

III  
Contents.

1. Report: Committee appointed to discuss the Rationalization of the Clove Industry, 1929. (Chairman: G. D. Kirsopp) X9(J661) 611.698-1.
2. Report on Clove Cultivation in the Zanzibar Protectorate. By R.S.Troup. 1932. X9(J661) 652-1131 pp. 17-41.
3. Report of a Mission appointed to investigate the Clove Trade in India and Burma, Ceylon, British Malaya and the Dutch East Indies. By G.D.Kirsopp, and C.A.Bartlett. 1933. X9(J661):574.698 Ok 4 pp. 42-85.
4. The Clove Industry of Madagascar. Report of a Visit to Madagascar. By A.J.Findlay. 1934. X9(J661) 691. N346-94 pp. 86-97.
5. Memorandum submitted by the Indian National Association of Zanzibar to Mr. B.H. Binder on the Clove Legislation. 1936. pp. 98-107. X9(J661) 506. Y73812. 698
6. Representation made by the Imperial Indian Citizenship Association to the Government of India on the Report. By B.H.Binder on the Zanzibar Clove Industry. 1936. pp.108-115. 96
7. Report on the Zanzibar Clove Industry. By B.H.Binder. 1936. X9(J661) 66. Y73812. 698 pp.116-139. 96
8. Report of the Commission appointed by the Secretary of State for the Colonies to consider and report on the Financial Position and Policy of the Zanzibar Government in Relation to its Economic Resources. (Commissioner: Sir Alan Pim.) 1932. pp.140-196. 96
9. Report on Co-operation and certain aspects of the economic condition of Agriculture in Zanzibar. By C.F.Strickland. 1932. X7-698. N326 pp.197-206.
10. Report on the Indebtedness of the Agricultural Classes, 1933. By C.A.Bartlett and J.S.Last. 1934. X9(J661) 692. N326 pp.207-221.
11. Report of the Commission on Agricultural Indebtedness and Memorandum thereon by the Government of Zanzibar. (Commissioner: C.E.Law.) 1935. X9(J661) 692. N326 pp.222-229.
12. Report of a Sub-Committee of Zanzibar Advisory Council on Education on Grants-in-aid and on the Reorganization of Indian Education, Nov. 1935.. X9(J661) 692. N326 pp.230-241.
13. Report by Mr. K.P.S.Menon on the effect of the recent legislation passed by the Government of Zanzibar on Indian interests. 193. pp.242-253.

**REPORT**

**of the**

**COMMITTEE**

**appointed to discuss the**

**RATIONALIZATION OF THE CLOVE  
INDUSTRY.**

ZANZIBAR :

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## CONTENTS.

NOTE.—*It has been found necessary to omit Appendix I containing the record of the Committee's proceedings and Appendix II containing the replies of members of the Committee to the Questionnaire on the subject of the proposals of the President of the Clove Growers' Association.*

	PAGE.
Minute by the Chairman forwarding the Committee's Report ...	1
Heads of Discussion ... ..	4
The Report of the Committee ... ..	8
Memorandum by the Honourable Seyyid Salim bin Kindeh ...	14
Memorandum by Mr. C. A. Bartlett ... ..	15
Memoranda by Members of the Committee on the Stabilization of Clove Exports—	
By the Chairman ... ..	19
By Mr. Ranchoddas Asher ... ..	21
By Mr. R. V. Stoue ... ..	21
By Sheikh Muhsin bin Ali ... ..	23
Memorandum by the President of the Clove Growers' Associa- tion ... ..	24

## ZANZIBAR PROTECTORATE.

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### REPORT OF THE COMMITTEE ON RATIONALIZATION OF THE CLOVE INDUSTRY.

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#### MINUTE BY THE CHAIRMAN.

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Honourable Chief Secretary.

I regret the delay in submitting the attached Report which has been occasioned by the fact that members of the Committee, representing the Chamber of Commerce, the Arab Association, and the Indian National Association, felt obliged to refer it to their respective organizations before appending their signatures.

2. I wish to record that the meetings of the Committee were uniformly well attended, and that an active interest in the discussions was maintained throughout, the Arab representatives being by no means the least articulate. In so far, therefore, as the Committee was appointed with the object of creating an interest in the re-organization of the clove industry on rational lines, it may be said to have justified its appointment.

3. The proposals put forward by Mr. Kirkham, as President of the Clove Growers' Association, were the subject of prolonged discussion and, as the documents included in Appendix II of the Report\* betoken, received the serious consideration of members of the Committee. I wish to emphasize that the nature of the criticism which these proposals have invited should not be regarded as indicating any hostility on the part of members to the Clove Growers' Association as such. Indeed, I formed the impression that the development of the Association on conservative lines may look for a very general measure of public support.

4. Mr. Crofton was very anxious that the Committee should give a definite lead in regard to the stabilization of clove exports, and I regret that it was not possible to discover a system of export control for this purpose which commanded the unanimous support of the Committee. If this question is to be pursued—and I certainly think that it ought to be—it should be referred to a small working committee capable of carrying out the detailed investigations necessary to evolve a reliable and acceptable scheme.

5. I trust that immediate action will be taken with reference to the collection of reliable statistics of production (*see* paras 12-14 of the

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\* These documents have not been printed.

Report). I am very strongly in favour of collecting such statistics through the medium of a licensing system, which could be made to serve many useful subsidiary purposes, *e.g.*, the elimination of unsuitable storage premises. If a small committee were appointed to advise on this question at once, it might be possible to introduce any necessary legislation at the next meeting of the Legislative Council.

6. The establishment of a licensing system for the control of exporters and dealers operating in the town of Zanzibar should be followed by a revision of the present loose and inadequate system of licensing produce dealers in the districts, and by the establishment of properly regulated district markets. While it is to be recognized that licensed produce dealers as a class render very useful services, it is beyond dispute that their numbers are out of all proportion to the needs of the clove and coconut industries, especially since the improvement of the Protectorate's communications has made it possible to organize the collection and distribution of produce on economic lines. It was, I think, the general opinion of the Committee that these intermediaries, who carry none of the risks incidental to production or exporting, are securing an unduly large share of the profits accruing to the clove industry and that the less reputable dealers afford active encouragement to the illicit traffic in stolen nuts which is having such a baneful effect upon the quantity and quality of the Protectorate's copra output. Until they are segregated in centres related as far as possible to the new road system, and until their activities are regulated on more rational lines, no co-operative movement—whether established on the comprehensive basis of the Clove Growers' Association or in accordance with more orthodox principles—can hope to make substantial headway. To impose a reasonable control over the operations of these intermediaries and to reduce their numbers to reasonable dimensions must necessarily be the work of years. An early start is, therefore, all the more imperative.

7. It is usual to regard the clove industry and the coconut industry as self-contained units of our agricultural economy. I have gathered the impression, during the course of the Committee's discussions, that these two industries are, to no small extent, not separate but complementary activities. This conception of the Protectorate's industrial organization appears to me to be of fundamental importance and, how far it is applicable, a matter deserving of close investigation, for agricultural as well as fiscal policy is apt to be framed on the assumption that cloves and coconuts are the produce of water-tight undertakings.

8. Mr. Kirkham, to whom the Committee is under a great obligation—not only because his scheme for the development of the Clove Growers' Association provoked keen interest and thoughtful enquiry regarding the agricultural organization of the Protectorate but also because of the expert advice which he freely gave in connection with the other subjects of discussion—is not a signatory to the Report, to which he has appended a short memorandum by way of rejoinder. He

suggests that in the work of reorganizing the clove industry "there can be only one real difficulty: to decide whether there is any occasion to organize the industry". That is a view which I am sure does not go to the root of the matter. The Royal Commission of Agriculture in India, in the concluding chapter of its Report, expresses the conviction "that no substantial improvement in agriculture can be effected unless the cultivator has the will to achieve a better standard of living and the capacity, in terms of mental equipment and physical health, to take advantage of the opportunities which science, wise laws, and good administration may place at his disposal. Of all the factors making for prosperous agriculture, by far the most important is the outlook of the peasant himself". The real difficulty is not in deciding whether there is any occasion to organize the industry, but in imparting to those who are engaged in the industry the ambition to achieve a better order of society and the ability to co-operate in the work of organization.

G. D. KIRSOPP,  
*Chairman of Committee*

Zanzibar, 12th June, 1929

## HEADS OF DISCUSSION.

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NOTE.— These Heads of Discussion, which were communicated to the Committee by direction of the Acting British Resident, were not intended to be "terms of reference" but rather to be suggestions as to the lines on which the Committee's investigations might proceed.

### 1. Objects of Rationalization.

"The Conference considers that one of the principal means of increasing output, improving conditions of labour and reducing costs of production is to be found in the rational organization of production and distribution.

The Conference considers that such rationalization aims simultaneously:

- (i) At securing the maximum efficiency of labour with the minimum of effort;
- (ii) At facilitating by a reduction in the variety of patterns (where such variety offers no obvious advantage) the design, manufacture, use and replacement of standardised parts;
- (iii) At avoiding waste of raw materials and power;
- (iv) At simplifying the distribution of goods;
- (v) At avoiding in distribution unnecessary transport, burdensome financial charges and the useless interposition of middlemen;

Its judicious and constant application is calculated to secure:

- (i) To the community greater stability and a higher standard in the conditions of life;
- (ii) To the consumer lower prices and goods more carefully adapted to general requirements;
- (iii) To the various classes of producers higher and steadier remuneration to be equitably distributed among them."—  
(*Resolution of International Economic Conference, 1927.*)

### 2. Co-operation.

(i) *General Principles:* "The agriculturists of the different countries contribute to the improvement of their standard of living and to the general prosperity by utilising to an increasing extent all forms of co-operation; co-operative supply societies, either for the technical or domestic requirements of members; co-operative selling organisations for the regular marketing of products; producers' co-operative societies for the intermediate processes between the production of the raw material and the sale of the finished product; co-operative credit societies to meet the need for capital (bringing equipment up to date, improving the cultivation of the soil, storage of products).

Co-operative institutions thus increase the purchasing power of agriculturists both as producers and as consumers. At the same time, they further economic progress both by increasing productivity and improving quality and also by making it possible to utilise fully the products of their soil and their by-products. Lastly, they assist the organisation of markets by methods which reduce to a minimum the costs of distribution."—(*Special Resolution of the International Economic Conference, 1927.*)

(ii) *Co-operative Credit Facilities*: "The best form of institution appears to be the co-operative credit society operating by means of resources which the very fact of association enables it to procure and to increase with or without the assistance of the public authorities."—(*Special Resolution of the International Economic Conference, 1927.*)

The objects for which credit should be made available require definition.

(iii) *Co-operative Marketing*: "Agricultural co-operative societies will contribute to a still greater rationalization of economic life in proportion as they develop their relations with the consumer's co-operative societies. Direct commercial relations between producers and consumers, and between associations of producers and of consumers, eliminate superfluous intermediaries, and, when they are sufficiently widespread, result in the establishment of prices which are advantageous to both parties."—(*Special Resolution of the International Economic Conference, 1927.*)

(iv) *Co-operative Transport*: Co-operative transport has been started by provision of one lorry for Zanzibar and one for Pemba. The question arises how soon and how far this nucleus should be augmented. The institution of collecting stations is settled policy.

(v) *Co-operative Selling for the Stabilization of Clove Exports*: The object of stabilization is to avoid alternate waves of over-production and under-production, of high prices and low prices, of big profits and little or no profits.

"In the policy of rational industrial administration, as it is usually presented, restriction is involved on the ground of the attempt to adapt production to a proper rate, to overcome duplication, overlap or speculation."—(*Macgregor.*)

"The agriculturist should find his just remuneration not through speculation but in the regularity of prices, permitting him to reckon on a legitimate return equivalent to that accorded to other producers."—(*General Resolution of the International Economic Conference, 1927.*)

The question arises whether cloves, if a pool is achieved, should be sold by auction or at fixed prices according to grades.



(vi) *Co-operation in Relation to the Employment of Labour:* Labour for picking, without any kind of compulsion, rates of remuneration, conditions of work and accommodation, require early and rational organisation. Labour for picking is an important partner in the industry and should be accorded fair, all-round treatment.

Rational organisation of picking opens a vista of considerably increased production, without serious detriment to prices if regulation of exports is achieved.

Organisation of labour for cultivation equally requires rational organisation: The institution of co-operative labour gangs and labour camps might be considered. Proper remuneration, conditions of work and accommodation need to be discussed.

### **3. Standardisation and Grading of Produce.**

The Bill intituled "The Agricultural Produce Export Decree, 1928", provides for the inspection and grading of agricultural produce to be exported from the Protectorate and generally for the regulation of such export. The question arises how soon and how far grading should be undertaken.

### **4. Agricultural Education.**

"The Conference is of opinion that agricultural instruction at all stages and the technical training of the agriculturists should receive the attention of the different Governments as well as of agricultural associations."—(*General Resolution of the International Economic Conference, 1927.*)

An Agricultural School is contemplated.

### **5. Scientific Research and Experiments.**

"The general adoption of technical improvements, the scientific organisation of production and stock-breeding, of the campaign against the diseases and the enemies of plants and animals . . . . . will permit agriculturists to reduce their costs of production in their own interests and to the benefit of consumers."—(*General Resolution of the International Economic Conference, 1927.*)

Discussion of existing research and main objectives to be pursued. Dissemination of results of research.

### **6. Prevention and Control of Diseases.**

"Diseases which affect plants and animals diminish agricultural production and should be scientifically combated, on the basis of an international plan and international agreements."—(*Special Resolution of the International Economic Conference, 1927.*)

Legislation is on the stocks for the prevention and eradication of diseases and pests affecting vegetation.

### 7. Agricultural Census and Statistics.

"The Conference considers it necessary\* that a better service of periodical agricultural statistics should be instituted, especially as regards live-stock and animal products. The data collected by the International Institute of Agriculture show that, during the last twenty-five years, only thirty-seven countries, representing less than half the total area and about 30 per cent of the population of the world, have as yet proceeded to the compilation of an agricultural census."—(*Special Resolution of the International Economic Conference, 1927.*)

A census of agricultural production is contemplated in 1930.

The question arises how accurate statistics of production can be maintained now that cloves are no longer brought to the Customs. The institution of a pool would solve the difficulty.

**THE REPORT OF THE COMMITTEE.**

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The Committee was constituted as follows:—

The Comptroller of Customs, *Chairman*.

The Honourable the Treasurer

The Honourable the Director of Agriculture	}	Representing the Zanzibar and Pemba Clove Growers' Association.
The Honourable Seyyid Salim bin Kindeh		
The Honourable Sheikh Seif bin Suleiman		

Mr. C. A. Bartlett	}	Representing the Chamber of Commerce.
Mr. R. V. Stone		

Mr. Harji Bhanji	}	Representing the Indian National Association.
Mr. Ranchoddas M. Asher		

Sheikh Mohammed bin Ali bin Khamis	}	Representing the Arab Association.
Sheikh Muhsin bin Ali		
Sheikh Suleiman bin Said		
Sheikh Nasur bin Suleiman		

2. The Committee was appointed in February, 1929, for the purpose of discussing "the application of Rationalization to the clove industry and, in this connection, certain proposals put forward by the Clove Growers' Association", and was furnished for general guidance with the Memorandum, "Heads of Discussion", which is printed on page 4.

3. We have understood that the object of Government in appointing the Committee was to stimulate interest in the rational organization of the clove industry and to invite an exchange of views as to how the various problems arising therefrom might best be solved in the common interest of all those who, either in the field of production or of commercial service, are dependent upon the staple industry of the Protectorate. It would not, therefore, be within our province to make detailed recommendations on the various subjects which have come under our review.

We wish, however, to invite the special attention of Government to our conclusions regarding those matters which are referred to hereunder and to our attitude towards the proposals advocated by the President of the Zanzibar and Pemba Clove Growers' Association.

Our views on various other aspects of the rationalization of the clove industry are stated in the attached record of the Committee's proceedings (Appendix I).\*

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\* Not printed.

### 1. Proposals Put Forward by the President of the Clove Growers' Association.

4. The main features of these proposals, as outlined to the Committee by the Director of Agriculture in his capacity as President of the Association, may be summarized as follows:—

(i) It is proposed to organize the Clove Growers' Association so as to enable it to operate as a combined Land Bank and Marketing Agency.

(ii) The scheme relies upon the imposition of a compulsory levy at the rate of Re. 1 per frasila, for the benefit of the Association, on all cloves produced for sale, whether such cloves are sold through the Association or otherwise.

(iii) This levy, estimated to yield an average annual income of Rs. 6 lakhs per annum, would provide funds for general finance and a guaranteed security which would enable the Association, through its Land Bank, to borrow the necessary capital to enable it to take over the fixed debt of members in respect of mortgage liabilities (estimated at about Rs. 30/40 lakhs) and the smaller floating debt in respect of forward sale contracts.

(iv) The transfer of the industry's indebtedness to the Land Bank would release members of the Association from existing obligations to sell their produce through middlemen. Self-interest might be relied upon to induce them to sell through their Association, because of the advantages pertaining to combined selling through an agency which would control the bulk of the crop and because only producers who sold through the Association would receive credit for the levy to be collected on their produce.

(v) It is proposed to utilize existing services for the collection and transportation of cloves. Licensed clove dealers would become the licensed agents of the Association operating in accordance with a defined procedure and on a commission basis.

(vi) The procedure contemplated would impose upon licensed agents the obligation of receiving cloves from producers against a fixed sum in the nature of an advance, of bulking the cloves so received, and of delivering them to one of the Association's collecting stations. Licensed agents would, on delivering cloves so received, be reimbursed in respect of advances made and expenses incurred, and paid their commission at a fixed percentage rate. The balance of proceeds due to members, *i.e.*, the difference between the ultimate sale price and the original advance plus expenses, would be made in quarterly or half-yearly payments.

(vii) In order to secure the stabilization of clove prices, the Association would regulate exports through the expedient of controlling the quantity of cloves released periodically for sale, *i.e.*, it would in the course of each year release the approximate *average* annual output.

carrying forward the balance in a year of high production until the next season. Advances would be made to members in respect of stocks carried forward.

(viii) It is an essential part of the scheme that the institution of the Land Bank and the establishment of the Marketing Agency be inaugurated concurrently and as complementary parts of the project. For on the one hand the marketing scheme could not be put into operation until the existing indebtedness of the industry has been liquidated, and on the other hand if the liquidation of the indebtedness preceded the establishment of the selling organization the interval would enable middlemen and moneylenders to regain their hold on a portion of the industry, so depriving the Association of the complete control required to make these proposals effective.

5. It is to be explained that these proposals were not submitted to the Committee as a detailed scheme. Their main features were, however, elaborated during the course of our discussions of the various subjects enumerated in the Memorandum. In view of this procedure, it was thought advisable that members should be given an opportunity of considering the proposals as a self-contained scheme and of expressing their individual views as to their practicability. These views were elicited in the form of replies to a questionnaire, and we trust that the replies submitted (Appendix II)\* will be of assistance to Government in appreciating the nature of the issues involved.

6. Mr. Kirkham's proposals are of so far-reaching a character, they contemplate so many drastic changes in the economic life of the Protectorate, and they challenge so many vested interests that there is inevitably divergences of opinion among members of our Committee as to their merits in matters of detail. But it is to be concluded from the opinions recorded that the scheme as a whole does not enjoy the support of any of the unofficial members of the Committee. It is far from clear that there is to be found in the ranks of the Association the cohesion, enthusiasm and business capacity necessary to carry through so bold an undertaking, even with the full weight of Government support behind it. There is in the minds of most members of the Committee grave doubts—indeed, there is in the minds of certain members an entire scepticism—as to the possibility of a Land Bank on the lines proposed being able to free the clove industry from its existing indebtedness—a condition essential to success. In any event, the transference of existing debt to a Land Bank, even if it were feasible, would be a slow and cumbersome process so as to make the concurrent application of the Land Bank and Marketing projects impossible of achievement. And there is no room for doubt that the attempted operation of the scheme would invite the hostility of the interests now responsible for the financing and marketing services on which the industry now relies. In the face of such hostility it is difficult to see how these proposals could be put into operation.

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\* Not printed.

## II. Co-operation.

7. We are of the opinion that the establishment of a successful co-operative movement must be built upon the foundation of a workable system for the provision of agricultural credit. We have, however, been unable to reach unanimity of opinion as to the type of institution which, having regard to local conditions and to the Arab temperament, would be the most suitable medium for the development of such a system. While some of us are disposed to look for the solution of this problem to the institution of small credit societies on the Raiffeisen model, the Arab members are not alone in the belief that a Land Mortgage Bank would afford greater and more immediate help in placing the clove industry on a sounder financial basis. We record the view that the question is one of primary importance and one which should receive the most careful enquiry.

8. Being of the opinion that the co-operative principle must first of all find expression in the provision of credit facilities before its application can be extended advantageously to other fields of activity, we do not feel justified in suggesting that any steps be taken at present for the encouragement of other co-operative undertakings, such as marketing and transport.

9. We wish, however, to qualify these views to the extent of advocating that the general activities of the Clove Growers' Association, where experience suggests that these activities have been successful and might be expanded with benefit to members of the Association, should be given the generous support of Government. We feel that, apart from its significance as an experiment in combined action, the Association movement is making a valuable contribution to the fundamental work of educating producers in the economics of production and marketing.

## III. Stabilization of Clove Prices and Export Regulation.

10. The stabilization of clove prices through the regulation of exports was referred to the Committee as a problem for which a solution is to be sought through the development of co-operative selling. We have thought fit, however, to examine the subject from a wider stand-point, and, in addition to the co-operative method, other schemes for the regulation of clove exports have received our consideration. These schemes, as elaborated by members of the Committee, are set forth in Appendix III [page 19].

11. While we are not agreed as to the method of regulation which would be most suitable for adoption in Zanzibar, we are unanimous in the view that the establishment of stable prices and steady exports would be of great benefit to the industry. We, therefore, think that at an early date measures should be undertaken for the purpose of rationalizing the exportation of cloves from the Protectorate.

The problem, however, is to be recognized as one which presents many difficulties and which requires careful investigation, including the study of methods in successful operation elsewhere.

#### **IV. Statistics of Production.**

12. Our discussions on the subject of export regulation have served to confirm us in the opinion that it is essential to maintain reliable statistics of production. The compilation of such statistics has in the past been facilitated by the system of collecting the clove tax in kind, which shepherded all clove deliveries through approved Customs stations. Under the new method of taxation, only a portion of the Zanzibar crop is marketed through the Customs, and the records of production now available are accordingly incomplete.

13. Our impression is that there are only two methods by which it would be possible to obtain complete statistical records of production. One method would be to place all clove exporters and dealers operating in the town of Zanzibar under licence, a condition of licensing being the periodical declaration of stocks received from the districts. The alternative method would be to compel all cloves entering the town to pass through a Customs market.

14. While we are not agreed as to which of these methods should be adopted, it is our opinion that one system or the other should be brought into immediate operation. We venture to suggest that a small committee, representing the producing and commercial interests in the industry, might be appointed to advise Government in the matter.

#### **V. Labour.**

15. The Memorandum directs attention to the subject of "Co-operation in relation to the employment of Labour", but the discussion of this question has inevitably led to a consideration of the labour problems which press upon the industry under existing conditions of production.

16. One of the most urgent of these problems arises from the unsatisfactory character of the labour contracts, under which pickers are engaged during the clove harvest. The plantation owner finds it impossible to enforce the conditions of these contracts, and the extensive abuse of the contract system on the part of clove pickers makes economical harvesting impossible.

17. We see no remedy for this evil, which does not rely on the registration of clove pickers, and we are of the opinion that the introduction of a system of registration, to be applied not only to harvesters but to labour generally, would be to the mutual advantage of the native population and the agricultural industries of the Protectorate.

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## VI. The Copra Industry.

18. We wish to invite the attention of Government to the serious loss to agriculture and to trade, which results from the extensive practice of picking coconuts before they have matured. We are reliably informed that the copra output of the Protectorate is reduced on this account by a quantity equal at least 30 per cent of the present yield. The matter is, therefore, one of primary importance.

19. While the evil to which we refer is clearly the outcome of extensive thieving, supported by unrestricted trading in stolen nuts, no single and effective remedy is apparent. We believe, however, that these practices could, to a considerable extent, be controlled by measures designed:

- (i) to break down the "unwritten law" that a fallen nut is the property of the finder;
- (ii) to regulate conditions governing the leasing of coconut crops; and
- (iii) to establish a licensing system, which would compel produce dealers to register their premises and keep proper records of their transactions.

20. We wish to acknowledge the valuable assistance rendered to the Committee by Sheikh Mohammed bin Seif in the capacity of Interpreter.

G. D. KIRSOPP, *Chairman.*

C. A. BARTLETT.

R. V. STONE.

RANCHODDAS M. ASHER.

HARJI BHANJI.

MOHAMMED BIN ALI BIN KHAMIS.

MUHSIN BIN ALI.

SULEIMAN BIN SAID.

SALIM BIN KINDEH.

NOTE.—The Honourable Treasurer and Sheikh Seif bin Suleiman proceeded on leave before the work of the Committee was completed. Sheikh Nasur bin Suleiman has been absent from Zanzibar since the Report has been typed, but he saw the Report in draft and agreed to its recommendations.—G.D.K.



**MEMORANDUM BY THE HONOURABLE SEYYID SALIM  
BIN KINDEH ON THE CLOVE GROWERS' ASSOCIATION  
PROPOSALS.**

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I agree with the proposals put forward by the President of the Clove Growers' Association with the exception of borrowing a large sum of money from the bank. My reasons are that the interest on the amount so borrowed, together with the working expenses, will give no inducement to the plantation owners to borrow from the Association. At present the majority of members are heavily indebted, and I do not think that they will be benefited by such transactions, and those who are less indebted will prefer to remain where they are charged nearly the same amount of interest as the Association will charge; therefore no effective support will be given to this scheme by the members.

In my opinion the Government should lend the Association six lakhs of rupees per annum for a period of three years without interest, and at the fourth year an interest of six or seven per cent should be charged, and a start of repayment to the Government should be made at three lakhs per annum. This money can be obtained from the sale of Government plantations and the savings of Harbour Works, which is nearly completed. By this action the Government will support the industry and strengthen the Association to control the whole clove crop in order to regulate its sales.

With six lakhs from the Government and about six lakhs from the Re. 1 levy, will bring a total of 12 lakhs per annum. A committee should be appointed to handle this amount consisting of the Director of Agriculture, the Provincial Commissioner, the Treasurer and two members of the Clove Growers' Association. A start should be made to lend money and other financial assistance to those who have small debts at a lower rate of interest than it is charged at present by moneylenders, say four per cent; any person wishing loan should be requested to bring the plan of his shamba passed by an official surveyor. This will draw in the less-indebted class, and by lapse of time nearly all the members will automatically join the Association. Then an increase in the interest can be made.

**MEMORANDUM BY Mr. C. A. BARTLETT ON THE CLOVE  
GROWERS' ASSOCIATION PROPOSALS.**

The Association desire to organise and operate a Land (Mortgage) Bank and Co-operative Marketing Agency. Before being able to do either they have to organise themselves.

I am given to understand that the membership of the Association is comprised of practically all the producers of both Islands, and, through its President and Organiser, considers the institution of a Land Bank the only solution to the unfortunate situation in which the clove industry now finds itself.

During the discussions stress has been laid on the indebtedness of the clove producers, but no particular reference has been made to the coconut industry. My remarks are, therefore, more particularly directed to the clove industry.

I assume, no information having been given on these points, that the objects of the Land Bank would be:

- (1) The liquidation of old debts.
- (2) The redemption of land and houses of agriculturists.
- (3) The improvement of land and methods of agriculture, etc.
- (4) The granting of short-term loans to the marketing organisation.

The objects of the Co-operative Marketing Association would be:

- (1) The advancing of funds to producers for picking, handling, transport and for all charges incidental to the harvesting of crops (the funds will be advanced by the Land Bank *see* No. 4 above).
- (2) The selling of all produce.
- (3) The storage and control of all produce.
- (4) The grading of produce.
- (5) The advancing of loans against produce stored (funds will be advanced by the Bank—*see* No. 4 above).

I will state in a general way my ideas of the position of agriculture in Zanzibar and roughly explain the present methods of financing and operating the crops.

I venture to suggest that a comparison with old methods is necessary in order to arrive at a correct angle from which to view the proposals now made.

From time immemorial the agricultural section of the community of the Protectorate has been indebted in some way or other, and this is not confined to these islands, it being the unfortunate situation in which the vast majority of agricultural classes in the East find them-

selves. It is generally held that the critical position of agriculture is due to this indebtedness and that the agriculturist cannot free himself of his burden owing to the exorbitant rate of interest charged by the moneylenders.

Many arguments have been advanced to provide a reason for the original cause of indebtedness, and no useful purpose would be served by going over these again. One must, perforce, admit that the situation exists and is a problem extremely difficult of solution.

For myself, I believe that the nature of the agriculturists is now largely responsible for this indebtedness. He is, in the majority of cases, illiterate, thriftless and extravagant. They are, in my opinion, answerable for the present situation. Natives particularly (said to own about 50 per cent of the clove trees in the Protectorate) have no idea of the value of money, or might I suggest, would a Land Bank educate them otherwise. Public opinion states a case to the effect that the clove industry is overburdened with debt, so much so, indeed, that if something is not done it will become impossible for the producers to continue picking and marketing. For many years has this opinion been expressed, although curiously enough it has not so far caused any restriction in the crop; on the contrary it appears to have expanded. There is, to my mind, little doubt that a considerable number of plantations are overburdened with debt and are, as a consequence, uneconomical of operation, although the cause is difficult to trace. I consider heavy borrowing, during the years when land and trees had an artificial value, has intensified the position.

The planter, therefore, finds himself in the position of being overcapitalized, behind with his interest payments, and generally very much restricted, so much so, indeed, that his crop is mortgaged years before it is picked. I am sceptical as to whether a Land Bank, bearing in mind the limited intelligence of the producer, could be operated in this Territory to be advantageous to the industry as a whole, and self-supporting.

#### **Land Bank.**

The utility of any Land Bank must be governed, in the main, by the rate at which it can afford to lend money. The proposals of the Clove Growers' Association do not lead me to assume that they will be able to lend money at a cheaper rate than, say, the Public Trustee, or do I think will they be able to lend at such an attractive rate as to secure sufficient volume of legitimate business to maintain the Bank and make it profitable. The Association, for the purpose of capitalising the Bank, propose to borrow money from another organization. Judging by the Bank rate to-day, this money will not be cheap, and when the money is put into service provision will have to be made for redemption spread over a number of years, the creation of Bad Debts Reserves, organisation expenditure, legal fees, etc., and, I presume, interest on deposits which members of the Bank might lodge.

It is to be assumed that the estates which are indebted at present are, in most cases, behind with interest payments, and secondly that in many cases they are overvalued.\* It might be, therefore, that the proposed Bank will have to examine and admit into its books estates which are economically unsound. This would not be serving any useful purpose.

It seems to me, looking at this question, that a Land Bank in Zanzibar holds for many a fascination which can only be explained by the distance from which it is viewed.

### Marketing.

The present system of finance to market the clove crops is, perhaps, a little complicated, but it has at least proved serviceable by the test of time, although I have no doubt whatsoever that the method is largely responsible for the very low price which the producer actually receives. On the other hand, I do not consider that the marketing organization as proposed will, in any way, alleviate this position or place the producer in more direct contact with the exporter and consumer.

I accept public opinion that the majority of the producers are in debt, and I also accept the opinion that the bulk are small holders. The middleman, established throughout the Protectorate, is the first man to whom the producer turns. He supplies all his wants, both in cash and kind, and is at present both the Banker and "Woolworths". To him he turns in the lean years for money to keep him going, and in years of plenty (*sic*) for supplying his wants and extravagances.

It must be borne in mind that the agriculturists are not paid daily or weekly, but secure a return for their production annually, and if all the labour of the world was so placed it would necessarily mean a very extraordinary expansion in credit systems. Situated as he is, the middleman offers a very fine service, doubtless at a very fine profit, but it is inconceivable to me to think that the institution of a co-operative marketing organisation will in any way remove the producer from the circle of middlemen. Propaganda and education might, in time to come, be responsible for the producer accepting a different view, but, surely, at present no legislation in the world will prevent the middleman from maintaining his position.

I cannot see how or why any producer should be compelled to operate through a co-operative marketing organization; I can only imagine that it must be a voluntary act on his part, induced by better prices and a better service.

The Clove Growers' Association may have considered many of the obstacles in the way of organising their proposals, but I would suggest that they have not paid sufficient attention to the mentality of their members. Experience shows that great care and business ability are required in the organization of any marketing society.

Proper business management is most essential, more particularly when it is realised that the most formidable opposition would come from local vested interests.

It is necessary to realise that, in embarking upon a marketing scheme, the Clove Growers' Association must first afford consideration to the buyers and well-established middlemen.

The middleman is the first man to receive the crops, and he has, as a consequence, the first say in their disposal, and I venture the opinion that he is the prosperous section of the community engaged in the clove business. For many years has he maintained this position and to-day is remarkably strong, and a force to be reckoned with. It is true that many are uneducated and possibly keep no records, but the fact remains that they still control the finance movement and direction of the crops, and I believe, merely because they are both Banker and general provider.

#### **Moneylenders.**

All the legislation in the world will not eliminate the moneylender, and you cannot legislate to stop people borrowing. The Zanzibar agriculturists are born borrowers. They see no evil in the practice of borrowing money. *They inherit debt in many cases* and continue to borrow, and I venture to suggest that, if by some stroke of fortune they are relieved of debt, their immediate intent is to accumulate further debt, irrespective of whether or not the property they encumber can carry the charge. Surely this presents a magnificent field for the moneylender who is prepared to accept great risks for an extortionate rate of interest. He is convinced that he should charge high rates for the risks he accepts (knowing full well the mentality of the people borrowing), but is unwilling to foreclose. He has no desire to be a landlord, he wishes to remain a moneylender. It is not their business in Zanzibar to lend money on good security at low interest rates.

The foregoing, therefore, provides a perfect setting for the operations of the moneylender, but barely a sufficient reason for the institution of a Land Bank.

**MEMORANDA ON THE STABILIZATION OF CLOVE EXPORTS.**

[Appendix III.]

**MEMORANDUM BY Mr. G. D. KIRSOPP, CHAIRMAN OF THE COMMITTEE.**

Statutory powers are already vested in the British Resident under Section 93 of "The Customs Management Decree, 1926", to regulate the export of goods from the Protectorate.

This power of regulation would be exercised in relation to the clove trade through the medium of export licenses to be issued to exporters by the British Resident, acting on the advice of a "Clove Control Board" constituted on something like the following lines:—

The Director of Agriculture.

The Comptroller of Customs.

Four exporters and to be so chosen that the interests of the principal consuming markets (*i.e.*, the Indian, American, Far East and European) are each represented.

Two producers. One at least being a member of the Clove Growers' Association.

One or other of the local Bank Managers. If necessary an additional member appointed for special reasons.

A paid secretary without voting powers—preferably a junior Government official.

The function of the Board would be generally to organize the defence of the local clove industry against price fluctuations and depressions caused by seasonal variations of output and speculative manipulations of the market by overseas consumers. In particular the functions of the Board would include:

- (i) fixing the quantity of cloves to be released for export under licence during each seasonal year;
- (ii) determining the proportion of the annual seasonal quota to be released for shipment each monthly, quarterly or four-monthly period according to the requirements of the various consuming markets;
- (iii) registering applications for export licences; investigating such applications and making recommendations for the issue of licences;
- (iv) registering, investigating and making recommendations regarding applications for Government storage facilities (referred to hereunder);

- (v) keeping detailed records of clove-stocks held (1) in Government godowns and (2) in private godowns in Zanzibar;
- (vi) organizing an intelligence system (a) for the study of the trade practice, special requirements, and general conditions of the principal overseas clove markets, and (b) for the study of the redistribution trade of the principal overseas markets with a view to expanding the area of direct contact between Zanzibar and ultimate clove consuming centres.

#### **Licensing System.**

At present all dealers in cloves operating outside the township and all clove brokers are subject to licence. To operate the scheme it would be necessary to tighten the licensing system as applied to brokers and to extend it by bringing under licence exporters and dealers operating within the township, as well as premises used for the storage of cloves within the township. A condition of licence would be the furnishing of returns of stocks held to the proper authority, *i.e.*, the Control Board.

#### **Export Licences.**

Licences to export would be issued in advance to meet ordinary trade requirements, *e.g.*, applications for licences for July-October shipment would be open to consideration from the 1st of April onwards, for November-February shipment from 15th July, onwards and for March-June shipment from 15th November.

It would be obligatory on all exporters to ship to the full extent of their export licences. Failure to do so would entail a penalty involving, *e.g.*, delivery of cloves equal to the unshipped balance for storage until the following season or suitable adjustment of export allocation during subsequent periods.

#### **Government Assistance.**

Government should assist in financing the scheme:

- (i) by providing storage accommodation for hold-over stocks at a nominal rental (this facility would not be extended to unshipped balances, for which export licences had been issued); and
- (ii) by guaranteeing loans on reasonable valuations and at a reasonable rate of interest on cloves deposited in Government godowns.

The above scheme aims at rationalizing the export of cloves under a flexible licensing system operated on business lines with the advice of clove merchants in touch with overseas markets and conversant with their requirements, and of producers with first-hand knowledge of harvest tendencies.

It further aims at permitting the free trading in hold-over stocks eliminated from export handling in a season of large production (subject to necessary restrictions on exporters' operations resulting from irresponsible applications for shipping allocations), and places on Government reasonable financial responsibilities, *i.e.*, the provision:

- (i) of secretarial and other expenses in connection with the work of the Control Board;
- (ii) of storage accommodation at nominal rental charges for hold-over stocks; and
- (iii) the guarantee (or, if necessary, the supply) of loans against hold-over stocks at a suitable rate of interest.

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**MEMORANDUM BY Mr. RANCHODDAS M. ASHER.**

The object aimed at is the financing of a reasonable carry-over of the output during a year of large production. During the coming season, the carry-over required to keep exports down to average figures might be placed at say 2,00,000 frasilas.

This carry-over should be financed by Government funds, possibly through the medium of a Land Bank.

The Bank should operate by entering the open market during the height of a season when the price of cloves has reached an uneconomic figure, purchasing freely until the necessary price adjustment had been effected.

The Bank should hold the cloves so purchased until overseas demand justified their subsequent release for sale.

In support of this scheme, it is claimed that the risk in financing the carry-over is negligible, as experience shows that a sharp rise invariably follows periodical price depressions. It would leave the determination of prices to the economic law of supply and demand and would offer no hindrance to the conduct of clove business in the normal way and through the usual channels.

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**MEMORANDUM BY Mr. R. Y. STONE.**

To attain the main objects of rationalization, which is control of exports and a reasonable return, any financial assistance by Government or outside sources *need only apply to the actual cloves produced*, which can then be a sound and financible proposition, whereas the further financing of shambas and production would not be.

It has been suggested in committee recently that a reasonable return to be aimed at is Rs. 16 per frasila; assuming this to be so, and that by controlling all exports this price can be obtained, then we have a definite basis to work on.



The idea I have in mind is one that would not involve Government in unreasonable liabilities or in the actual work or organization which would be necessary if Government undertook any direct financing.

We have two sound Banks in Zanzibar, and I am of the opinion that one or both would be prepared to co-operate and undertake the financial side necessary to the control of exports of cloves, provided the proposition put to them was a sound one.

The scheme I have in mind is as follows:—

The market price of cloves to be decided by Government at a reasonable rate, say not under Rs. 16 per frasila, and payment to be made to producers at this rate on delivery into official godowns in Zanzibar of cloves of the requisite quality.

A receipt to be given for the cloves against which the Bank would make payment in full for the quantity and rate shown on the receipt.

As security, the Bank would be given a lien on the cloves by Government, and Government would guarantee the realizable value of the cloves to be the rate shown on the receipt against which the Bank makes payment.

The Government to decide what quantity is shipped each month, and to hold an auction weekly, issuing an export licence to buyers for the quantity purchased at Government auctions.

The payments made to Government for cloves at these auctions to be paid automatically into the Bank, against payments made by the Bank in the first place to the producers; the Bank to charge interest on the monthly balance of unsold cloves to Government at a reasonable rate of, say, seven per cent.

This interest and other Government charges to be recovered by small margins on sales over that of the buying rate decided on cloves for the month.

If the world's demand after adoption of control showed a higher price was obtainable than, say, Rs. 16 or Rs. 17, the extra price decided on by Government over and above Rs. 16 or Rs. 17 to be used as a reserve for the season, and to be paid out at the end of the season in proportion as a bonus to producers.

It is claimed for this scheme that it will allow local merchants to continue to trade and export without interference to their legitimate rights with the difference that instead of buying from the producer they are buying at Government auctions. The risk that the Government is asked to take is the risk of the market value of the unsold monthly balance, which boils down to rationalization being a success or otherwise.

**MEMORANDUM BY SHEIKH MUHSIN BIN ALI.**

1. The Growers' Association should buy the cloves when the price falls below the economic value, and sell them when the price goes up, and distribute the profits amongst the producers.
2. The Association should receive cloves on mortgage from the producers who may offer them and advance to them three-quarters of the purchase price.
3. The Association should not sell the mortgaged cloves for a period of six months without the consent of the owners, thereafter it can sell them if the price goes up and the owners will not suffer any loss. In any case, the owners should be informed in writing.
4. In case the price does not go up, the Association should buy the cloves mortgaged with it at the price at which it has bought or is buying cloves.

The foregoing suggestions will result in the following benefits:—

1. The Association will benefit the producers in two ways, viz., it will enhance the value of their properties and it will also get them profits from the transaction.
2. The greater portion of the cloves will be in the hands of the Association, and it will be at liberty to dispose of them without hinderance from anyone, whether it sells them by instalments or otherwise.
3. The Association will be the medium between the producers and the consumers, and it can export the cloves to them directly.
4. At last the seller will be the only one who will control the prices.

**MEMORANDUM BY THE PRESIDENT OF THE CLOVE  
GROWERS' ASSOCIATION.**

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**Reply to the Report of the Committee on the Rationalization of the  
Clove Industry.**

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It is strange that the organisation of an industry so small and compact as that which forms the mainstay of these two islands should present a difficult problem for the statesman.

There can be only one real difficulty: to decide whether there is any occasion to organize the industry. That is the fundamental problem, and although the minutes of the meetings show that occasionally a member pointed out some of the dangers of the present situation this fundamental problem was not thrashed out. It is rather unfortunate that even the members who were most critical of every suggestion put forward in the intended interests of the producer would not boldly come forward with a thoroughly conservative policy and maintain that there was no occasion to depart in any way from the traditions of the past.

There is surely somebody who can state the case for non-interference, and it would help enormously to have it put forward. I am personally most anxious to be convinced that the industry will flourish best if left to itself, but until so convinced I must give myself and others the trouble and anxiety of finding a remedy for what appears to me to be a very unhealthy condition of affairs.

If an inhumanly detached view be taken of the position it can be maintained that so long as clove trees live the industry will survive; that the State should keep aloof and leave to economic forces all questions concerning the well-being of the individuals engaged in that industry.

That may, perhaps, be the correct attitude, but the agriculturist knows that the well-being of the trees depends upon the well-being of their owners. What of the next generation of trees and men?

To organise the clove industry, if such were desired, would present no insuperable difficulties. The sketch I have drawn of a means whereby this may be done will, I hope, be of help to those in the future should adversity bring home to the country the necessity of creating a powerful organization, though financing by the method suggested could only be done so long as Zanzibar maintains its virtual monopoly so that the consumer pays the levy money. In ten years' time this will not be the case.

As regards the details of the Report, I wish to express my admiration of the Chairman's excellent summarizing of the proceedings of the meetings.

I should like to point out, however, that the utilisation of voluntary helpers has never been suggested by me; the question upon that subject in the Chairman's Questionnaire is the first appearance of the idea.

In the main portion of the Report I regret that the Chairman has not drawn more attention to such views as were expressed upon the principal question of whether the present condition of the industry calls for any special action or otherwise.

V. H. KIRKHAM.

REPORT  
ON  
VEGETATION CULTIVATION  
IN THE  
ZANZIBAR PROTECTORATE

BY

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## CONTENTS.

	Paragraph.
<b>1. Introduction.</b>	... 1
<b>2. The Clove Industry of Zanzibar.</b>	
Historical	... 2
Importance of clove industry	... 3,4
Uses and markets	... 5
World demand and sources of supply	... 6
Production of Zanzibar	... 7
Possibility of an increased future output	... 8
Competition from other clove-producing countries	... 9,10
Competition from synthetic substitutes	... 11
Future prospects and policy	... 12,13
<b>3. Extent and Ownership of Clove Plantations.</b>	
Extent	... 14
Ownership	... 15
Large properties	... 16,17
Small-holdings	... 18
Government plantations	... 19
<b>4. Present Condition of Clove Plantations.</b>	
General	... 20
Soil and situation	... 21-24
Spacing	... 25,26
Form and productivity of trees	... 27
Distribution of age-classes	... 28-30
<b>5. Characters and Requirements of the Clove Tree.</b>	
Shape and development	... 31
Climate	... 32
Soil	... 33
Light and moisture requirements	... 34
Flowering	... 35-37
Yield	... 38
Vegetative reproduction	... 39
<b>6. Injuries and Causes of Mortality.</b>	
General	... 40
Drought	... 41
Unfavourable soil conditions	... 42
Fungi	... 43-47
Other plant parasites	... 48
Insects	... 49-51

	Paragraph.
<b>7. Schemes of Regeneration.</b>	
General	... 52
Proposals of the Agricultural Department	... 53
Basis of present proposals	... 54
Proposed scheme for the regeneration of private plantations	... 55-57
Summary of proposals for private plantations	... 58
Enforcement of regeneration scheme	... 59
Assistance to clove growers	... 60,61
Regeneration of Government plantations	... 62
Abandonment of unsuitable areas	... 68
<b>8. Methods of Regeneration.</b>	
Characteristics of the seedling	... 64
Natural regeneration	... 65
Nursery practice	... 66
Clearing and planting	... 67-69
Interplanting	... 70
<b>9. Tending Operations.</b>	
Cultivation, weeding and manuring	... 71,72
Pruning, pollarding and training	... 78
<b>10. Selective Breeding.</b>	... 74
<b>11. Harvesting.</b>	
Labour	... 75,76
Methods of picking	... 77
<b>12. Research and Experimental Work.</b>	
Conduct of work	... 78
Summary of research and experimental work proposed	79
Experimental and demonstration areas	... 80
<b>13. Staff.</b>	... 81,82
<b>14. Summary of Report.</b>	... 88

# REPORT ON CLOVE CULTIVATION IN ZANZIBAR.

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## 1. Introduction.

At the invitation of the Zanzibar Government through the Colonial Office, I visited the Protectorate in August, 1931, to investigate the question of clove cultivation and to make recommendations. The economic aspects of the clove industry had already been investigated and reported on by Mr. C. F. Strickland, whose report I had an opportunity of reading before my arrival in Zanzibar. My inquiries, therefore, were confined as far as possible to the cultural side of the industry, and to such economic questions as have a direct bearing on that side. In the course of my visit, which covered the period 2nd to 29th August, I inspected many clove plantations representative of different forms of ownership, both in Zanzibar and in Pemba; I also had an opportunity of discussing matters relating to the clove industry with a number of persons, both official and non-official. It would be impossible to express my individual acknowledgments to all from whom I received assistance, but I desire in particular to record my grateful appreciation of the help received from the Acting British Resident, the Hon'ble R. H. Crofton, whose intimate knowledge of the clove industry was freely placed at my disposal, and was of the utmost value to me during the course of my enquiries. During my visits to the different plantations I was accompanied in Zanzibar by Mr. H. Waterland, Acting Director of Agriculture, and in Pemba by Mr. J. E. Baker, Agricultural Officer; to both these officers I wish to express my thanks for the assistance they gave me. On my return to England I had an opportunity of meeting the British Resident, Mr. R. S. D. Rankine, C.M.G., then on leave, and of discussing with him some of the more important features of the clove industry.

## 2. The Clove Industry of Zanzibar.

2. *Historical.*—The clove industry of Zanzibar had its origin in the early part of the 19th century. Seed of the clove tree is said to have been first introduced in 1818 by the Arabs from Réunion, although some authorities suggest that it was introduced some years later from Mauritius. Systematic planting probably began about 1830, chiefly by direct order of the then ruler, Seyyid Said bin Sultan, and during the years following was carried out on a large scale by means of slave labour. In 1872 a severe hurricane destroyed most of the clove trees in Zanzibar, but the damage was made good by replanting under order; Pemba Island escaped serious damage. It is evident from the present condition of the clove plantations that spasmodic replanting must have been carried out to a greater or less extent in both islands during the past few decades, a question which will be referred to later.



3. *Importance of Clove Industry.*—The clove industry of Zanzibar, initiated by the Arabs and developed with the aid of slave labour, is in some respects a remarkable one. An exotic species, introduced little more than a century ago, gave rise within a comparatively short space of time to the most important industry of the country, which has maintained its position as such to the present day. A few statistics will serve to indicate its importance. The average annual export of cloves (exclusive of clove stems) from Zanzibar during the 10 years ending 1930 amounted to 9,195 tons valued at £803,000, while the average annual value of other domestic products (chiefly copra) during the same period amounted to £318,000, or only two-fifths that of cloves. Coconuts and cloves together constitute 98 per cent. of the exports of the Protectorate, but the relative importance of the latter in the world's markets is immeasurably greater than that of the former, for while Zanzibar furnishes about 83 per cent. of the world's production of cloves, she is responsible for little more than 1 per cent. of the world's output of copra. Thus, although the Protectorate exercises little or no influence on the world's copra markets, it possesses what amounts almost to a monopoly of the clove trade.

4. In the Protectorate itself the importance of the clove industry is fully appreciated by all sections of the community, and attempts to divert capital and labour into other channels have always failed. Burton, writing before the hurricane of 1872, advised replacing cloves by sugar-cane, and again in 1907 a rubber expert recommended converting the clove plantations into rubber plantations. Fortunately the faith which the Arabs had in their clove trees prevented such advice being followed, otherwise there would have been much distress in Zanzibar at the present time. An industry, albeit highly speculative, which has brought prosperity to the people, in which much of the wealth of the country is invested, and on which the Government depends for a large share of its revenue, is not to be lightly discarded; accordingly at the present day we see the best land in the Protectorate devoted to cloves, and find a universal interest in their cultivation which implies continued adherence to an established faith. To what extent this faith is likely to be justified in the future we may now endeavour to forecast.

5. *Uses and Markets.*—Cloves, the dried unopened flower-buds of the clove tree, are used as spice, as an ingredient in certain forms of cigarette, and for distillation, yielding oil of cloves; the oil is obtained also by distilling the dried clove-stalks and the leaves. No distillation is carried out in Zanzibar; clove stalks are exported for the purpose but not leaves. The chief value of the oil lies in its content of eugenol, which is converted chemically into vanillin, a substance much used for vanilla flavouring and as a basis for many perfumes. Oil of cloves is also used to some extent in medicine, as a flavouring, and as a clearing agent and preservative for microscope sections. The principal markets are India, the Dutch East Indies, the United States of America and the United Kingdom.

On a smaller scale cloves are consumed in most other countries of the world, being supplied either direct from the Protectorate or from such centres of redistribution as Bombay, Singapore, New York and London. A not inconsiderable proportion of the cloves exported to Europe and the United States of America is used for distillation, while those shipped to the Dutch East Indies are used in the manufacture of cigarettes.

6. *World Demand and Sources of Supply.*—According to recent information, the world's demand for cloves is about 12,000 tons per annum: an output higher than this would reduce prices and require fresh outlets. The chief clove-producing countries, in order of importance, are Zanzibar, Madagascar, Amboyna and other islands of the Dutch East Indies, and Penang. Of these Zanzibar is far ahead in point of quantity exported, though the out-turn from Madagascar is increasing to such an extent as to render that country a by no means insignificant contributor to the world's supplies. The out-turn from the Dutch East Indies and Penang is comparatively small, though the cloves command higher prices than those of Zanzibar and Madagascar.

7. *Production of Zanzibar.*—The average annual production (i.e. quantity reaching the Custom House) of the Zanzibar Protectorate during the 10 years ending 1929-30 was 9,568 tons, of which Zanzibar Island supplied 3,133 tons and Pemba 6,435 tons. In spite of possible competition from other sources, there has been a steady increase in the production of cloves in the Protectorate since the beginning of this century. Figures supplied to me by the Treasurer, Mr. Cox, show that in Zanzibar Island during the 25 years' period beginning 1904-05 there has been a steady increase amounting to 118 per cent. for the period, and representing an average increase of 4.7 per cent. per annum. In Pemba there was an increase from 1904-05 to 1916-17 of 31 per cent., representing an annual average of 2.6 per cent.; during the past 15 years the output has remained more or less stationary, though there is now a slight tendency to rise. The reason for the difference in the two islands is probably that in Zanzibar there was much replanting after the hurricane of 1872, and the clove-bearing trees were younger than those of Pemba. In the latter island there were many old trees with high crowns and few side branches, which could be picked with difficulty or not at all. There has, however, been a good deal of replanting in recent years, due largely to an increase in the number of small-holdings, and the out-turn from both Zanzibar and Pemba is likely to increase rather than to diminish in the near future.

8. *Possibility of an Increased Future Output.*—There can be little question that Zanzibar, by taking suitable measures, is capable of increasing her output considerably, though it would be difficult to forecast the possible extent of such an increase. This view is based on the following considerations:—

- (1) The present crop is by no means fully gathered; by improved harvesting methods an appreciable increase would be forthcoming from existing trees alone;

- (2) The land now under cloves is not fully utilized; blanks require to be filled and trees which are moribund, high-crowned or otherwise uneconomic require to be replaced by young trees, which would add considerably to the out-turn in 15 to 20 years' time;
- (3) Both in Zanzibar and in Pemba there is more land still available for clove cultivation, though the area is probably not great; the actual extent of such land cannot be determined without an agricultural survey of the country;
- (4) Census statistics show a steady increase of population, which may be expected to continue; this should have a favourable effect on the labour supply;
- (5) The extension of good motor roads during the past few years is already having a good effect in facilitating the rapid transit of clove pickers during the harvesting season and in cheapening the transport of produce; an extension of the road system through all the important clove areas will do much to improve the prospects of the industry.

9. *Competition from Other Clove-Producing Countries.*—The small out-turn of cloves from the Dutch East Indies and Penang removes these countries for the present from the field of serious competition. Madagascar, on the other hand, is a factor to be reckoned with. In that island the earliest planting dates from 1874, and the area now under cloves is stated to be 40,000 acres, as compared with 48,000 acres in Zanzibar and Pemba (the figure given in the 1929 Report on African Affairs). Madagascar possesses one advantage in having no heavy rain during the harvesting period, October-December, whereas the November rains in Zanzibar and Pemba make drying difficult. According to Mr. Kirkham (Memorandum upon the Position of the Clove Industry in Madagascar in 1928), the costs of production are less in Madagascar than in Zanzibar, but there is a tendency for them to rise in the former and fall in the latter. In the following important respects, however, the advantage lies with Zanzibar:—

- (1) Cyclones are frequent in Madagascar, and at times do great damage to the clove plantations, although by confining the plantations to sheltered situations this danger can be guarded against to some extent; Zanzibar, on the other hand, is normally off the track of tropical cyclones, and the hurricane of 1872 may be regarded as quite abnormal.
- (2) Labour for harvesting, a most important matter, is much more readily available in Zanzibar than in Madagascar, the density of population being far greater. According to an article in the *Bulletin Economique de Madagascar*, 1928, Ste. Marie, with 10,000 inhabitants, collects with difficulty 500 tons, while Soanierana with 8,000 inhabitants produces 500 tons with the help of imported labour. As a contrast, the population of Zanzibar and Pemba in 1927 was 217,000.

- (3) The clove plantations of Zanzibar and Pemba are compactly situated within a comparatively small radius, and are served by good motor roads, which facilitate not only the transport of produce but, what is of great importance, the rapid transit of clove-pickers during the harvesting season: the clove plantations of Madagascar are more widely scattered, and transport facilities must always be more difficult and costly.

10. In view of these disadvantages, the writer in the *Bulletin Economique* referred to above expressed the opinion that the out-turn of Madagascar was never likely to exceed 3,000 tons. If the labour supply is efficiently organised, however, this estimate would seem to be unduly pessimistic, considering the extent of plantations in a comparatively young stage. It is significant that the Madagascar clove crop of 1930-31 was estimated at over 3,000 tons, which is almost double the record crop of 1928-29. A review of the facts, however, leads to the conclusion that with her great natural advantages, Zanzibar is in a strong position and should be able to cope with competition from Madagascar provided she succeeds in reducing to the utmost the cost of production.

11. *Competition from Synthetic Substitutes.*—So far as competition from synthetic substitutes is concerned, the position is not so clear. This question has, I understand, been fully discussed during the last three years at conferences held at the Imperial Institute, London, between the Director of Agriculture, Zanzibar, the clove oil distillers, and the manufacturers of vanillin; other questions, including the possibility of starting the distillation of clove oil in Zanzibar, the utilization of clove leaves as a source of oil, etc., have also been considered. The results of these conferences and inquiries have been communicated to the Colonial Office and the Zanzibar Government. On my return to England, I consulted the Imperial Institute in regard to the probable effect on the future of the Zanzibar clove industry of competition from (1) guaiacol-vanillin prepared from coaltar phenol and (2) certain vegetable essential oils, namely cinnamon leaf oil, pimento berry oil and pimento leaf oil. The position in regard to these points is summarized in the following communication received from the Imperial Institute:—

“Synthetic vanillin was formerly manufactured almost exclusively from eugenol derived from clove oil and cinnamon leaf oil, and this process is still employed by makers in the United Kingdom. During recent years however, a process has been developed whereby vanillin is made from guaiacol, a substance prepared synthetically from coaltar phenol, and this method has been largely adopted in Europe and the United States. The competition of guaiacol-vanillin with eugenol-vanillin has steadily increased and at the present time guaiacol-vanillin is being sold in the United Kingdom at 1s. 6d. per lb. less than eugenol-vanillin notwithstanding the fact that the former pays an import duty of 33 per cent. *ad valorem*. Vanillin

made from eugenol is slightly superior to that at present produced from guaiacol, but it is probable that this difference will disappear in the course of time as the result of improvements effected in the production of guaiacol-vanillin.

"The continued use of eugenol for the manufacture of vanillin will depend largely on the price of eugenol-containing oils. Unless makers of vanillin can obtain cloves or clove oil (or cinnamon leaf oil) at certain prices they will be unable to produce vanillin to compete on the market with that prepared from guaiacol, and in this case they may ultimately be forced to abandon the use of eugenol for the purpose. Two years ago the price of cloves, owing to a short crop, rose to such a figure that English makers of vanillin from eugenol were unable to purchase cloves for the purpose. The general result during this period was considerably strengthened at the expense of eugenol-vanillin.

"Vanillin can also be made synthetically from safrole which is produced in large quantities at a low price from camphor wood oil obtained from Japan. Attempts have already been made in Germany to manufacture vanillin from safrole on a commercial scale. Recently Japan has been restricting the export of brown camphor oil and retaining it for the production of safrole, which it is proposed to utilise for the manufacture of synthetic products, including heliotropin and probably vanillin. It is therefore possible that vanillin made from safrole may come into the market as an additional competitor with vanillin made from eugenol. In this connection it is of interest that one of the British makers of eugenol-vanillin has recently patented a process for the production of vanillin from safrole.

"The ultimate outcome of this competition cannot be foreseen at present. The future utilisation of cloves and eugenol oils for the production of vanillin will depend upon the prices at which they can be obtained. The economic values of these oils and of cloves for the manufacture of vanillin may be further reduced by the cheapening and perfecting of the guaiacol process, and it is therefore to the interest of the producers of cloves to supply them for vanillin manufacture at as low a price as possible, for once English manufacturers abandon the use of the eugenol process they are not likely to return to it.

"It seems unlikely that clove oil will suffer as much as a source of eugenol from competition with cinnamon leaf and pimento leaf oil. Up to the present the production of these oils has probably been more beneficial than otherwise as they have assisted in supplying the demand for eugenol at an economic price, thus rendering it possible for eugenol-vanillin to compete with that made from guaiacol. The United States has hitherto been the principal market for cinnamon leaf oil owing to the fact that it is admitted duty-free whereas there is a duty on clove oil. Pimento berry oil does not appear to be employed to any extent as a source of eugenol for vanillin manufacture."

12. *Future Prospects and Policy.*—In the Report of the Commission on Agriculture, 1923, the opinion was expressed that the full extent of the world's demand for cloves had not yet been reached, and that production could be considerably increased without reducing prices below the economic level. This view now requires some modification in the light of what has been stated in the last paragraph, for although the greater part of the vanillin market has already been lost to the industry, the demand for cloves for the manufacture of vanillin is by no means a negligible factor in European and American consumption and its further curtailment might prove to be a serious embarrassment to the industry. The exact extent to which demand from the various Eastern markets is susceptible to expansion cannot be determined on the information now available. During recent years there has been a considerable increase in direct exports to the Dutch East Indies, and an increased demand from this market may have off-set the loss sustained in the vanillin trade. The figures of direct exports do not, however, provide satisfactory evidence on this point as formerly large supplies reached Java both from Bombay and Singapore.

13. A review of the whole situation indicates that future policy should aim at (1) reducing to the utmost the cost of production, (2) stabilizing the price of cloves, (3) seeking new markets and outlets for the use of cloves. The only one of these three heads that comes within the range of my inquiries is the first, namely the reduction of cost. This is a matter of vital importance, and so far as cultivation and harvesting are concerned, the proposals contained in this report will aim at reducing costs where possible: in certain respects this will involve a drastic change of ideas, particularly in regard to methods of clearing and regeneration and the organization of harvesting. No less important are such factors as debt reduction, co-operation and marketing in so far as they tend to reduce the price at which cloves can be placed economically on the market, but as this aspect of the question has already been dealt with by Mr. Strickland it does not come within the scope of this report. Time alone will show to what extent this policy, if carried out successfully, will place the Zanzibar clove industry in an unassailable position by eliminating competition. Should an increased demand at any time warrant it, the area under cloves may be extended, but for the present attention should be directed towards improving the existing clove areas rather than planting up new areas to any large extent. Finally, although I see no reason to be pessimistic regarding the future of the clove industry, I consider it advisable on general grounds to carry out further experiments in the cultivation of other crops which might, in case of necessity, replace cloves to some extent if the competition of the guaiacol-vanillin industry should prove to be too severe.

### 3. Extent and Ownership of Clove Plantations.

14. *Extent.*—The total area of Zanzibar Island is 640 square miles and that of Pemba Island is 880 square miles, giving an aggregate of 1,020 square miles. In Zanzibar the presence of large

stretches of unproductive wanda country, with shallow soil overlying limestone rock, restricts the clove-bearing areas chiefly to the western half of the island. In Pemba the unproductive limestone is confined to the eastern fringe and extreme north-west corner of the main island and to most of the outlying islands: there are also numerous low-lying swamps and other lands unsuitable for cloves, but the ultimate area suitable for clove cultivation is considerably greater than that of Zanzibar. Add to this the fact that Pemba has a high rainfall, and that its more hilly topography produces well-drained slopes on which the clove tree flourishes, and it will be realized that Pemba will always be a more important clove-producing island than Zanzibar. According to the latest estimate, Zanzibar has 16,000 acres (or 4 per cent. of the island) and Pemba 82,000 acres (or 15 per cent. of the island) under cloves. Area figures, however, are apt to be misleading, as cloves are frequently grown with coconuts, oranges or other trees or scattered amongst field crops, and the acreage may bear little relation to the number of trees on a holding. Actually the size of a clove shamba is usually expressed in number of trees rather than in superficial measure. The total number of clove trees in plantations of all categories in Zanzibar and Pemba at the present time is not accurately known, but it is believed to be about 3½ million.

15. *Ownership.*—Clove plantations are owned partly by private persons and partly by Government, the former largely preponderating as regards both area and number of trees. Private plantations may be broadly divided into two categories, (1) large properties and (2) small-holdings. Most of the former are owned by Arabs and most of the latter by natives (using the term in the wide sense to denote all non-Arab Africans), although in recent years native ownership has been extending to plantations of some size. The following figures obtained by the Clove Bonus Survey of 1922, give details of Arab and native ownership in that year:—

Classification of Plantations according to Arab and Native Ownership, as revealed by the Clove Bonus Survey, 1922.

	Arabs.	Natives.	Total.
<i>Zanzibar :</i>			
Number of owners	... 1,218	4,840	6,058
Number of plantations	... 1,869	7,070	8,939
Number of trees	... 785,554	236,758	972,312
Average number of trees per shamba	... 894	33	109
<i>Pemba :</i>			
Number of owners	... 2,973	8,717	11,690
Number of plantations	... 6,819	15,117	21,936
Number of trees	... 888,259	896,439	1,784,698
Average number of trees per shamba	... 130	59	81
<i>Zanzibar and Pemba :</i>			
Number of owners	... 4,191	13,557	17,748
Number of plantations	... 8,688	22,187	30,875
Number of trees	... 1,623,813	1,133,197	2,757,010
Average number of trees per shamba	... 187	51	89

16. *Large Properties.*—In its earlier years the clove industry was developed by means of large properties owned by Arabs. With the aid of abundant slave labour it was possible to establish and maintain plantations on a large scale at comparatively little cost.

This (for the owners) happy state of affairs continued until the abolition of slavery towards the end of last century. This event has produced conditions totally different from those under which the plantations were originally formed, and under which replanting was carried out after the hurricane of 1872. For the most part the Arabs have failed to adjust themselves to these altered conditions, which have led to a good deal of distress. In particular the chronic indebtedness of the landowners to Indian money-lenders has been a matter of concern to the Government for some time past. This question of indebtedness has been the subject of inquiry by Mr. Strickland, who has put forward proposals for dealing with it. If the larger properties are to play an appreciable part in any scheme of regeneration for the clove plantations, a satisfactory solution of this question is all-important.

17. Owing partly to the Islamic law of succession, under which landed property is divided among the heirs of a deceased person, and partly to the sale and break-up of the properties of those who have come to financial grief, the tendency has been for the larger plantations to become sub-divided, with the result that there are now over 30,000 plantations of various sizes containing anything from about a dozen to several thousand trees. This process of sub-division is continuing, so that the future is likely to see a decrease in the number and importance of large properties and a corresponding increase in the number and importance of small-holdings. So far as the maintenance of the large properties is concerned, it may be admitted that we are under a certain obligation to do all that is possible for the Arab proprietor, though this cannot be expected to imply unconditional assistance to those who make little effort to help themselves. In the course of my visits to the various plantations, I was struck with the flourishing condition of some of the Arab shambas of at least moderate size, and the genuine efforts made to replace casualties and keep the plantations in a healthy state. There was ample evidence to show that by hard work and intelligent management it is possible to achieve success with fairly large properties even under present-day conditions.

18. *Small-Holdings.*—In my opinion small-holdings are likely to play an increasingly important part in the future of the clove industry, provided, as is almost always the case, that the cultivation of cloves is combined with that of other crops, since the irregular returns received from clove plantations are not adapted to the requirements of the small cultivator in the absence of a more regular crop. In practice the cultivation of cloves is carried out in conjunction with that of coconuts, bananas, cassava, hill rice and other crops, the young clove trees being planted amongst the field crops and sometimes under coconuts or bananas. For clove cultivation the small shamba possesses certain decided advantages. The small cultivator, with his few dozen trees, is not troubled by questions of capital and interest. He and his family supply all the labour necessary, or can obtain assistance on a small scale when required. Apart



from the value of his own labour, which does not enter into his calculations, his plantation costs him nothing, and his harvest is a clear profit. He gives his trees an amount of individual attention that is impossible in a large plantation, and he sees to the re-stocking of blanks, often from a small nursery maintained under the shade of one of the larger trees. The well-tended condition of most of the small shambas is in fact a pleasing contrast to the neglected condition of some of the larger ones. In harvest time the advantage of the small shamba is particularly noticeable. The cloves do not mature all at once like a field of wheat, but have to be picked here and there in small quantities as they reach the picking stage. While the large proprietor is troubled with the organisation of labour and frequently has to leave much of his crop unpicked, the small-holder can visit his shamba each day throughout the season, picking his daily quota with the aid of his family, and leaving little or nothing unpicked. It is fortunate, therefore, that the number of small-holdings acquired by natives and small Arabs is steadily increasing, for it is impossible to avoid the conviction that in these small-holdings lies the future of the clove industry of Zanzibar.

19. *Government Plantations.*—In Zanzibar and Pemba there are about 80 Government plantations aggregating rather more than 17,000 acres, of which some 8,000 acres are fully planted with cloves and coconuts. The number of bearing clove trees in Government plantations is estimated at about five per cent. of the total number in the two islands, while during the seven years ending 1925-26 the crop obtained from Government plantations constituted only two per cent. of the total crop of the Protectorate: figures are not available after 1925-26, since many of the plantations were leased and not operated direct. It is thus apparent that from the economic point of view the Government plantations play a very small part in the clove industry. About two-thirds of the plantations are in Zanzibar, and are under a special Manager of Plantations. In Pemba the plantations are under the direct supervision of the Agricultural Officer at Wete. Figures are published in the Annual Reports of the Agricultural Department showing the revenue and expenditure each year since 1910: these show the annual average for the ten years 1920 to 1929 to be—Revenue Rs. 4,07,193; Expenditure Rs. 2,77,411; Surplus Rs. 1,29,782. These figures give no indication of the profitability or otherwise of the plantations, taking into account the value of the land, the capital invested, and the interest on the capital up to the productive stage. Proposals have been made from time to time for the disposal of all Government plantations not required for experimental and demonstration purposes. The latest Government policy, as I understand it, is to keep accurate costings of the various plantations and ultimately to dispose of those which do not pay and retain those which do, always provided that areas required for experimental and demonstration purposes will be permanently retained as such. In carrying out this policy, care will be necessary to debit each plantation with its full share of overhead charges, in

which case it is not unlikely that small scattered plantations may prove to be unremunerative when the costs of supervision (including salaries and travelling expenses of supervisory officers) are taken into consideration. In the special circumstances of the Zanzibar clove industry there are advantages in Government undertaking the management of a certain proportion of the plantations, provided that no undue competition with private enterprise is involved. This will be apparent if steps are taken to stabilize prices, when the Government plantations will act as a restraining influence, while as demonstration areas in which to apply the results of experimental work on a practical scale they will serve a most useful purpose. There is even something to be said for increasing the area of Government plantations, always provided that these are confined to blocks of economic size and that small scattered areas are avoided.

#### 4. Present Condition of Clove Plantations.

20. *General.*—The chief requisites of a good clove plantation may be said to be (1) suitable soil and situation, (2) correct spacing, to ensure full utilization of the ground, (3) freedom from pests and diseases, (4) good form and productivity of trees, and (5) proper distribution of age-classes. There are few, if any, plantations in the Protectorate that may be regarded as perfect in all these respects. In some there appear to be unfavourable soil factors at work; many are either overcrowded or insufficiently stocked; few are free from symptoms indicating the presence of pests or diseases; there are some in which the trees, owing to overcrowding, have developed high crowns which are difficult to reach; and there are very few in which the age-classes are distributed in such a way as to ensure sustained yields in the future. So far as the general health of the plantations is concerned, the condition of many of them is far from satisfactory. Deaths are frequent, the trees sometimes perishing over several acres at a time, although sporadic deaths are the more common. Still more common is the dying off of branches to a greater or less extent, a condition which strikes the eye at every turn. This total or partial dying may be due to various causes. Although as yet we have no definite proof of the fact, it is probable that the unhealthy state of many of the plantations may be attributable in some measure to unfavourable soil conditions brought about by clearing the original forest and exposing the soil, a question which is dealt with in paragraphs 23 and 24. There are also other causes of mortality, which will be discussed in Section 6; some of these, however, may be only secondary causes following on unfavourable soil conditions. Although the condition of the clove plantations leaves much to be desired, it does not appear to be as hopeless as some writers have indicated. It should be possible to devise measures for restoring the fertility of the soil and dealing with pests and diseases, though this will have to be preceded by research and experimental work, the nature of which will be indicated later. The scheme of regeneration proposed in this report will take the condition of the plantations into consideration,

and will provide for the removal of unhealthy trees producing little in the way of out-turn, and their replacement by young trees. The state of the plantations may now be considered in relation to the various factors mentioned at the beginning of this paragraph.

21. *Soil and Situation.*—Clove plantations grow satisfactorily up to the highest elevations in Zanzibar and Pemba islands, namely 440 and 311 feet respectively. Aspect does not appear to have any marked influence on their condition, though instances were noticed of mortality on hot westerly slopes, which may be attributable to drought. Good drainage is essential to vigorous growth, for which reason we find some of the most flourishing plantations on the sides of hills in Pemba Island, which is more intersected by ravines than Zanzibar. The opinion is sometimes expressed that all land suitable for cloves has been planted up: this is not the case, particularly in Pemba, though the actual area still available cannot be determined without a detailed soil survey. On the other hand there are certain areas under cloves which could be devoted more suitably to other crops owing to the unhealthy state of the trees. The typical soils suitable for clove plantations are well-drained sandy loams and red loams with good moisture-retaining capacity. The stiffer red loams, which harden in dry weather, are less favourable than the more porous loams. In certain cases, again, the surface soil on hill slopes and spurs has evidently become impoverished through erosion and the exposure of the subsoil; this is most marked where the gaps between the trees are wide. Badly drained or waterlogged ground, with stiff clay soil, is entirely unsuitable for clove cultivation. The subsoil water-level in the clove areas is usually at a considerable depth. Stockley (*Report on the Geology of the Zanzibar Protectorate, 1928*) states that in Zanzibar Island data collected from some 450 wells gave water-level depths varying from 35 to over 100 feet, the deeper levels being on the ridges. In Pemba data from 250 wells showed that the depths at which water is met with seldom exceed 50 feet. In waterlogged depressions unsuitable for cloves the water-level may be only a few feet in depth at most. These facts serve to emphasize the sensitiveness of the clove tree to the presence of ground water in excess.

22. Analyses carried out in 1921 by the Imperial Institute showed that differences in soil conditions were not sufficient to cause the death of some trees while others remained healthy; treatment with lime was recommended in order to neutralize the acidity of the soil, followed some weeks later by a good phosphatic manure. These and previous analyses in 1916 and 1917 of various soils in Pemba showed that "the soils in both devastated and healthy areas were acid and lacked phosphate". During my visit 40 soil samples were taken at different depths in 16 sites, of which four (with 10 samples) were in Zanzibar and 12 (with 30 samples) in Pemba. The chief object was to ascertain if there was any definite soil factor to account for the partial or total dying of the trees in certain situations: for this purpose soil samples were in some instances taken from areas

in which the trees were affected as well as from closely adjoining areas in which they were healthy and vigorous. The soil samples were analysed in the Department of Rural Economy, Oxford, under the supervision of Mr. G. R. Clarke, and the chief results obtained are as follows:—

(1) There are signs of degradation in the surface layers, as indicated by bleached grains together with a much smaller percentage of soluble material than at some little depth.

(2) All the soils are on the acid side, the surface layers being less acid than the lower horizons; the acidity generally increases with depth. The tolerance of the clove tree for acidity is thus obvious, and it is therefore by no means certain that liming would prove beneficial.

(3) There is no evidence from the samples to correlate variations in soluble constituents with differences in the health and vigour of the tree. Some of the best growth is found on soil relatively poor in soluble constituents. Theoretically it would follow from the degradation of the surface soils that there would be a loss from this horizon of soluble plant food, i.e. nitrates, phosphates and potash. Acidity might to some extent inhibit nitrification, and potash would tend to be leached more rapidly than phosphates.

(4) In general the Pemba soils have a greater water-holding capacity than the Zanzibar soils. The soils of Zanzibar are more degraded, and contain less soluble constituents, than the Pemba soils. There is no evidence from the samples to correlate the death of trees with differences in the water-holding capacity of the soil.

23. From these results it is not safe to conclude that soil conditions are the deciding factor in causing the death of trees on typical clove-bearing land (as apart from swampy and other ground unsuitable for cloves). It must, however, be noted that such a brief and hurried examination of soil conditions as it has been possible to carry out cannot be expected to furnish conclusions of general application. Before such can be obtained, a detailed study of the soils in conjunction with other factors (diseases, insect pests, and climatological conditions) would be necessary, and this should be carried out by the silviculturist whose appointment will be recommended later. It should be remembered that the clove tree is being grown under conditions which are artificial and probably very different from those to which it was originally accustomed in its natural state. In its natural home the climate is moist, warm and equable, and the original vegetation consists of tropical rain forest, a type comprising a mixture of many different species, chiefly evergreen. Judging from the small remnants of original forest or regrowth in the clove areas of Zanzibar and Pemba, the original vegetation here must have consisted of a similar type of forest, and this is the more apparent from the fact that the climate is so well suited to the clove tree. In Zanzibar and Pemba, wherever the clove is left to itself it exhibits all the characteristics of a rain forest species, establishing itself

naturally in moist soil under heavy shade and holding its own in the struggle for existence owing to its capacity for pushing its way through dense undergrowth.

24. Recent research carried out in the rain forests of Trinidad by Mr. R. C. Marshall in collaboration with Professor Hardy has shown (1) that the surface layers of the soil, owing to the accumulation of organic matter from fallen leaves, are relatively the richest in easily available nutrients, accompanied by a high rate of solution which may extend down to as much as six feet, (2) that when rain forest is cleared there is a rapid and very marked falling off in the nutrient value of the soil, which quickly reflects itself in the condition of young trees grown on cleared ground, (3) that deterioration can be prevented by maintaining a very dense cover permanently on the ground. In the case of a shallow-rooted species like the clove tree the maintenance of fertility in the top 18 inches of soil is a matter of great importance, and lack of attention to this point may be partly accountable for the poor condition of many of the plantations. The experimental work in Trinidad should give an indication of the lines on which experiments in the restoration of soil fertility in the clove plantations should be carried out. It is found in Trinidad that when rain forest is destroyed, a regrowth of a different type succeeds it; if this regrowth is destroyed grass follows, a most unfavourable condition so far as plantations are concerned. There are thus two stages of retrogression, first from rain forest to regrowth, second from regrowth to grass. The same retrogression is observable in Zanzibar. The question next arises as to how soil fertility can be restored in plantations of rain forest species on land which has been denuded of its original vegetation and on which the soil has deteriorated. In Trinidad clean weeding, besides being prohibitive in cost, was found to stimulate a growth of grass. Artificial cover crops of a temporary kind, including leguminous crops, were found to be beneficial as long as they covered the ground, but after they were reaped the soil was left in an exposed condition and deterioration set in. The retention of second-growth, kept trimmed down, furnished a more permanent soil-covering, but as the second-growth species are light-demanding they do not hold out sufficient promise of permanency after the plantation closes up. The procedure which promises to give the most successful results is to imitate Nature as closely as possible by building up an under-story composed of the shade-bearing evergreen species of the original rain forest. Although this procedure may be well adapted to plantations of forest trees, it would require some modification if applied to clove plantations, in which a heavy under-story would hamper picking. Experiments should, however, be made to find some form of permanent vegetation which will maintain the fertility of the soil and at the same time will not interfere with picking. The clove trees themselves should go a long way towards maintaining the fertility of the soil if they are in sufficiently close formation, but as the form of the trees suffers with too close a canopy, efforts should be made to find some permanent

form of undergrowth to supplement the cover of the clove trees. Experiments in this direction are proposed in paragraph 69.

25. *Spacing.*—Close spacing has the advantage of utilizing the ground more fully, killing out weeds more rapidly, and maintaining the fertility of the soil more effectively than wide spacing. On the other hand, if the spacing is too close the trees become drawn up, lose their lateral foliage, and produce high crowns from which it is difficult to gather the cloves; close spacing also intensifies root competition, which may enfeeble the trees. In silvicultural operations, the practice is to plant closely with the object of killing out weeds and producing long clean stems: in order to prevent overcrowding, superfluous trees are cut out from time to time in thinnings, and early returns are thus secured. This would not be applicable to clove plantations, since the object is to produce abundant lateral foliage and not long stems with high crowns. At the same time the present system of planting is not likely to produce the highest possible yield per acre throughout the life of a plantation; a considerably higher yield should be obtainable by planting more closely than is at present customary, and subsequently carrying out periodical thinnings before the side branches begin to meet. It has been suggested that this would be unworkable in practice, as no plantation owner would cut out a tree in bearing. It would therefore be necessary to ascertain first by experiment whether this system gives definitely higher yields than the existing system, and if proof is forthcoming it should serve to break down the prejudice against felling living trees. It has already been proved by experiment that when overcrowded clove trees are thinned out, provided they are not too old, the survivors respond in a remarkable way by developing new side branches and lateral foliage.

26. The spacing most commonly adopted hitherto is 21 feet by 21 feet, giving 103 trees to the acre. This is unnecessarily wide in the earlier stages unless catch crops are to be cultivated, and too close after the age of say 30 years. Experiments might take the form of planting 15 feet by 15 feet, giving 194 trees to the acre. In time the side branches will begin to meet, when thinnings will be commenced in order to remove superfluous trees, and the survivors will be spaced 30 feet by 30 feet, giving 48 trees to the acre. If we assume that up to the age when thinnings are carried out (say about 30 years) the trees will give an average out-turn of 2 lbs. per annum for 15 years valued at 9d. per lb., we obtain the following yields:—

Spacing.	Trees per acre.	Out-turn in lbs. per acre.		Money yield per acre.	
		Per annum.	For whole period.	Per annum.	For whole period.
(1) 21 × 21 ft.	103	206	3090	£ 7-14-0	£116
(2) 15 × 15 ft.	194	388	5820	£14-11-0	£218

After the 30th year the plantation spaced 21 feet by 21 feet would for some time give a higher yield than the one originally spaced 15 feet by 15 feet but now opened out to 30 feet by 30 feet, but the latter would soon respond to the opening and give increasing yields while the former would become overcrowded and give diminishing yields per tree if not per acre. The figures given above, it may be noted, are imaginary, but they will serve to exemplify the principle. Experiments might extend to testing different degrees of spacing: in general a wider spacing is desirable on good soils than on poor soils, as the trees attain a larger size on the former. In practice the thinnings would not be carried out until actually required, and would be spread over a period of several years, so that there should be no sudden drop in out-turn. In order to save the expense of felling, it would be sufficient to kill the trees selected for thinning by ring-barking them: in many cases they would be saleable for fuel or for poles.

27. *Form and Productivity of Trees.*—The form of a clove tree, as affecting its yield capacity, is a matter of great importance. The ideal is a rounded bushy crown of no great height with abundant foliage descending almost to the ground: a tree of this form has a large leaf-surface and picking is facilitated. Trees grown in an overcrowded state tend to produce long ascending branches more or less devoid of foliage except at the extremities; the crown thus becomes elevated, the leaf-surface is small, and picking is rendered difficult owing to the inaccessibility of the crown. Some of the older plantations, especially in Pemba, consist of tall trees in this congested state, and in the scheme of regeneration these should be replaced by young stock at the earliest opportunity. Even in the younger plantations trees of poor form are frequent, with many dead branches, narrow or one-sided crowns, and a scanty leaf-surface: in cases where recovery is unlikely, the replacement of such trees would be well justified. No observations appear to have been made as to the relative productivity of individual trees, a matter of some importance in connexion with the selection of seed. Experimental work on the form and productivity of trees will be proposed later.

28. *Distribution of Age-Classes.*—If a clove estate or unit of management is to produce sustained yields in the future, it should contain a sufficient proportion of trees of all ages. Theoretically, if we assume that a clove-tree at 60 years of age begins to decline in vigour and productivity and ought to be removed and replaced, and that we are dealing with an estate of 60 acres, then an ideal condition will have been reached if one acre each is occupied by plantations aged respectively 1, 2, 3.....58, 59, 60 years, or alternatively 10 acres each are occupied respectively by plantations aged 1-10, 11-20, 21-30, 31-40, 41-50 and 51-60 years. Each year one acre aged 60 years, or alternatively during a period of 10 years 10 acres aged (at the beginning of the period) 51-60 years, would be cleared and replanted. If this process is continued regularly year after year or period after period, without accident, the yield of cloves

would be maintained at a more or less constant figure for an indefinite length of time. This illustrates what is known as a correct distribution of age-classes: it would also be attained if trees of the different age-classes were mixed together in correct proportion over the whole area instead of each age-class being relegated to a separate area. In forest terminology, a forest in this ideal state is known as a "normal forest", a condition representing an ideal to be aimed at but almost impossible to attain. In the case of clove estates the attainment and maintenance of this "normal" condition would ensure sustained yields in the future, and if it extended to the whole Protectorate it would give a confidence in the future of the clove industry which could not be secured in any other way. In practice, however, it would be impossible to secure mathematical regularity in the distribution of age-classes, if only because clove trees do not all become overmature at a definite age; some may produce abundantly long after the age of 60 years, and it would be a mistake to remove them, while others may die off or become diseased and moribund long before that age, and should be removed and replaced. Consideration such as this will always upset any attempt at absolute regularity in the distribution of age-classes; hence we must look on the "normal" condition only as an ideal set up for guidance, and the nearer actual conditions conform to this ideal the better the outlook.

29. We may now consider how far the actual distribution of age-classes in the Protectorate conforms to the "normal" state. Here we are confronted with the difficulty that little is known as to the actual age of the various plantations except those formed within the last few years. We are able to recognize young plantations up to say 10 or 12 years, and possibly to guess at those from 10 to 25 years old, but beyond this, in the absence of reliable records, it would be unsafe to hazard a guess which would be in the least safe. During the last ten years the statement has been repeatedly made in official documents that for practical purposes there are only two age-classes, one of 80-90 years in Pemba and one of 50-60 years in Zanzibar: both would now be say 5 to 10 years older. This, I am convinced, is not the case. In Pemba there are many plantations which appear to be of middle age, certainly younger than 60 years. In that island, as Mr. Crofton has pointed out, since the production was frasilas 80,000 in 1872-8 and frasilas 413,000, or over five times the amount, in 1895-6, there must have been extensive planting after the hurricane. This fact is established by a despatch from Sir Arthur Hardinge to the Marquess of Salisbury dated the 4th May, 1896: "For many years after 1872, the year of the great hurricane which destroyed so many of the trees in Zanzibar, this island practically produced no cloves: as a consequence, the Pemba people began everywhere to plant clove trees (attracted by the high prices offered owing to the inadequate supply from Zanzibar), and have during the last ten years literally converted their island into a clove forest".

30. My own observations convince me that in privately owned shambas, and particularly in the smaller estates and small-holdings



of Pemba, there has been a good deal of planting during the past ten years. The bonus may have stimulated this to some extent, but it was in operation only from 1923 to 1927, and much of the planting was done before and after this period. So far as Government plantations are concerned, in the Annual Report of the Agricultural Department for 1929 it was stated that according to a recent estimate of young and of bearing trees the stock under 10 years of age was 21 per cent. of the total. So far as the Protectorate as a whole is concerned the true state of affairs cannot be revealed without an enumeration of trees, which will be proposed in connexion with a scheme of regeneration (Section 7). Meanwhile, as far as can be judged from a casual inspection, the distribution of age-classes appears to be far from normal, there being a preponderance of the older and a deficiency of the middle-aged and younger classes.

### 5. Characters and Requirements of the Clove Tree.

31. *Shape and Development.*—The clove tree, *Eugenia caryophyllata* Thunb\* (family Myrtaceæ) is a moderate-sized evergreen tree, in Zanzibar reaching a height of 30 to 40 feet, but in Pemba under favourable conditions attaining a height of 50 and exceptionally 60 feet. The stem usually forks at no great distance from the ground, the main branches being erect, the larger subsidiary branches ascending, and the smaller branches and twigs usually sub-erect or pendulous. In healthy trees with sufficient growing space the crown is more or less conical or elongated during the early years, afterwards becoming rounded, with dense foliage reaching almost to the ground: trees grown in a crowded state tend to produce long erect branches with little or no foliage except at the extremities, forming an elevated crown. The root-system is for the most part superficial. The seedling produces a taproot of some length, which in certain cases persists: Miss Welsford measured taproots up to 22 feet in length, but although I examined the root-systems of ten trees between the ages of 8 and 30 years, I was unable to find more than the decayed remnants of taproots, the longest measuring three feet. The main lateral roots are thick, and branch into a large number of smaller subsidiary roots and fine rootlets, the whole forming a rather superficial network spreading to a radius up to 15-25 feet or more and descending to a depth of about 12 to 15 inches. Sometimes there are a few vertical roots sent down from the lateral root-system, but these are not always present, and the main root-system may be said to be superficial.

32. *Climate.*—The climate requirements of the clove tree restrict its cultivation to comparatively few localities throughout the world,

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\*This is the generally accepted name of the clove tree. There are two synonyms, *Caryophyllus aromaticus* L. and *Jambosa Caryophyllus* (Spreng.) Ndz. The Germans keep up the latter name, but at present Kew is not recognizing *Jambosa* as a genus distinct from *Eugenia*.

and these always at no great distance from the sea. The following meteorological statistics apply to Zanzibar and Pemba:—

Normal rainfall (inches)	Zanzibar.		Pemba.	
	45 (E) to 59 (W)	Zanzibar Town.	61 (N) to 82 (W)	Pemba (Banani).
Temperature (degrees F.) mean	...	80.5	...	81.3
Mean of daily maxima	...	84.5	...	86.6
Mean of daily minima	...	76.5	...	76.0
Absolute maximum	...	94.9 (March)	...	95.0
Absolute minimum	...	68.0 (August)	...	67.0
Mean relative humidity	...	75.0 (4 years only)	...	

The S.W. monsoon begins in March, and the principal rainy season lasts from the latter part of March to the end of May, when about half the year's rain falls. The lesser rains occur from October to December, when about one quarter of the year's rain falls; the N.E. monsoon begins at the close of these rains. The remaining quarter of the rainfall is fairly evenly distributed throughout the rest of the year. The rainiest months are usually April in Zanzibar and April and May in Pemba. The driest months are normally January and September in Zanzibar and February and September in Pemba. It would appear from these statistics that the chief climatic requirements of the clove tree are a moist warm equable climate with a fairly well distributed rainfall. The fact that on the whole it grows more vigorously in Pemba than in Zanzibar may be due partly to the higher rainfall, but it is probably due also to conditions of topography and soil.

33. *Soil.*—The soil requirements of the clove tree have already been dealt with in paragraph 21.

34. *Light and Moisture Requirements.*—The clove tree is decidedly tolerant of shade, particularly in youth. This is shown from the fact that seedlings frequently spring up in large numbers under the heavy shade of the parent trees and may persist for years, though their subsequent development depends on the admission of light. Young trees have a remarkable capacity for pushing their way upwards through comparatively dense bush. The clove tree, like most species adapted to a well-distributed rainfall, requires a fair amount of moisture in the soil, and is susceptible to drought, its shallow root-system being ill adapted to withstand abnormal periods of dry weather when the surface soil dries up.

35. *Flowering.*—Since cloves are dried flower-buds picked shortly before opening, the question of flowering is of the utmost importance in relation to the clove harvest. The flower-buds are borne in small bunches at the ends of the twigs. They usually begin to appear about January or February, and to become ready for picking in July when they turn from green to red. In a good year picking continues for six or seven months, with a partial cessation in October and November, a new crop of buds beginning to appear about August and becoming ready for picking towards the end of the season. The young shoots and leaves, on first appearing, are pinkish and tender, afterwards becoming green and stiffer in texture. More information is

required as to the time which elapses between (1) the first appearance of the young pink shoots, (2) the subsequent first appearance of the young flower-buds, and (3) the harvesting of these buds. It is recommended that this information be obtained in different localities and for several successive years, by tying small numbered labels on to the young shoots on their first appearance at different dates and afterwards carefully noting in respect of each label (1) the date of first appearance of the young flower-buds and (2) the date when these buds become ready for picking. This information should be of assistance in forecasting the clove harvest, particularly if it can be correlated with climatic conditions.

36. Young trees usually begin to produce small crops at the age of seven or eight years, but crops of any appreciable size are not obtained for several years longer. Production of flower-buds has been known to occur at the age of three years, but such early flowering is not necessarily an advantage, as it may weaken the tree and may even indicate an unhealthy condition. The uncertain periodicity of flowering, with the resulting extreme variation in the size of the crop, makes the clove industry a highly speculative one. An indication of the flowering periods is given by the quantities of cloves delivered each season at the Custom House. A graph kindly supplied to me by Mr. G. D. Kirsopp, Comptroller of Customs, shows that in general, though not always, the variation in the size of the crop in Zanzibar each season coincides more or less with that in Pemba. The graph further shows the following results for a period of 21 seasons, 1910-11 to 1930-31:—

(Figures in '000 frasilas.)

In Zanzibar crops of 200 and over were obtained in 9 seasons.					
"	"	"	"	100-200	" " " 4 "
"	"	"	"	under 100	" " " 8 "
"	Pemba	"	"	500 and over	" " " 9 "
"	"	"	"	300-500	" " " 4 "
"	"	"	"	under 300	" " " 8 "

37. In general terms, therefore, it may be said that a good crop occurs on an average once every  $2\frac{1}{2}$  years, a poor crop once every  $2\frac{3}{4}$  years, and a medium crop once every  $5\frac{1}{4}$  years. This estimate, however, cannot be regarded as anything but roughly approximate, since the size of the crop must depend to some extent on the completeness of picking and the number, age and condition of the bearing trees, which may have varied considerably during a period of 21 years. So far no correlation has been obtained between the size of the crop and meteorological conditions, and without more exact data it is doubtful if a true correlation could be obtained, even presuming that meteorological conditions enter into the case. In order to obtain such data I would propose that a number of trees of different ages (so far as it is possible to determine age) should be selected in different experimental areas and on different types of soil. These trees should be carefully picked clean every season, and a record kept of the crop obtained each month from each tree, with the total for the season. If these records are maintained for a number of years they may give useful results regarding the effect of

age, soil, and possibly climatic conditions, on the periodicity of flowering and the size of the crop: they should also furnish useful yield tables.

38. *Yield.*—A large number of measurements in Government plantations, recorded in the Annual Reports of the Agricultural Department for 1928 and 1929, show that green cloves lose on an average 67 per cent. of their weight in drying, or in other words, a dry clove weighs one-third of a green one. The yield per tree varies so much with the season, the size, form and other inherent characteristics of the tree, and possibly other factors, that a general average is difficult to arrive at. The Report of the Commission on Agriculture, 1928, takes 4 1/5 lbs. of dry cloves per tree as a general average. Another estimate, based on deliveries at the Customs, is 6 lbs. per tree in Zanzibar and 7 lbs. in Pemba. Still another gives 6 lbs. per tree in Pemba and rather less in Zanzibar. The out-turn from Government plantations showed an average of 2.69 lbs. of dry cloves per tree in 1926-7, for a fair average but by no means large crop, and only 0.88 lbs. per tree in 1928-9, from the poorest crop recorded during the past 10 years. In good years yields of 40 lbs. or more from individual trees are probably not uncommon, and Lyne (*Zanzibar in Contemporary Times, 1905*) mentions a single tree yielding 6 *frasilas* (210 lbs.) of dried cloves. The experiment proposed in the preceding paragraph should in time furnish accurate yield statistics for trees of different ages, but these figures will represent the total quantities which the trees are capable of yielding, and not the out-turn under actual working conditions, when a portion of the crop usually remains unpicked.

39. *Vegetative Reproduction.*—As a means of propagating high-yielding strains or special forms, vegetative reproduction has not so far held out much promise. Layering has not been tried in Zanzibar, though Ridley says the clove tree can be propagated by layers. Budding or grafting have been tried without success: in an experiment in approach grafting, out of twelve trials only one graft remained alive for more than a season. Pollarding has not given satisfactory results in the case of large branches, but experiments in topping at an early age, with the view of improving the form of the tree, will be proposed later. The clove tree is said not to coppice; if this is so it differs radically from many other *Myrtaceæ*, which coppice with great freedom. Observations may have extended only to moribund trees incapable of producing coppice shoots, and it is possible that if vigorous and fairly young trees are selected they may be found to coppice successfully. It is suggested that experiments be carried out in ordinary and aerial layering, as well as in the coppicing of young trees with the view of producing a bushy form.

## 6. Injuries and Causes of Mortality.

40. *General.*—No visitor to the clove plantations of Zanzibar and Pemba can fail to be struck with the amount of mortality present; most commonly the twigs and branches die back, but frequently the

trees die off completely, either sporadically or in patches of greater or less extent. So prevalent is this mortality that it will influence to a large extent any scheme for the regeneration and management of the plantations. In the short time at my disposal it was impossible to make an exhaustive inquiry into the causes of mortality, which is a necessary preliminary to the adoption of preventive or remedial measures. It is apparent, however, from a brief inspection, that the death of the trees or their branches may be attributable to various causes, the more important of which may be noted.

41. *Drought*.—The shallow root-system of the clove tree renders it particularly susceptible to drought, which is a possible cause of complete or partial dying on soils which are not sufficiently retentive of moisture. In the absence of other symptoms this cause of damage may usually be recognized by the fact that the fibrous roots are intact (showing an absence of insect attack) and that there is no sign of fungus on the roots or at the base of the stem: for this purpose an examination of the roots should be made as soon as death occurs. Hoeing on steep slopes may result in the washing away of the surface soil and the exposure of the roots; where this is to be feared hoeing should be dispensed with. Experiments in the use of cover crops for the maintenance of soil fertility and the prevention of damage by drought will be proposed later. Recently planted young trees often die of drought; this may be due to exposure of the roots at the time of planting, to planting in dry instead of moist weather, to careless planting, to unfavourable weather conditions after planting, or to unfavourable soil. Some of these causes are avoidable. As a preventive measure watering, as practised in the days of slavery, is no longer practicable on a large scale, and less expensive methods of planting and tending will be proposed later.

42. *Unfavourable Soil Conditions*.—The question of soil conditions in the clove plantations has already been discussed in paragraphs 21-24, in which it has been pointed out that the unhealthy state of the clove plantations may be attributable in part to soil deterioration consequent on the removal of the original forest and the cultivation of the clove tree in a manner unnatural to it. Experimental work with the view of providing a remedy is proposed in paragraph 69. Unfavourable soil conditions are often a predisposing cause of mortality from other agencies, since trees which are lacking in vigour are particularly liable to succumb from secondary influences such as drought and fungus attacks.

43. *Fungi*.—The question of fungus diseases was investigated some years ago by Miss E. J. Welsford, who was attached to the Agricultural Department as Mycologist. According to her there are two diseases, (1) a root-rot disease which she provisionally named *Peziza caryophyllata*, which causes "sudden death"; it lives saprophytically on decaying twigs and roots but under certain conditions becomes a parasite, attacking living roots and spreading from tree to

tree by root contact or by spores, (2) a wind-borne leaf fungus which she provisionally named *Diplodia eugenioides*, which causes the "die-back" of twigs; it enters leaves whose surface is roughened by the presence of the alga *Cephaleurus mycoidea*. The treatment recommended by Miss Welsford in the case of the root-rot disease is to cut down and remove the affected trees as soon as wilting is noticed, burn the main roots and stump, isolate the stump and the trees immediately surrounding it by a trench 2½ feet deep, and give the ground a dressing of 1 lb. of lime to the square yard. In the case of the die-back disease the treatment recommended is to spray with Bordeaux mixture, prune the affected branches and cultivate the ground.

44. Experimental plots to test the efficacy of measures for dealing with the root-rot fungus were laid out at Makondeni in 1922 by Miss Welsford, who reported in January, 1927, that these showed that infected ground can be safely replanted if it is well cleaned, the infected roots being either removed or thoroughly burnt: she added that seedlings planted in previously infected ground benefit greatly by a dressing of lime or basic slag. I visited the experimental area in question in August, 1931; generally speaking, there was no apparent difference in the condition of the trees throughout the area, most of which were unhealthy owing to the presence of a rank growth of grass. I also visited an experimental plot in which trees attacked by root-rot had been surrounded by an isolation trench. This had proved ineffective, as there were several affected trees immediately outside the trench.

45. In the course of my visit I endeavoured to form some opinion as to the importance of these two diseases. During the short time at my disposal anything in the nature of a detailed investigation was out of the question, and I cannot therefore do more than summarize such further evidence regarding the two diseases as I was able to obtain, and to suggest lines of action regarding them. It is proposed to deal first with the root-rot disease and secondly with the leaf-spot ("die-back") disease. In the case of the former, there was usually no difficulty in finding the felty mycelium on the roots or the base of the stem of affected trees, but I was unable to find any fructifications. The question of identification remains to be settled. Inquiry at the Imperial Mycological Institute, to which specimens had been sent by Miss Welsford, revealed the fact that owing to the very friable nature of the fructification embodied in hard plant tissues, it was impossible to make out its essential structure, and even to guess at its family. An attempt at the Imperial Forestry Institute, Oxford, to obtain a culture of the fungus from material collected by me failed owing to the fact that the fungal material was too contaminated by other organisms and too moribund to grow with sufficient vigour. The mycelium was noticeable on old wounds on the upper sides of lateral roots, caused by hoeing some years previously: this suggests hoeing as one means by which the

fungus may gain admission. The following remarks on this fungus are based on the very scanty evidence so far available:—

(1) The attacks of fungi of this kind are often of a secondary nature, following on the weakening of the tree through some predisposing cause; such as unfavourable soil conditions, drought, insect attacks and other agencies: how far the fungus in question is encouraged by such agencies or by mechanical injury through hoeing, it is impossible to say on the evidence available.

(2) The burning of the stump and main roots is generally effective in a disease of this type, not because it rids the soil of the fungus, but because it prevents its excessive development: it is, however, expensive, and until the necessity for it has been proved—which is not the case so far—its employment on a large scale cannot be recommended.

(3) Without knowledge of the life-history of the fungus the digging of isolation trenches is merely a shot in the dark, and in the experiment alluded to above it has not proved effective: the practice of digging them was at one time much in vogue in Europe, but experience has shown that where infection is carried also by means of spores, isolation trenches will not prevent the spread of disease, and the practice of digging them has been largely abandoned.

46. So far as further mycological research is concerned, the silviculturist whose appointment will be proposed later should be capable of carrying out such investigations as are called for at present. The action I would recommend is to have the fungus identified and to study its life-history and habits, particularly in regard to its mode of gaining admission, its method and rate of spread, and the extent to which it is favoured by predisposing causes, including mechanical injury by hoeing and damage to the roots by the clove chafer (see paragraphs 49-51). This will involve experimental work and the establishment of observation plots, but it need not involve any great outlay of expenditure. When definite information is available as to the habits of the fungus, it may be possible to devise control measures. Generally speaking, anything that will maintain the fertility of the soil and keep the trees in vigorous condition should be of assistance in combating the disease.

47. Dealing now with the leaf-spot disease, this disease has hitherto been regarded as the cause of the dying back of twigs and branches which is so common a feature of many of the clove plantations. An examination of affected trees left me unconvinced as to the correctness of this. In the dead twigs and branches fungus mycelia are undoubtedly to be found; in a climate like that of Zanzibar it would be almost impossible not to find them on dead wood, but such fungi would be more likely to be harmless saprophytes than harmful parasites. Hence, while not prepared to minimize the importance of the leaf-spot disease as a leaf disease pure and simple, I felt that the wholesale dying back of twigs and branches was more likely to be attributable to some agency affecting the roots and causing interference with nutrition. An examination of the roots of

several affected trees was accordingly made, with the result that, in these particular cases at all events, the die-back was found to be due to the attacks of a chafer beetle, particulars regarding which are given in paragraphs 49 and 50. It remains to be seen how far this beetle is responsible for the dying back on a large scale. If, as seems possible, it is the principal cause of it, the leaf-spot disease may prove to be of minor importance, and the problem of control will become an entomological and not a mycological one. Until this question is settled, the expenditure of money on control measures against the leaf-spot disease is not justified. Further study of the disease, however, is desirable, more particularly since Ridley (*Spices*, p. 169) regards it as a troublesome and destructive pest. It is important to know how far it is actually responsible for the dying back of branches or for defoliation, and under what conditions it is most prevalent. The Director of the Imperial Mycological Institute in reply to an enquiry as to the correct identity of the leaf fungus, states that it is very probably *Sphaerella* (*Mycosphaerella*) *vexans* Masee, though in the absence of spores the material supplied by Miss Welsford did not permit of a certain identification being made. Mr. W. R. Day, Mycologist at the Imperial Forestry Institute, Oxford, made a microscopic examination of material collected by me. This revealed the presence of the alga referred to by Miss Welsford, but there was no sign of any fungal attack. This does not by any means imply that her statement that there is also a fungus secondary to the alga infection is incorrect; it indicates, however, that the characteristic spots on the leaves are caused by the alga, and that the fungus is not always present. Ridley attributes the disease to the alga, and makes no mention of the fungus.

48. *Other Plant Parasites*.—In some localities much damage is done by species of *Loranthus*, of the mistletoe family, the seed of which is spread by birds, and *Cassytha filiformis* L., a yellow wiry leafless plant of the laurel family. These parasites attack the branches of clove and other trees and weaken or kill them: *Loranthus* is also particularly common on orange and lime trees. These parasites are a source of considerable danger in a plantation and they should be removed wherever found, not only to save the trees attacked but also to prevent the spread of the parasites. Their compulsory removal is provided for by the Plantations Preservation Decree, No. 18 of 1922, but their prevalence indicates that the enforcement of this very necessary provision requires to be made more effective.

49. *Insects*.—The only insect pests hitherto reported are termites, which occasionally damage the roots of clove seedlings in the nursery and may cause the death of the plants. The adoption of natural or temporary nurseries, as suggested in paragraph 66, should be the means of avoiding any appreciable loss on this account. It is therefore disquieting to have to record the discovery of a much more serious pest, which is certainly one cause, and may prove to be the chief cause of the dying back of branches hitherto attributed to the leaf-spot diseases, as well as of the ultimate death of many trees.



In the course of digging up the roots of a young clove tree in an advanced stage of 'die-back' in the Mlangos plantation, the characteristic curved larvæ of a melolonthid (chafer) beetle were found in large numbers, and a further search revealed the presence of a few pupæ and adult beetles. The larvæ had evidently been at work for some time, since all the smaller roots had been eaten away, and the cortex of the larger roots was honeycombed by their attacks. The dying condition of the young tree was undoubtedly due to this insect and to no other cause. After this discovery the root-systems of six other trees in the same locality were examined. The trees varied in age from about 8 to at least 30 years, and their condition, as regards the extent of dying back, also varied. Larvæ of the beetle were found attacking the roots of every tree, and the extent of dying back depended more or less on the number of larvæ present and the extent of the damage to the roots. Pupæ and adults were found in the case of some but not all of the trees, and the depth at which the insect, in one stage or another, was found varied from 8 to 15 inches from the surface, that is, wherever there had been lateral roots on which to feed. Specimens of all three stages were collected and sent for identification to Mr. G. Arroy of the British Museum (Natural History) who has pronounced the beetle to be a hitherto undescribed species of the scarabæid genus *Idæcamenta*. This genus is little known, only one species (and only the male of the species) having been described so far. He proposes to describe the beetle under the name *I. eugenia*: it may be designated the clove chafer in popular language.

50. It is impossible at present to estimate the full significance of this beetle as a serious pest. This can be done only after ascertaining its distribution and prevalence by an examination of the roots of affected trees over a wide range throughout Zanzibar and Pemba Islands. If this insect is in fact the chief cause of 'die-back', which seems possible, then it is responsible for serious annual loss, and after its life-history has been worked out, measures should be devised for its control. For this purpose its similarity, not only in morphology but also in habits, to the common cockchafer of Europe (*Melolontha vulgaris* Fabr.) and to other members of the Melolonthidæ, should be of assistance. So far as evidence is available at present, the clove chafer must almost certainly be indigenous, since it can hardly have been introduced with clove seedlings and certainly not with seed. It must therefore have one or more natural food plants on the island. With the clearing of the natural vegetation for the formation of clove plantations, these natural food plants were probably destroyed to a large extent, and in consequence the beetle has learnt to feed on the roots of the introduced clove tree; in this it has been encouraged by artificial conditions of cultivation, whereby pure plantations have been formed on a large scale. The beetle probably swarms in large numbers, since conditions for multiplication are so favourable, and the chances are that it is widespread. This is indicated from the fact that the typical dying back of trees is visible everywhere, and that a large number of larvæ were collected

from the roots of only seven trees within a narrow radius: these were the only trees examined, since the discovery of the beetle was not made until shortly before my departure from Zanzibar. The life-history of melolonthid beetles in general suggests the sequence of stages in the case of the clove chafer. The beetles emerge from the ground at a definite time of the year (about May in the case of the European cockchafer). After fertilization the female lays her eggs in small heaps below the surface of the ground. The larvæ hatch out, disperse, and feed on the roots of plants, it may be for some years (three years is the usual period for the cockchafer in England), during which time they increase in size. Pupation then takes place, and the pupæ of the clove chafer follow the usual rule of enclosing themselves in a ball of earth. A few weeks later the adult beetles emerge and may remain in the ground some time (over the winter in the case of the cockchafer), after which they come up from below and take flight, thus completing the life-cycle. The adult beetles feed on the leaves of plants, but the serious damage is done during the larval stage, when plants are killed through the destruction of their roots. In the case of the clove chafer a short life-cycle, possibly not exceeding two years, is suggested from the fact that larvæ, pupæ and adults were found in the ground together, and that the climate is warm and equable without any winter season to retard the course of development.

51. It would be premature to suggest control measures for dealing with the clove chafer until something is known as to its prevalence, life history, and habits. The chief points on which further information is required at present are as follows:—

(1) What is its prevalence? This question can be answered only by means of an examination of the roots of affected trees over as wide an area as possible, and this survey should be undertaken before anything else is done.\*

(2) Does the intensity of the attack vary with (a) the age of the tree, (b) the nature of the soil, (c) the presence or absence of ground vegetation, (d) any other factors? This enquiry can be conducted along with the survey under (1). The seven trees examined varied from 8 to 30 years of age, and were on red loam: one tree (badly attacked) stood on bare ground devoid of vegetation, while the others (attacked in varying degrees) were on ground covered with dense herbaceous weed-growth 2 feet high, with signs of former hoeing, though none had been carried out during the past two years.

(3) What is the life-history of the beetle? This will require detailed study on the spot.

(4) What are the natural food plants of the larvæ and adults?

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\*Since the above was written, an examination by Mr. R. Johns, Agricultural Officer, of 315 trees affected by dieback in Zanzibar and 72 in Pemba, has revealed the fact that the chafer is found distributed throughout the clove areas of both islands, but is more prevalent in Zanzibar than in Pemba.

## 7. Schemes of Regeneration.

52. *General.*—The question of regeneration is one of the most important problems with which the clove industry is at present confronted. The subject can best be considered under two separate heads (1) Schemes of regeneration and (2) Methods of regeneration. The former indicate in outline the general arrangement of fellings and replacements with the object of securing a correct distribution of age-classes and ensuring sustained yields for the future; the latter indicate in more detail the technique under which regeneration may best be obtained. The unsatisfactory state of many of the clove plantations has naturally forced itself on the attention of agricultural officers and others, who have emphasized the necessity for formulating and carrying into effect a scheme of regeneration. Of the need for this there can be no question, but at the same time we must avoid the fallacy of imagining that a large and costly scheme of felling and replacement will secure the desired result. In a properly managed estate, regeneration should be constantly in progress to the extent necessary to maintain a correct distribution of age-classes. The main object is to produce on a given area the maximum quantity of cloves per acre per annum for all time; this object will not be secured by panic measures designed to clear and replant large areas regardless either of cost or of established procedure. Once an estate has been planted up and is in full bearing, regeneration should be regarded as a normal operation to be carried out year after year, and to be paid for out of current revenue and not regarded as an item of capital expenditure. Although the majority of the existing clove plantations were established with the aid of slave labour, there is no reason for supposing that they cannot be regenerated for lack of such cheap labour. The methods employed in the days of slavery would, it is true, be too costly for general use at the present day, but it should be possible to devise other methods which will secure regeneration successfully and cheaply.

53. *Proposals of the Agricultural Department.*—For many years the official regeneration policy of the Agricultural Department has been one of extensive clear-cutting followed by replanting. The scheme originally put forward involved the clearing and replanting of 8,000 acres in each of six 10-year periods for 60 years (the estimated life of a clove tree), or an average of 800 acres a year. It is significant that although this scheme was proposed more than ten years ago, no attempt has been made to carry it out in practice, the cost alone being a sufficient deterrent. Whatever may be the merits of clear-cutting and replanting as a method of regeneration, a large and comprehensive scheme employing such a method would in my opinion break down for the following reasons:—

(1) Clove trees of all ages (not merely old trees) are constantly dying off individually or in groups, and such casualties, as well as moribund and otherwise unproductive trees, should be replaced wherever they occur: such scattered replacements would be

numerous enough to upset any regular scheme of regeneration involving clear-cutting on a large scale. ••

(2) A scheme of clear cutting would involve the felling of numerous trees in full vigour; not only would this be strongly resented by plantation owners and mortgagees alike, but it would be indefensible on economic grounds.

(3) A scheme of clear-cutting takes no account of the existence of small-holdings as a factor of constantly increasing importance: it would involve the clearing and replanting of entire shambas and the removal for several years of the whole source of income from cloves on the small-holdings affected; this could be accomplished only by drastic and unjustifiable compulsion or else by the payment of heavy compensation.

(4) Under existing labour conditions clear-cutting and replanting on a large scale is likely to prove the most costly method of regenerating the clove plantations; with slave labour it was possible to water them in the early stages, but the cost of this would now be prohibitive on large clearings.

(5) Many shamba owners, particularly small-holders, are fully alive to the necessity for replacing casualties, and are keeping up the stock of young trees in the manner best adapted to their needs; although in some respects their methods are capable of improvement, this can best be effected by advice and demonstration, not by forcing on them a system unsuited to their requirements.

54. *Basis of Present Proposals.*—A rational scheme of regeneration should in my opinion be based on the following considerations:—

(1) It should involve the least possible expenditure compatible with successful results;

(2) It should be simple and easily understood;

(3) As far as possible it should be acceptable to shamba owners and should cause the least amount of dislocation of existing practice;

(4) It should aim at producing permanently the maximum sustained yield of cloves per acre per annum;

(5) It should take into account the physiological characteristics and cultural requirements of the clove tree.

55. *Proposed Scheme for the Regeneration of Private Plantations.*—The question of Government plantations will be considered later. Applying the considerations detailed in the previous paragraph to the regeneration of private plantations, the most convenient and effective method of ensuring regular future supplies will be to provide for the continual removal of dead and dying trees and other trees which no longer furnish good yields, and their replacement by young ones. No tree, whatever its age, should be removed if it bears plentiful crops, and no tree should be retained if it has ceased to do so. The actual method of regeneration, which will be discussed later, will vary according to circumstances, though for the most part it will involve not clear-cutting and replanting but the filling of gaps

created artificially or by natural causes. It would obviously be unsafe to adopt a scheme on these lines without some form of check. In the present state of our knowledge of the rate of growth and average age of maturity of clove trees any check based on a correct distribution of age-classes would be out of the question, and in any case there appears to be no definite age at which a tree ceases to bear. As a rough approximation, and for purposes of calculation only, we may assume that up to 12 years of age a tree is unproductive, and that at an average age of 60 years it ceases to bear good crops and has to be removed. On this assumption it follows that if the number of young unproductive trees is always maintained at one-fifth of the total, the future out-turn of cloves will, apart from unforeseen accidents, be secured. But it is possible that owing to the prevalence of unhealthy trees the number of removals and replacements during the first 12 years may be more than one-fifth of the total number of trees. This will be an advantage rather than otherwise, as the future out-turn will thus be the better provided for. If the ratio of young trees to the total sinks below one-fifth, then there would be reasonable cause for apprehension, and hence this ratio should be looked on as a minimum, except where the proportion of vigorous healthy trees is unusually high.

56. The proposed scheme of regeneration thus involves (1) the retention of all trees which are bearing good crops and the removal and replacement of all those which are not doing so, (2) the maintenance of a ratio of normally not less than one-fifth of the total number of clove trees in the young unproductive stage. It remains to suggest a method of providing for the maintenance of this ratio. It is obvious that although large estates worked as self-contained units might reasonably be expected to maintain the minimum ratio, this would be out of the question in the case of each individual small-holding. It would serve ultimate requirements if the minimum ratio were maintained over the whole Protectorate as a unit, irrespective of the ratio in each estate, but for purposes of supervision it will be necessary to subdivide the Protectorate into several units of management, each containing a number of shambas and in each of which the minimum ratio should be maintained. These units may be designated "working circles". The first step necessary is to carry out an enumeration of clove trees in each working circle, shamba by shamba, distinguishing between (1) young trees up to about 12 years old; (2) healthy trees in regular bearing, (3) trees which should be removed and replaced, (that is, dead, dying, over-mature, diseased or other trees whose removal is desirable). Such an enumeration will reveal the actual state of affairs in each working circle and the extent to which regeneration is required. It may even be found necessary to raise the minimum ratio temporarily where there is a great excess of undesirable trees or to lower it where they are few in number. This enumeration should not involve any extra staff, and can be organized by and carried out under the supervision of the local Agricultural Officers. At intervals of say 10 years the various working circles should be re-enumerated in order that the progress of

regeneration may be followed; at each re-enumeration the question of revising the minimum ratio should be considered, since it may be necessary to raise or lower it in certain working circles. In course of time it may be possible to fix the ratio in each working circle on an actuarial basis; in the meantime the one-fifth ratio will serve as a guide. The working of this scheme would be facilitated by a cadastral survey.

57. I am aware that there are some who hold the view that clear-cutting and replanting is the only satisfactory method of regenerating the clove plantations, and that young trees planted in gaps do not develop satisfactorily. My own observations do not confirm this view. It is true that young clove trees do not develop well in gaps which are too narrow, but where sufficient space is allowed their development is all that can be desired. On the other hand plantations formed on cleared areas often suffer greatly from drought in the earlier years, and the cost of replacing casualties may be very high. Further details will be given in Section 8.

58. *Summary of Proposals for Private Plantations.*—The following is a summary of the proposals for effecting and controlling the regeneration of private plantations:—

(1) No trees should be felled, whatever their age, so long as they are healthy and producing good crops, but all trees which for any reason have ceased to produce good crops should be felled and replaced by young ones.

(2) The method of regeneration will depend on the requirements of each case: in most cases it will consist of filling gaps rather than of clear-cutting and replanting on a large scale.

(3) For purposes of control, working circles should be formed, and an enumeration of clove trees should be carried out in each, in order to ascertain the relative proportion of (a) young trees below 12 years of age, (b) healthy productive trees, (c) trees requiring removal.

(4) Unless the percentage of class (b) is unusually high, steps should be taken to maintain the number of class (a) at not less than one-fifth of the total: periodical re-enumerations, say every 10 years, should be carried out to determine to what extent this minimum ratio is being maintained, or whether it is necessary to alter it in certain cases.

59. *Enforcement of Regeneration Scheme.*—The success of any scheme of regeneration must depend on its being carried out effectively. It may be held that if a person does not wish to grow cloves he should not be compelled to do so. This is true, but if he does grow cloves there is something to be said for requiring him to grow them on approved lines in order to ensure the maintenance of future supplies. In certain European countries, including Norway, Sweden, Austria and Czechoslovakia, there are laws requiring private owners of forests to manage them and regenerate them on approved

lines; the welfare of these countries demands this, and the laws are accepted as reasonable and natural. Clove plantations resemble forests rather than agricultural crops in that provision has to be made for the future, many years hence. With the precedent of the European forest laws, therefore, there is nothing specially drastic in framing a decree requiring the clove plantations to be managed and regenerated systematically. I do not anticipate that such a decree would require to be enforced very often if clove growers can be shown that regeneration need not necessarily involve heavy expenditure. Where there is any failure on the part of owners to regenerate their plantations, this may generally be attributed not to the lack of desire to do so but rather to financial difficulties and the fear of incurring heavy expenditure on work which will bring no return for several years. To take an example, one of the chief deterrents to systematic regeneration is the high cost of felling, grubbing up and removing the old trees. The fact does not seem to have been appreciated that this work is not as a rule necessary, and that trees may be killed by ring-barking (girdling) at a very small cost and left standing without doing any harm, possibly to be removed afterwards and sold as fuel. Only in the case of trees killed by the root-rot fungus is it advisable, apart from any question of regeneration, to grub up and burn the stump and main roots. Other methods of reducing the cost of regeneration will be considered in Section 8.

60. *Assistance to Clove Growers.*—Direct Government assistance to clove growers has hitherto taken the form of (1) a bonus for seedlings planted, and (2) the free issue of seedlings. The seedling bonus scheme was started in 1922, but proved unsatisfactory; no doubt it resulted in an increase in the number of young trees planted, but apart from its demoralizing effect it monopolised the time and energies of the Agricultural Officers to an extent which was quite unwarranted, and in 1928 it was decided to abandon it. Nurseries for the free issue of seedlings were started in 1922. In January, 1931, there were four public nurseries in Zanzibar, with 26,000 seedlings, and nine in Pemba, with 27,000 seedlings. In 1930 Rs. 6,200 was requisitioned and in 1931 Rs. 4,200 was allocated to maintain public clove nurseries in both islands. Issues during 1930 amounted to 10,700 seedlings, and 30,000 will be available, if required, for planting in 1932. In most countries the free issue of tree seedlings has had to be abandoned because it is found that plants obtained free are not valued, and sufficient care is not taken in planting them; hence the usual custom is to make a small charge for any plants issued. The clove nurseries of Zanzibar are maintained at considerable cost, and there is a certain amount of wastage due to the attacks of termites. Although I do not recommend the immediate abandonment of free issues, I consider it advisable to follow up the free issues in test cases, in order to ascertain to what extent the plants are actually made use of. The raising of clove seedlings is by no means difficult, and in many plantations local seedlings are employed; this being so, it may be assumed that it is the lazier and less provident clove growers who make demands on the Government nurseries.

It would be a different matter if plants of specially good strains were issued; this is not the case. The question of reducing the cost of raising seedlings will be considered below. In my opinion it would do more good to demonstrate to clove growers how they can raise their own plants cheaply than to encourage them to rely on Government to furnish them with plants which they should be quite capable of producing themselves.

61. In general, I am against adopting measures of direct Government assistance which will benefit the less provident and are not required by the more provident clove growers. A clove plantation should be capable of being maintained on a profit-earning basis, and the clove grower should not require Government assistance in restocking blanks in his plantations any more than a shopkeeper requires it for replenishing his stock. On the other hand there are various directions in which Government can and should provide assistance of a more indirect kind. Mr. Strickland has dealt in his report with some of the fundamental economic problems involved. Further experimental work should result in devising measures for reducing the cost of regenerating and working the clove plantations, a question which will be considered below. Another direction in which very real assistance can be given to the clove industry is in continuing the policy of road construction. The extension of good motor roads during the past few years has already borne fruit in the shape of reduced transport charges, which must react favourably on the clove industry and encourage plantation owners to plant with the view of profit. By pursuing the policy of road extension still further, the stimulus should be even greater. Pemba in particular, considering that it produces more than two-thirds of the Protectorate's out-turn of cloves, deserves consideration in this respect.

62. *Regeneration of Government Plantations.*—Apart from areas set aside for experimental purposes only, the Government plantations should be placed under schemes of regeneration on lines similar to those proposed for private plantations. In order that the work may be systematized and controlled, working plans should be prepared and revised at intervals of say 10 years. Preliminary work in connexion with the preparation of working plans is already making good progress. A survey of Government plantations is proceeding, chiefly on a scale of 400=1 inch; at the same time the plantations are being divided into blocks for management purposes, and clove and coconut areas are shown by distinctive signs. In the working of the Government plantations the opportunity should be taken to test different methods of regeneration.

63. *Abandonment of Unsuitable Areas.*—In connexion with schemes of regeneration, the opportunity should be taken to abandon areas which experience has shown to be unsuitable for clove cultivation, and to utilize them, if suitable, for the cultivation of coconuts or other crops.



### 8. Methods of Regeneration.

64. *Characteristics of the Seedling.*—Successful methods of regeneration must be based on the characteristics and requirements of the seedling. Under natural conditions clove seedlings spring up in great abundance under the heavy shade of the mother trees and are able to persist under shade for some time. They have a remarkable capacity for pushing their way through heavy bush, and may be found in a vigorous and healthy condition in moist soil under the dense shade of *matunguru* (*Aframomum angustifolium*). These facts indicate that the clove seedling can tolerate a considerable amount of shade and requires moisture. Its shade tolerance appears to be connected with a demand for moisture, which it obtains in shaded soil, rather than with a demand for shade as such, since seedlings will grow exposed to full light provided they receive sufficient moisture in the soil. On the other hand they are very sensitive to drought, which is one of the commonest causes of mortality. The seedling produces a tap-root, and during transplanting great care is necessary not to expose the root-system and allow it to dry. The pests and diseases of the seedling require further study; so far, termites have been the chief danger in the nursery.

65. *Natural Regeneration.*—Where conditions are favourable, it would be possible to develop a system of natural regeneration based on the capacity of the seedling for springing up under dense cover. This would obviate the cost of planting, though it would involve a small amount of expenditure in freeing the young plants from overhead cover. In some shambas in Pemba, instances were seen of successful results obtained by freeing young natural clove trees from the overhead cover of trees and shrubs under which they had sprung up. Natural regeneration could be utilized as a possible means of regenerating old clove plantations whose crowns, owing to overcrowding, are too elevated for remunerative picking. The procedure would be to open the canopy gradually as the natural seedlings establish themselves and require more light, and at the same time to thin out the seedlings where they are congested, utilizing surplus plants for filling gaps. The overhead cover would in time be completely removed, and the young crop would take the place of the old one. The removal of the overhead cover need not involve the felling of the trees; it would be sufficient to girdle them and allow them to die. In certain cases similar measures could be taken where, as sometimes occurs, plentiful natural regeneration follows the death of old trees and establishes itself below a regrowth of native bush. The Silviculturist whose appointment will be recommended should develop experimentally a method of systematizing natural regeneration, and should assist clove growers to regenerate their plantations in this way where favourable opportunities occur. This method of regeneration, however, is likely to be the exception rather than the rule, as it may prove somewhat too intricate for general use.

66. *Nursery Practice.*—Turning now to artificial regeneration, the first subject to consider is nursery practice. The usual procedure

in force in Government nurseries is to dig up self-sown seedlings from the plantations and line them out in well-prepared nursery beds, which are kept weeded, hand-watered and artificially shaded until the plants are large enough to plant out. Great care is necessary not to expose the roots of the seedlings during transport to the plantation and at the time of planting. This method is expensive, and it possesses the disadvantage that the seedlings become accustomed to regular watering and are therefore the more sensitive to drought when transferred to plantations where watering is not carried out.

I do not recommend the abandonment of this system until some cheaper but equally effective method has proved successful, but I would recommend experiments on the following lines:—

(1) *Natural Nurseries*.—Patches of natural seedlings, frequently found under old trees, should be selected; the seedlings should be thinned out to promote vigour, and finally planted out, when large enough, straight into the plantations, all weakly plants being discarded. This method is already in force in some shambas, but the mistake is made of not thinning out the patches of seedlings and securing vigorous plants.

(2) *Temporary Nurseries*.—Where natural seedlings are not available, patches of ground should be hoed up under the shade of old trees, and seed sown broadcast in them and lightly covered, the resulting seedlings being thinned out as before and finally planted out.

(3) *Root and Shoot Cuttings*.—Some trees can be propagated with success by means of root and shoot cuttings. Seedlings about two to three feet in height are selected, the stem is cut off near ground-level, and the taproot is shortened to about 9 inches. The "stumped" plant, as it is sometimes called, is then planted out. Where successful, this method results in a strong regrowth. Some species can be transplanted more successfully by this method than by any other, but others fail completely. It is not known whether clove seedlings will respond to this treatment or not, but it is worth trying; it is cheaper than the usual method of planting with entire roots, since a smaller planting hole suffices.

67. *Clearing and Planting*.—When clove plantations were originally formed in Zanzibar and Pemba the work in many cases must have involved the clearing and burning of natural bush and the employment of nursery-raised seedlings. Cover crops (cassava, etc.) are said to have been used in some cases, or the plants were shaded artificially with small shades of palm-leaf or grass supported on sticks; watering was also carried out. The Arabs must have discovered at an early stage that the clove seedlings could not survive without abundant moisture, and that shading assisted their survival. Under present-day labour conditions this method of forming plantations would be costly, though in the days of slave labour the question of cost scarcely arose. I visited an area of approximately 140 acres

recently cleared and planted on the Dole estate. Detailed figures of the actual cost were not then available, but the estimate per acre, excluding the cost of seedlings from Government nurseries, worked out as follows:—

	Rs.
Carting, holing and planting	... 5
Watering	... 63
Shading	... 4
Cultivation and supervision	... 7
<b>Total</b>	<b>Rs. 78</b>

The extent to which watering adds to the cost of a plantation will be appreciated from this estimate. The number of seedlings estimated for was 100 per acre, giving a spacing of about 21 feet by 21 feet. The estimated cost of establishing 100 plants was therefore Rs. 78 or, if we add Rs. 15 for the cost of the plants, Rs. 92. An inspection of the young plantation showed that there had been much mortality through drought, and that further heavy expenditure on replacements would be necessary before the plantation could be said to be successfully established. Mr. Kirkham, in a memorandum dated 15th May, 1930, on the Regeneration of the Clove Industry, furnishes the following approximate figures showing the cost per 100 plants of clearing and planting, based on experiments in Government plantations:—

	Cost per 100 plants. Rs.
Felling	... 21
Lopping and removing	... 63
Stumping	... 63 to 125
Lining	... 4 to 5
Holing	... 2.50
Planting	... 2.50
Shading	... 2.25
Nursery (1 year)	... 15.00
Packing seedlings	... 2.25
Carriage of seedlings	... 1.87 to 3.12
<b>Total replanting Rs. 177.37 to Rs. 242.62.</b>	
Add maintenance for 10 years (six ring weedings and four slashings per annum at Rs. 20.76)=	<b>Rs. 207.60</b>
<b>Total cost to bearing Rs. 384.97 to Rs. 450.22</b>	

The high cost of stumping will be noticed, an operation which is by no means essential and is seldom carried out in the case of forest plantations.

68. As a matter of interest, these figures may be compared with those showing the average cost of clearing forest and establishing plantations in (1) the South Malabar district of South India (teak spaced 6 feet by 6 feet), (2) the Tharrawaddy district of Burma (teak spaced 6 feet by 6 feet), (3) Kenya Colony (cedar, eucalyptus, etc.), spacing various, chiefly 6 feet by 6 feet to 8 feet by 8 feet). The comparative figures are as follows, assuming a spacing for Zan-

zibar of 21 feet by 21 feet, and converting East African currency into Rupees:—

<i>Zanzibar :</i>	Cost per acre.	Cost per 100 plants.
Clearing and planting	Rs. 177 to 243	Rs. 177 to 243
Total to end of tenth year	Rs. 385 to 450	Rs. 385 to 450
<i>South Malabar :</i>		
Total to end of fifth year	Rs. 40	Rs. 3- 4-10
<i>Burma :</i>		
Clearing and planting	Rs. 17-12-0	Rs. 1- 7- 5
Total to end of third year	Rs. 24- 4-0	Rs. 2- 0- 0
<i>Kenya :</i>		
(Spacing 6 feet by 6 feet to 8 feet by 8 feet)		
Clearing and planting with aid of squatters	Rs. 13- 5-4	Rs. 1- 1-7 to Rs. 1-15- 5
Total up to time of thinning, with aid of squatters, say 10th year	Rs. 46-10-8	Rs. 3-18-8 to Rs. 6-13-10
Total up to time of thinning, without aid of squatters	Rs. 92- 5-4	Rs. 7-10-1 to Rs. 13- 9- 2

The Burma plantations, and those of Kenya formed with the aid of squatters, make use of the practice of shifting cultivation, which reduces the cost considerably. The methods employed in South Malabar and in Kenya without the aid of squatters involve clearing in the usual way without the aid of shifting cultivation, and are therefore comparable to those of Zanzibar. Yet we find that with these similar methods the cost per acre of clearing and establishing plantations in Zanzibar is roughly from four to over ten times what it is in Malabar and Kenya, even with only 100 as compared with 680 to 1,210 plants per acre. If the unit taken for comparison is 100 plants, the difference is very much greater. The Kenya figures, it may be mentioned, include supervision and overhead charges, which the Zanzibar figures apparently do not. The cost of labour of the kind required may be taken at Rs. 18 a month in Zanzibar as compared with Rs. 8 in Kenya, Rs. 15 in Malabar and Rs. 30 in Burma. It is difficult, therefore, to explain the high cost of forming plantations in Zanzibar otherwise than by assuming that the methods employed are unnecessarily expensive. For one thing, it is not found necessary to extract stumps in Burma, Malabar or Kenya, even when field crops are cultivated on the clearings. In the case of the teak plantations of Burma and Malabar, at all events, very complete clearing and burning of the *débris* is essential to success since young teak is extremely intolerant of suppression: the same would not apply to clove plants, and this fact should operate in reducing costs in the case of clove plantations.

69. In some of the small-holdings of Pemba successful plantations are being created at small cost by planting young clove trees in small gaps cleared in low bush and undergrowth, which is left untouched except where it threatens to suppress the clove trees, and affords a good natural shelter. This method should go a long way towards preventing the soil deterioration on cleared areas which has already been referred to. It also shows that cheap and at the same time successful methods of forming clove plantations can be devised. Much, however, remains to be done in the way of carrying

out systematic experiments to find methods of reducing the cost of establishing new plantations on land previously occupied by bush or by old plantations. The following experiments are proposed, and others will no doubt suggest themselves:—

(1) Open the canopy, as far as is necessary, by girdling a certain proportion of the older trees, and underplant with young clove trees; the remaining overwood to be retained as long as the young trees require shade and then removed gradually by girdling. Undergrowth to be retained except immediately round the young clove trees. Trees which will not die by girdling can generally be killed by scraping off the outer bark and smearing the exposed living cortex with "Atlas preservative", an arsenical compound which, it should be noted, is very poisonous.

(2) Clear-fell the bush or old plantation, leaving the stumps in the ground and cutting the larger logs into sections; when the felled material is sufficiently dry, burn it thoroughly and plant the young clove trees amongst field crops, which should be cultivated for a few years to utilize as well as aerate the ground. The area should be watched for a few years to see if the burning produces an undesirable growth of coarse grass.

(3) Where no natural cover is available, small-scale experiments should be carried out in planting cloves under shade trees, preferably of fast-growing leguminous species, introduced in advance. Among species suggested are *Glyricidia maculata*, *Cassia siamea*, *Samanea saman* (rain tree), *Pterocarpus indicus*, *Albizia moluccana*, *A. lucida* and *A. stipulata*; seed of the first four is available in Zanzibar and seed of the last two is obtainable from Burma. *Pterocarpus indicus* can be grown from large cuttings. In addition casuarina might be tried on the more sandy soils.

(4) Experiments should be carried out with the object of finding some permanent form of bushy undergrowth which will maintain the fertility of the soil. Native species should be sought for in the remnants of natural forest still existing. A plant which appears to be worth a trial in this respect is the so-called wild cardamon or *matunguru* (*Aframomum angustifolium*). This plant, which belongs to the ginger family, forms a dense undergrowth about six feet high, which can be kept lower if necessary by cutting. It is common in many of the clove plantations, particularly in Pemba, and generally indicates a soil very suitable for clove cultivation. Bananas should also be tried with different spacings in mixture with cloves. As a means of killing out coarse grass, *Leucaena glauca*, a shrub or small tree of tropical America, is usually very effective; it coppices well, yields abundant fuel, and might be tried for filling gaps in clove plantations.

(5) Experiments should be made in the direct sowing of clove fruits say two feet apart in hoed lines 15 feet apart; if successful this method may prove cheaper than transplanting seedlings.

(6) Periodical soil analyses should be carried out to test the effect on the soil of the treatment under (1), (2), (3) and (4).

70. *Interplanting.*—By interplanting is meant the planting of young trees in gaps or lines between older trees. Where gaps are created from time to time by the removal of dead trees or of living trees whose removal is desirable, these gaps should be filled up as soon as possible with young trees. Interplanting may also be carried out in regular lines in plantations requiring regeneration *en bloc*. Where there is sufficient space between the lines of old trees, this may be done without removing any of them, on the understanding that they should be removed, or killed by girdling, when they begin to interfere with the young trees. But where there is insufficient space between the lines of old trees, every alternate line should be felled or girdled, and sufficient space created for interplanting. Experiments in this direction were carried out about 12 years ago in the Government plantation at Machui. In this experiment alternate lines of healthy trees were felled, but in practice such fellings should be confined to trees requiring removal for some good reason. There is one direction in which interplanting might be used as a regular method of regeneration. Certain plantations on second-class soils, particularly in Zanzibar Island, contain trees which are never likely to reach any great size, but which may be expected to produce fair crops of cloves for several years, though their condition is likely to necessitate their removal before very long: between each line of trees there is sometimes a clear strip wide enough to contain a line of young trees which will be in no danger of suppression for many years. The planting up of such clear strips would enable regeneration to be effected without any temporary loss of out-turn, since the old trees would not ordinarily have to be removed until the young ones were well on their way to full bearing.

### 9. Tending Operations.

71. *Cultivation, Weeding and Manuring.*—In the case of most crops the value of cultivation has been amply proved. In the clove plantations the practice varies. Many of them are regularly hoed and the soil is kept well aerated; others receive little attention and are covered with weeds. In the Government plantations the practice of slashing the weed-growth has generally superseded hoeing, except in young plantations, though disc harrowing with the help of a motor tractor is being tried experimentally in Selem. An examination of the roots of certain trees disclosed frequent wounds on the upper side of the larger lateral roots; in consequence the roots had become badly decayed and in certain cases showed the presence of the root-rot fungus, which evidently gained admission through the wounds. The value of cultivation lies in its effect on the smaller feeding roots at some little distance from the tree rather than on the main roots near to it. It would seem advisable, therefore, except in the case of young trees, to avoid cultivating too near the trees, and to use a fork rather than a hoe, in order to reduce the damage.

72. The whole question of soil cultivation requires to be investigated experimentally, for although opinions are not wanting as

to its utility, there is no reliable evidence available as to its effect in promoting vigour and stimulating production in the case of plantations of different ages. Experiments in cultivation have, it is true, been made, but these have not been carried out under proper methods of control which will allow of a correct interpretation of results. The object of such experiments should be to determine the effect of cultivation on the vigour and the productivity of trees of different ages. This can best be done by means of a number of replicated plots, some left untreated, some cultivated in different ways, some slashed. Experiments in this direction should be combined with those proposed in paragraph 69. Experiments in the use of artificial manures, the results of which are summarized in Section V (B) of the Annual Report of the Agricultural Department for 1929, have given somewhat inconclusive results. In the case of clove plantations it is doubtful if artificial manuring on a large scale would justify its cost by increased out-turns, and I do not advise the continuance of these experiments unless the experiments in the more natural methods of maintaining soil fertility, proposed in paragraph 69, should prove a failure.

73. *Pruning, Pollarding, and Training.*—Pruning is not a regular operation in the clove plantations of Zanzibar, though dead branches are sometimes pruned off to prevent the admission of rot. This is a useful operation if it can be carried out at a reasonable cost. Experiments in pollarding or topping middle-aged trees with the view of stimulating new branch formation at a more accessible height have not given encouraging results. There is one direction in which useful experimental work might be carried out, namely in training trees with the view of inducing the formation of low broad bushy crowns which can be easily reached for picking. If such training is possible at all, it could probably be done best while the tree is quite young, the top being pruned back, perhaps more than once, so that the training will have been completed before the tree reaches the bearing stage, and no loss of crop will be entailed, as would be the case if pruning were continued after the tree comes into regular bearing.

#### 10. Selective Breeding.

74. Since the clove tree has little power of vegetative reproduction, the propagation by this means of high-yielding and early-yielding strains or trees of good form does not appear to hold out much promise. As a means to this end, however, experiments in selective breeding might be tried. It will take many years to produce results of any kind, but this form of experiment should cost little, and may eventually furnish results of importance. So far as early-yielding strains are concerned, it does not necessarily follow that these will prove desirable, since early flowering and fruiting may sometimes be a sign of impaired vitality; so far as the clove tree is concerned, this point can be settled only by experiment and observation.

## 11. Harvesting.

75. *Labour.*—Questions connected with harvesting have a very important bearing on the out-turn of cloves and the costs of production. Under present conditions an appreciable proportion of the clove crop remains unpicked, even in the most accessible places. This suggests a deficiency of labour, or a defective organization of the labour supply, or a need for improvement in the methods of picking. The labour supply in an abundant harvest year is said to be quite inadequate. The organization of the available supply, however, is capable of improvement. Government, it is true, provides special facilities for transporting clove pickers from Zanzibar to Pemba in large numbers, and the construction of good motor roads in both islands has facilitated the rapid transport of pickers to the various plantations. Nevertheless considerable difficulties are experienced in the handling of the labour. Arab plantation owners informed me that under average conditions the cost of picking absorbs half the value of the crop, and that when the price of cloves is low there is no profit left after the wages of the pickers and the Government duty have been paid. The clove pickers themselves frequently give trouble by absconding after receiving advances. At the same time enquiries show that much of the trouble is due to the action of the Arab plantation owners themselves, through their lack of understanding of the ratio that should exist between the price of cloves and the cost of picking them, and owing to the fact that they will not co-operate. After meeting in the presence of a Government official and agreeing among themselves to a reasonable scale of payment, they proceed to outbid each other in order to draw labour from other plantations to their own. As one employer raises the price another does the same and outbids him, with the result that often more is given for picking than the cloves are worth, while the clove picker spends his time in moving from one plantation to another and may earn less than he would do if he remained in one place even at a lower rate of payment.

76. The whole question of labour in relation to harvesting is so important, and yet so complicated, that it should in my opinion be made the subject of a special local inquiry with the view of remedying the present defects. Possibly the Clove Growers' Association might assist in the organization of the labour supply, while the establishment of local labour exchanges should help in distributing the labour where it is most required. An extension of the road system, already alluded to in another connection, should have a very beneficial effect on harvesting arrangements, since the rapid transit of clove pickers is a matter of great importance.

77. *Methods of Picking.*—The method now universally practised of climbing the trees and picking by hand appears capable of improvement. It frequently causes much damage by the breaking of branches, and sometimes pickers are prevented from climbing the trees by the presence of *maji ya moto* ants. Ladders were at one time used, and no satisfactory reason for their abandonment has



been forthcoming. It is suggested that trials should be made in the Government plantations with different types of light ladder, or sets of three ladders placed tripod fashion and interlocking at the top. If a suitable picking knife could be devised, it might be the means of gathering larger quantities of cloves in a given time than by climbing and picking by hand. For this purpose I have attempted to design a special knife, a sample of which, made by a Sheffield firm, has been sent to the Director of Agriculture for trial. The knife is intended to be fixed on the end of a light pole or bamboo, to enable cloves to be picked to a height of perhaps 15 feet or more from the ground without climbing.

## 12. Research and Experimental Work.

78. *Conduct of Work.*—Although experimental work of one kind or another has been in progress for many years, much of this work has been less effective than it might have been owing to the want of precision in the methods employed and to lack of continuity; in consequence the correct interpretation of results has not always been possible. In the case of experiments dealing with the cultivation of tree crops, definite results are sometimes not obtainable for many years, and unless continuity is maintained in spite of changes in the personnel, time and money are apt to be wasted on useless effort. Hence in the case of each experiment full details should first be laid down as to the location, objects, and proposed lines of conduct of the experiment; current records should be maintained subsequently of all operations carried out and observations made, until the time arrives to bring the experiment to a conclusion by a definite interpretation of results, positive or negative. In the case of experiments such as those in which it is sought to compare different methods of cultivation or other treatment, the lines of work should be laid down in such a way as to provide data for a correct correlation of results. This can best be effected by adopting the principles of "replicated plots", in which the different methods of treatment are repeated several times under a definite arrangement in order to neutralize the effect of accidental changes in the nature of the soil. In any case, and particularly where small-scale experiments are involved, uniformity in the character of the soil is a matter of great importance. When results of scientific or economic importance are obtained it is desirable that they should be published unless there is any special reason to the contrary. Research work affecting the clove plantations should be under the immediate charge of the Silviculturist whose appointment is recommended below.

79. *Summary of Research and Experimental Work Proposed.*—The following is a summary of research and experimental work proposed in this report:—

- (1) Experiments in the cultivation of crops other than cloves (paragraph 12).
- (2) Study of soil factors (with other factors) in relation to the health and vigour of clove trees (paragraphs 23, 24); see also under (11) and (12).

(3) Experiments to test the effect of close spacing followed later by thinning (paragraph 26).

(4) Experiments to determine the interval between (a) first appearance of young shoots, (b) first appearance of young flower-buds, (c) harvesting of these buds (paragraph 35).

(5) Experiments to determine effect of age of tree, soil, and climatic conditions on periodicity of flowering and size of crop (paragraph 37).

(6) Experiments in layering and in coppicing young trees (paragraph 39).

(7) Further study of the root-rot and leaf-spot diseases (paragraphs 46, 47).

(8) Investigation into the prevalence, life-history, and habits of the clove chafer (paragraph 51).

(9) Experiments in methods of natural regeneration (paragraph 65).

(10) Experiments in nursery practice (paragraph 66).

(11) Experiments in regeneration and in the use of shade trees and soil-improving undergrowth (paragraph 69).

(12) Experiments in cultivation and other treatment (paragraph 72).

(13) Experiments in training trees of special form (paragraph 72).

(14) Experiments in selective breeding (paragraph 74).

(15) Experiments in improved methods of picking cloves (paragraph 77).

80. *Experimental and Demonstration Areas.*—Areas set apart primarily for experimental and demonstration purposes should be sufficiently well distributed to allow for important variations in climate, topography, soil and other factors, and yet sufficiently concentrated and accessible to facilitate supervision. It should meet requirements if experimental stations are centred in two or possibly three of the chief Government plantation areas in Zanzibar, and at Makondeni, Tundaa, and Fufuni in Pemba. At these centres second class meteorological stations should be established, providing records of temperature, rainfall, humidity, soil temperature, and soil moisture. I had an opportunity of discussing this question with Mr. A. Walter, Director of the Meteorological and Statistical Services of East Africa, who has undertaken to help in organizing and equipping these stations and in working out correlation results. Demonstration areas are intended primarily for the application on a practical scale of the results obtained from small-scale experiments. In respect of these areas an accurate record of costs should be maintained. Experimental areas should be excluded from any general scheme of costing for the plantations in which they are situated, although in certain cases it will be necessary to keep costing accounts in respect of individual experiments.

### 13. Staff.

81. Proposals were submitted in 1930 by the late Director of Agriculture for an increase of staff, to include a Silviculturist on a salary scale similar to that of the Agricultural Officers. I am not in a position to comment on the proposals as a whole, since my inquiries did not extend beyond the requirements of the clove plantations, but I would strongly support the appointment of a Silviculturist. Owing to the importance of the work to be carried out by him, the officer selected should be a man of high attainment and should have had a thorough training in forestry and a special training in research methods with reference more particularly to silviculture and to tree pests and diseases. In order to attract a thoroughly competent officer for this post, it would be desirable, if it can be arranged, to include him in the Forest Department cadre of Kenya or Tanganyika and to second him for service in Zanzibar; otherwise it may be difficult to induce an officer of the type required to accept an appointment which holds out to a forest officer little in the way of future prospects. The duties of the Silviculturist would be primarily to carry out research and experimental work, and to advise on problems of regeneration and other matters, in respect of the clove plantations. In this work he should be relieved as far as possible of administrative and executive routine, and should have the co-operation of the Agricultural Officers, particularly in the direction of applying in practice the results of research. The Silviculturist should also be required to advise on the preservation and treatment of such tracts of indigenous forest as remain, including the mangrove forests, and if necessary to prepare working plans.

82. So far as the duties of the Agricultural Officers are concerned, in recent years they appear to me to have been employed too largely on work connected with the payment of advances and the collection of debts. Now that the bonus scheme has been abolished, it is to be hoped that they will find more time for experimental work directed towards the improvement and development of agriculture, without which they cannot be expected to give useful advice.

### 14. Summary of Report.

83. The following is a summary of the main observations and recommendations made in this report, the numbers referring to paragraphs:—

(1) *The Zanzibar Clove Industry.*—The importance of the Zanzibar clove industry may be judged from the fact that the Protectorate furnishes about 83 per cent. of the world's supply of cloves, and that much of the wealth of the country and a large share of the Government revenue are derived from cloves; it is worth making serious efforts to enable so important an industry to maintain its position (2-6). There has been a steady increase in the average annual production of cloves from the Protectorate since the beginning of this century, and the output could be increased considerably (7, 8).

In order to cope successfully with competition from other clove-growing countries, particularly Madagascar, and from synthetic substitutes, future policy should aim at reducing to the utmost the cost of production, stabilizing the price of cloves, and seeking new markets and fresh outlets for their use; for the present, attention should be directed towards improving the existing clove areas rather than planting up new areas to any large extent, and as a safety measure, further experiments should be made in the cultivation of crops other than cloves (9-13).

(2) *Ownership.*—The tendency is towards a decrease in the number and importance of large properties and an increase in the number and importance of small-holdings; the latter are likely to play an increasingly important part in the future (14-18). Government plantations furnish a very small part of the out-turn of cloves, but it is desirable that Government should, under certain conditions, continue the management of clove plantations and possibly increase the area now in its possession (19).

(3) *Condition of Clove Plantations.*—The condition of many of the clove plantations is unsatisfactory, complete or partial mortality being prevalent (20, 40). This is attributable to various factors, for example (a) unfavourable soil conditions, probably produced by growing the trees under unnatural conditions (21-24, 42), (b) drought (41), (c) fungi and other plant parasites (43-48), (d) insects, of which a new and possibly very harmful species has been discovered (49-51): measures to be taken in regard to these various agencies are proposed in the paragraphs quoted. The spacing usually adopted might be improved upon (25, 26). The form and productivity of the trees is not always satisfactory (27). The distribution of age-classes is probably far from normal (28-30).

(4) *Characters and Requirements of the Clove Tree.*—The clove tree is a shade-bearing, moisture-loving tree of the rain forest type, sensitive to drought (31-34). Questions of flowering, crop production, and vegetative reproduction require study (35-39).

(5) *Regeneration.*—The regeneration of the clove plantations should be regarded as a normal operation to be carried out year after year and paid for out of current revenue (52). A large and comprehensive scheme of clear-cutting is unsuitable (53). A rational scheme should be simple and inexpensive (54). The scheme now proposed for private plantations prescribes the formation of working circles, and involves the removal of dead, dying and otherwise undesirable trees wherever they exist, and their replacement by young ones, sustained yields for the future being ensured as far as possible by the proviso that in each working circle the number of young trees below 12 years of age should ordinarily be not less than one-fifth of the total number (55-58). This regeneration scheme should be enforced, and assistance to clove growers should be given on lines somewhat different from those now in force (59-61). Similar schemes of regeneration should be adopted for Government plantations, and

working plans should be prepared (62). Areas unsuitable for clove cultivation should be abandoned (63). Certain alternative methods of regeneration are proposed, together with experimental work aiming at reducing costs (64-70).

(6) *Tending Operations*.—The question of cultivation requires to be investigated on scientific lines (71; 72). Experiments in pruning and pollarding, for the improvement of form, are desirable (73).

(7) *Selective Breeding*.—Experiments in selective breeding for the production of high-yielding and early-yielding strains are desirable (74).

(8) *Harvesting*.—The question of labour in relation to harvesting should form the subject of local inquiry (75, 76). Improvements in methods of picking are suggested for trial (77).

(9) *Research and Experimental Work*.—This should be organized on a more scientific basis (78). A summary is given of research and experimental work proposed (79). Areas should be set apart for experimental and demonstration purposes, and second class meteorological stations should be established at certain experimental centres (80).

(10) *Staff*.—A Silviculturist should be appointed to carry out research and experimental work and to assist in other directions (81). The Agricultural Officers should be given more time for experimental work (82).

R. S. TROUP.

10th December, 1931.

Report of a Mission appointed to  
investigate the Clove Trade in  
India and Burma, Ceylon, British  
Malaya and the Dutch East Indies.

By  
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# CONTENTS.

	Paragraphs
INTRODUCTION ... ..	1-4
INDIA AND BURMA.	
Extent of Trade ... ..	5-8
The Bombay Market ... ..	9-15
Calcutta Market ... ..	16-18
Chief Subsidiary Importing Centres ... ..	19-22
Internal Distribution... ..	23-25
Marketing Costs ... ..	26-32
Adulteration ... ..	33-38
Grading ... ..	39-40
Utilisation ... ..	41-46
Trend of Consumption ... ..	47-48
Publicity ... ..	49
Competition ... ..	50-52
Oil and Vanillin Market ... ..	53
PART III.	
CEYLON.	
Extent of Trade ... ..	54-57
Marketing ... ..	58-59
Adulteration ... ..	60
Utilisation ... ..	61
Local Production ... ..	62
Aspect of Cultivation ... ..	63-64
PART IV.	
BRITISH MALAYA.	
Extent of Trade ... ..	65
Penang... ..	66-72
Singapore ... ..	73-77
The Local Market in Malaya ... ..	78
Adulteration ... ..	79
Utilisation ... ..	80
Clove Production in Penang and Province Wellesley ... ..	81-83
Aspects of Cultivation ... ..	84-86
Clove Production in Federated Malay States ... ..	87-88
PART V.	
THE DUTCH EAST INDIES.	
Extent of Trade ... ..	89-93
The Kretek Strootje Industry ... ..	94-101
The Java Clove Market ... ..	102-106
Present Position and Outlook ... ..	107-113
Local Production and Markets ... ..	114-118
Aspects of Cultivation ... ..	119
PART VI.	
SUMMARY ... ..	120
PART VII.	
STATISTICAL APPENDIX.	
India and Burma ... ..	Tables 1-15
Ceylon ... ..	16-18
British Malaya ... ..	19-23
Dutch East Indies ... ..	24-28
Appendixes ... ..	A-J
Itinerary.	Page 79

# CONTENTS.

	Paragraphs
<b>PART I.</b>	
INTRODUCTION ... ..	1-4
<b>PART II.</b>	
<b>INDIA AND BURMA.</b>	
Extent of Trade ... ..	5-8
The Bombay Market ... ..	9-15
Calcutta Market ... ..	16-18
Chief Subsidiary Importing Centres ... ..	19-22
Internal Distribution... ..	23-25
Marketing Costs ... ..	26-32
Adulteration ... ..	33-38
Grading ... ..	39-40
Utilisation ... ..	41-46
Trend of Consumption ... ..	47-48
Publicity ... ..	49
Competition ... ..	50-52
Oil and Vanillin Market ... ..	53
<b>PART III.</b>	
<b>CEYLON.</b>	
Extent of Trade ... ..	54-57
Marketing ... ..	58-59
Adulteration ... ..	60
Utilisation ... ..	61
Local Production ... ..	62
Aspect of Cultivation ... ..	63-64
<b>PART IV.</b>	
<b>BRITISH MALAYA.</b>	
Extent of Trade ... ..	65
Penang... ..	66-72
Singapore ... ..	73-77
The Local Market in Malaya ... ..	78
Adulteration ... ..	79
Utilisation ... ..	80
Clove Production in Penang and Province Wellesley ... ..	81-83
Aspects of Cultivation ... ..	84-86
Clove Production in Federated Malay States ... ..	87-88
<b>PART V.</b>	
<b>THE DUTCH EAST INDIES.</b>	
Extent of Trade ... ..	89-93
The Kretek Strootje Industry ... ..	94-101
The Java Clove Market ... ..	102-106
Present Position and Outlook ... ..	107-113
Local Production and Markets ... ..	114-118
Aspects of Cultivation ... ..	119
<b>PART VI.</b>	
SUMMARY ... ..	120
<b>PART VII.</b>	
<b>STATISTICAL APPENDIX.</b>	
India and Burma ... ..	Tables 1-15
Ceylon ... ..	16-18
British Malaya ... ..	19-23
Dutch East Indies ... ..	24-28
Appendixes ... ..	A-J
Itinerary.	Page 79



## PART I.

## INTRODUCTION.

1. We were commissioned by the Government of Zanzibar to visit the principal centres of the clove trade and to endeavour to collect as complete information as possible regarding such matters as the ultimate destinations of the cloves exported from Zanzibar to Eastern markets, the channels through which the trade is conducted, the purpose to which the cloves are put and the factors governing the demand, the quantities absorbed annually, by the various centres of consumption, the proportion in which these quantities are derived from Zanzibar and from other sources, the differences in quality between Zanzibar cloves and cloves produced elsewhere, and the possibilities of extending the demand.

2. We left Zanzibar on the 24th of May, 1932, and arrived in Bombay on the 3rd of June. After completing our enquiries in Bombay we visited Delhi, Agra, Cawnpore, Calcutta, Rangoon, Madras, Bangalore, and Mysore, and left India for Ceylon on the 21st of July. We reached Colombo on the 22nd of July and were able to visit the clove-growing area and local marketing centres in the neighbourhood of Kandy before leaving for Penang on August the 14th. We arrived in Penang on the 18th of August and left Singapore for Batavia on August the 26th, and during this period had an opportunity of visiting the districts where cloves are produced in Penang and inspecting the experimental cultivation which has been undertaken at Serdang in the Federated Malay States. While in the Dutch East Indies, which we reached on the 28th of August, we visited Buitenzorg, Semarang, Koedoes and Sourabaya in Java, Macassar in Celebes, and Amboyna in the spice-growing group of the Moluccas. We left Batavia on the 28th of September returning to Singapore where we have taken the opportunity of compiling this report while awaiting convenient steamer connections for the homeward journey. A detailed itinerary will be found at the end of the report.

3. In all the territories visited our investigations were greatly facilitated by the statistical and other data which had been collected in advance under arrangements made by the Colonial Office. Help of this nature, and guidance in many directions, were received from Government officers in India and Burma, Ceylon and British Malaya, and from officers attached to the Department of Overseas Trade in Bombay, Calcutta, Singapore, and Batavia. We have to record our great indebtedness to these officers for the assistance rendered. We have also to express our deep gratitude to the various officials of the Dutch East Indies Government who did everything that was possible to facilitate our investigations both in Java and the Outer Islands. We might add that no less valuable help was received in unofficial circles and that our work owed much to the facilities afforded by Messrs. Mackinnon, Mackenzie & Co., in India and elsewhere, and by the Royal Packet Navigation Co. in the Dutch East Indies.

4. In the following report we have attempted to set forth the information which we were able to obtain so as to direct attention to the more cardinal features of the clove trade in each of the countries visited. As a result, there is some lack of uniformity in the treatment of the various centres reviewed, but to the extent that data are available we have attempted to bring out the inter-relationship of the different territorial markets.

It has to be realised that, except in one or two centres, the clove is a comparatively insignificant article of commerce. Its internal movements are never of sufficient importance to warrant a separate classification in transport returns, and as a commodity it rarely attracts attention in trade publications. With regard to import and export statistics there is throughout the area covered a divergence of practice both in respect of units of quantity recorded and the statistical year employed, while owing no doubt to the character of the trade published values are not always reconcilable with the known history of market prices. The main value of the statistical material available is in relation to quantities and the direction of distribution.

The statistical tables included in this report have been compiled from the returns supplied to the mission in the various centres visited. The quantities being recorded in terms of hundredweights and frasilas of 35 lbs. The more important of these tables are inserted throughout the various sections of the report for convenience of reference, and are embodied in Part VII which also includes such subsidiary statistical and marketing data as we were able to collect.

Arrangements have been made for keeping these records up-to-date by means of periodical returns to be furnished by the proper authorities in the various territories concerned. Although the material is less comprehensive than was anticipated, it is nevertheless adequate as a measurement of the extent of the different markets and as a guide to the trend of consumption, and we trust that it may be made the foundation of a statistical service of considerable value to the Zanzibar clove industry.

PART II.  
INDIA AND BURMA.  
(i) EXTENT OF TRADE.

5. *General.*—It has to be noted that the year to which Indian trade statistics relate ends on the 31st March, and that in these statistics the general classification "cloves" includes not only the ordinary clove and the ordinary clove stems of commerce, but also exhausted cloves and exhausted clove stems.

Exhausted cloves are the residue obtained after the essential oil has been extracted from ordinary commercial cloves by a process of distillation, and exhausted clove stems are the corresponding residue of ordinary clove stems. The expression "clove produce" is used hereafter to describe inclusively both cloves and clove stems whether genuine or exhausted.

The importation of exhausted material into India is not inconsiderable, and the method of classification referred to introduces an element of obscurity into the Indian figures of clove imports as reflecting ordinary cloves and clove stems on the one hand, and exhausted cloves and clove stems on the other. It is possible, however, by analysing the import returns in relation to countries of consignment and unit values, to arrive at the approximate quantities of each category of clove produce imported. A still closer approximation of these quantities is obtainable by analysing the import figures in relation to the corresponding customs duty assessments, which apply separate tariff valuations to (1) cloves, (2) exhausted cloves, and (3) clove stems (genuine and exhausted). Following the latter method of calculation, the Director-General of Commercial Intelligence and Statistics was good enough to extract, for the information of the mission, a statement detailing the imports of exhausted cloves and clove stems, in respect of the ten years ended the 31st March, 1932. The imports of clove stems included a certain quantity of genuine stems shipped direct from Zanzibar—a rough estimate of which may be made from the Zanzibar trade returns—the balance representing exhausted clove stems.

6. *Statistical Summary.*—The imports of clove produce into India during the decennial period 1922-3 to 1931-2, and the re-exports of clove produce from India during the same period, were in accordance with the figures shown in Table I.

TABLE I.  
STATEMENT SHOWING THE IMPORTS AND EXPORTS OF CLOVE PRODUCE OF ALL  
CATEGORIES FOR THE TEN YEAR PERIOD 1922-3 to 1931-2.

(To nearest '000.)

Years	Total Imports		Re-exports		Retained for Home Consumption	
	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas
1922-3... ..	109	349	25	80	84	269
1923-4... ..	62	198	11	35	51	163
1924-5... ..	100	320	26	83	74	237
1925-6... ..	106	339	29	93	77	246
1926-7... ..	72	230	8	26	64	205
1927-8... ..	83	266	2	6	81	259
1928-9... ..	69	221	2	6	67	214
1929-30... ..	83	266	3	10	80	256
1930-31... ..	64	205	3	10	61	195
1931-2... ..	84	269	1	3	83	266

The position revealed by these figures may be summarised in the following terms:—

	Cwts.	Frasilas
(a) Average annual imports of clove produce during the decennial period 1922-32	83,000	266,000
(b) Average annual re-exports of clove produce during the decennial period 1922-32	11,000	35,000
(c) Average annual imports of clove produce retained for Home Consumption during the decennial period 1922-32	72,000	230,000

Subject to minor discrepancies arising from the system of classification explained in the preceding paragraph, the imports of clove produce into India retained for Home Consumption during the ten years referred to were in accordance with the categories and figures shown in Table II.

TABLE II.

STATEMENT SHOWING THE APPROXIMATE IMPORTS OF CLOVE PRODUCE OF DIFFERENT CATEGORIES FOR HOME CONSUMPTION FOR THE TEN YEAR PERIOD 1922-3 to 1931-2.  
(To nearest '000.)

Years	(1) Ordinary Cloves		(2) Exhausted Cloves		(3) Exhausted Clove Stems		(4) Ordinary Clove Stems		(5) Total of 2, 3, and 4		(6) Total Imports	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922-3	77	246	1	3	2	6	4	13	7	22	84	269
1923-4	43	138	5	16	1	3	2	6	8	26	51	163
1924-5	57	182	10	32	5	16	2	6	17	54	74	237
1925-6	64	205	8	26	4	13	1	3	13	42	77	246
1926-7	50	160	12	38	1	3	1	3	14	44	64	205
1927-8	66	211	9	29	5	16	1	3	15	48	81	259
1928-9	51	163	11	35	5	16	-	-	16	51	67	214
1929-30	68	218	5	16	6	19	1	3	12	38	80	256
1930-31	52	166	3	10	6	19	-	-	9	29	61	195
1931-2	63	202	1	3	18	58	1	3	20	64	83	266

The average annual consumption of the different categories set out may be summarised as follows:—

	Cwts.	Frasilas
(d) Ordinary Cloves ... ..	59,000	189,000
(e) Ordinary Clove Stems ... ..	1,000	3,000
(f) Exhausted Cloves ... ..	6,000	19,000
(g) Exhausted Clove Stems ... ..	6,000	19,000
	72,000	230,000

The average annual quantity of cloves of other than Zanzibar origin included in the above figures amounted to approximately 1,000 cwts. or 3,000 frasilas, so that during the period under review the average annual imports of Zanzibar cloves into India may be placed at about 71,000 cwts. or 227,000 frasilas of which 58,000 cwts. or 186,000 frasilas were retained for home consumption. During the corresponding period the average annual exports of cloves from Zanzibar was approximately 188,000 cwts. or 602,000 frasilas. It may therefore be assumed that during the ten years referred to, and apart from exhausted or adulterant material, the Indian market took about 37 per cent. of Zanzibar's total exports, of which nearly 31 per cent. went into actual consumption into India and Burma.

The average annual quantity of 59,000 cwts. or 189,000 frasilas of cloves which was consumed in the Indian markets during this period was supplemented by approximately 13,000 cwts. or 42,000 frasilas of exhausted cloves, exhausted clove stems and ordinary clove stems, material which was used almost exclusively for purposes of adulteration. The latter imports increased the annual consumption of clove produce in India and Burma to 72,000 cwts. or 230,000 frasilas, an amount equivalent to 38 per cent. of the total Zanzibar clove exports.

7. *Import of Clove Oil.*—In addition to the above there was imported into India and Burma during the same decennial period an average annual quantity of 59 gallons of clove oil in accordance with the particulars shown in Table III. As the quantity of cloves required for the production of 59 gallons of oil may be placed at, roughly, 30 cwts. or 100 frasilas, this branch of the trade may be said to be negligible both in relation to the Indian clove market and to the Zanzibar export market. No information is available regarding the quantities of vanillin imported, and there is

no reason to suppose that, at present, India provides anything but a very small outlet for this commodity. As, however, we shall have occasion at a later stage to refer to the question of vanillin consumption, it may here be noted that in the year 1929-30—before the effects of the trade depression were seriously felt—imports of cocoa and chocolate into India were valued at Rs. 3,42,000, and imports of confectionery at Rs. 25,64,000.

• TABLE III.

STATEMENT SHOWING THE QUANTITY AND VALUE OF CLOVE OIL IMPORTED FOR THE TEN YEAR PERIOD 1922-3 to 1931-2.

Year	Quantity Gallons	Value Rupees
1922-3	49	2,926
1923-4	38	2,328
1924-5	86	4,991
1925-6	78	3,354
1926-7	123	5,693
1927-8	76	2,653
1928-9	31	1,402
1929-30	49	2,230
1930-1	48	2,914
1931-2	16	669

8. *Ports of Entry.*—The import trade in Zanzibar cloves is conducted in greater or lesser quantities through the major ports of Calcutta, Bombay, Madras, and Rangoon, while small parcels continue to be shipped, mostly by dhow, into Karachi and the smaller ports of the Western seaboard such as Porebunder, Cutch Mandvi, and Jamnagar. The great bulk of the trade is, however, handled by the port of Bombay, which is also the centre of importation of the exhausted material used for purposes of adulteration.

The predominant position of Bombay is, indeed, one of the most significant factors in the system of clove marketing and distribution throughout India, for the operations which are focussed in this market provide the key to the more important problems affecting the wholesale side of the trade.

(ii) THE BOMBAY MARKET.

9. *General.*—The position of Bombay as the chief centre of the clove trade in India is of long standing. It rests not only on the close commercial relationships established on the basis of reciprocal trade which have traditionally linked the port with Zanzibar, but also upon Bombay's historical connection with the spice trade of India and the East. Its emergence as the principal port of Western India, equipped with extensive shipping services to Europe and America, to the Far East, and to the ports of Arabia and Persian Gulf, has enabled it to concentrate in its bazaar the export business in spices of Indian origin, and to establish a world market for the spice trade between the East and the West.

There are other factors which contribute to the hold which Bombay has continued to exercise upon the clove trade in India, especially in relation to Indian demand. Its local market is of considerable importance; and its admirable railway facilities secure for it a very wide internal area of trade distribution including many districts of primary importance as centres of actual clove consumption. Indeed, the fact that freight rates ruling between Zanzibar and Bombay are, on account of direct steamer connections, lower than those between Zanzibar and the other Indian ports, enables it to function economically in the internal distribution of cloves throughout a wider area than that which applies to imported merchandise generally, the more so as rail freight charges on cloves are light in relation to their value as a commodity.

The imports of clove produce into the port of Bombay are not shown separately from the imports into the Bombay Presidency as a whole and set forth in Table IV. The quantities handled by the smaller ports of the Presidency are, however, insignificant and the Bombay trade during the period 1922-3 to 1931-2 may be measured approximately by the figures recorded in the table referred to.

TABLE IV.

STATEMENT SHOWING IMPORTS OF CLOVE PRODUCE INTO THE BOMBAY PRESIDENCY (EXCLUDING SIND) FOR THE TEN YEAR PERIOD 1922-3 to 1931-2.

Year	(1) Clove produce from Overseas		(3) Adulterant Material		(2) Re-exports		(4) Ordinary Cloves for Home Consumption	
	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas
1922-3	99,400	318,080	7,000	22,400	25,400	81,280	67,000	214,400
1923-4	55,700	178,240	7,600	24,320	10,600	33,920	37,500	120,000
1924-5	91,500	292,800	16,400	52,480	25,600	81,920	49,500	158,400
1925-6	96,800	307,760	13,100	41,920	29,200	93,440	54,500	174,400
1926-7	63,900	204,480	13,800	44,160	8,400	26,800	41,700	133,440
1927-8	64,000	204,800	15,000	48,000	2,100	6,720	46,900	150,080
1928-9	53,100	169,920	15,500	49,600	2,000	6,400	35,600	113,920
1929-30	66,200	211,840	11,000	35,200	3,000	9,600	52,200	167,040
1930-31	51,500	164,800	9,200	29,440	2,600	8,320	39,700	127,040
1931-2	65,500	209,600	19,400	62,080	500	1,600	45,600	145,920

During the ten years referred to the average annual imports into the Presidency and its share of the total imports trade of India and Burma were as follows:—

	Cwts.	Frasilas	Approximate per cent. of total trade
(a) Average annual imports of Clove product ... ..	71,000	227,000	86
(b) Re-exports ... ..	11,000	35,000	100
(c) Imports for Home Consumption ... ..	60,000	192,000	83

Of the total imports retained for Home Consumption and shown under (c) the proportion of ordinary cloves and adulterant materials were:—

	Cwts.	Frasilas	Approximate per cent. of total trade
Ordinary cloves ... ..	47,000	150,000	78
Adulterant materials ... ..	13,000	42,000	100

The Bombay market thus handles practically the whole of the Indian re-export trade and the whole of the trade in imported adulterants, in addition to nearly 80 per cent. of the imports of ordinary cloves.

10. *Import Transactions.*—Until very recently Bombay was, in its method of handling clove import business, very largely a consignment market. The Zanzibar shipper dispatched his parcels of cloves on consignment to his agent in Bombay, the latter selling on instructions to the local wholesale dealers. On the whole, this method of sale worked to the advantage of the shipper who exercised some control over the Bombay price, which tended to move in sympathy with that ruling in the Zanzibar and Dutch East Indies markets.

The tendency at the moment is for the Bombay dealers to import direct from Zanzibar, purchasing either on a c.i.f. basis or through the services of a commission agent. These methods of transacting overseas business are not uncommon in the Zanzibar market, and under ordinary circumstances the change in the system of purchase referred to would not call for particular notice. The special significance of this development in relation to the Bombay market lies in the fact that the trade is now concentrated in the hands of a very few importers of whom one or two occupy exceptionally strong positions in the trade.

So far as the mission was able to ascertain, the tendency for individual operators to establish something in the nature of a monopoly in the Bombay market is still on the increase, and a number of dealers who had formerly been considerably interested in the trade and had purchased consignment parcels were gradually being forced out of this line of business.

11. *Adulteration.*—It will be convenient at this point to make some reference to the practice of adulterating the genuine cloves imported into the Indian market, a question which will, however, require further discussion at a subsequent stage of our report.

As indicated in paragraph 6, of a total average annual quantity of approximately 72,000 cwts. or 230,000 frasilas of clove produce imported for home consumption over the period 1922-3 to 1931-2, about 13,000 cwts. or 41,000 frasilas constituted adulterant material. On the basis of these figures the average quantity of adulterants mixed with genuine cloves amounted to about 22 per cent. In actual practice the percentage of adulteration is subject to wide variation, but its general effect is naturally to place upon the market a cheaper article than the standardised cloves sent on consignment from Zanzibar. There would appear to be on the part of Indian consumers a general tolerance of the sale and purchase of adulterated commodities; and bazaar psychology certainly places the clove dealer manipulating large stocks of adulterated cloves in a strong position when in competition with the agent offering untouched but more expensive cloves on behalf of the Zanzibar consignor. We were unable to avoid the conclusion that this feature of the market is responsible, to a large extent, for the tendencies referred to in the preceding paragraph.

12. *Variations of Annual Imports in relation to fluctuations of Production.*—The Bombay importer keeps in close touch with the Zanzibar market through his local agents and is thus well informed regarding price movements at the producing end, and harvest expectations. He has, at the same time, the advantage of knowing the approximate stock position in Bombay at any particular moment and is able to anticipate the movement governing up-country sales.

The fact that the importer is thus in a position to anticipate intelligently movements both in supply and in demand no doubt explains the absence of a market for "futures" in Bombay, and what we believe to be the relative stability of consumption further limits the necessity for speculation in the trade. Variations in the figures of annual importation, reflecting as they do crop fluctuations in Zanzibar, are merely indicative of the success with which the importer is able to gauge all the factors in the position.

In this connection it is significant to note how imports tend to average out if the figures of two successive years are combined. The imports over the decennial period brought under review are so grouped in the following statement:—

Period.	Imports in Cwts. (.000).
1922-3 and 1923-4     ...     ...     ...	77 plus 43=120
1924-5 and 1925-6     ...     ...     ...	57 plus 64=121
1926-7 and 1927-8     ...     ...     ...	50 plus 66=116
1928-9 and 1929-30     ...     ...     ...	51 plus 68=119
1930-1 and 1931-2     ...     ...     ...	52 plus 63=115

While it is no doubt the case that clove prices throughout the principal markets in India react to the variations in the price level ruling in Zanzibar, it may, we think, be safely assumed that, by averaging out his import transactions, the Bombay operator is enabled to apply, to some extent, a similar averaging process in adjusting his selling price to the internal markets. This process of price averaging, in counteraction to the fluctuations at the centre of production, continues to operate as the commodity moves inland, being the more marked the further removed the market is from the point of first importation.

The relative stability of consumption implied by the foregoing considerations is an important feature of the Indian clove market and will call for notice in subsequent sections of this report. At the moment we direct attention to the strong position in the trade occupied by the Bombay importer. It is by no means suggested that his ultimate interests clash with the interests of the Zanzibar clove industry, or that he is not on common ground with the Zanzibar supplier in seeking a wider outlet for clove spice, but it is important that the factors which contribute to the strength of his position should be well understood.

13. *Information regarding Stock Position.*—In Bombay—as in other important centres—clove imports are usually cleared from the Customs immediately on arrival, little advantage being taken of the bonded warehouse facilities existing. This practice adds to the difficulties of estimating stocks held in the port at any given time. The only information available on this point is that in the hands of the importers and dealers themselves, and there is little if any prospect of devising means whereby regular and reliable figures regarding the stock position in Bombay could be made available for publication.

14. *Sale for Internal Distribution.*—Formerly, the importer sold to the local wholesale spice dealer or to the buying agent for up-country or subsidiary coastal markets in sufficiently large units to suit the convenience of consignment business. For if the multiplication of handling costs is to be avoided, such business must rely upon the disposal of reasonably large quantities.

The present tendency is, however, for the direct importer to reduce his selling unit to a bale or even a maund, a practice which necessarily introduces a further complication in the position of the consignment trade.

The direct importer having thus extended the scope of his operations the line of demarcation between importer, wholesale dealer, and first retailer has ceased to be open to clear definition.

It might be added that while the bulk of the sales effected by the larger importers are of adulterated produce, mixed down to meet the price requirements of their customers, standard quality cloves are also sold on demand. It does not follow, however, that all the supplies of standard quality cloves which leave the Bombay market are required to meet a demand for such quality. Adulterant material is freely obtainable in Bombay through the services of ordinary buying agents in touch with Hamburg and other sources of supply, and there are enterprising dealers in up-country centres who prefer to do their own mixing.

15. *Re-export Trade.*—The average annual quantity of clove produce re-exported from India and Burma during the period 1922-3 to 1931-2 has been seen to represent approximately 11,000 cwts. or 35,000 frasilas, practically the whole of which was handled by the port of Bombay.

The variable nature of this trade is disclosed by the particulars recorded in Table V, which indicates that the volume of business reached its peak figure of 29,210 cwts. or 93,470 frasilas in the year 1925-6, and fell to the insignificant total of 550 cwts. or 1,760 frasilas in the year 1931-2.

TABLE V.  
STATEMENT SHOWING THE RE-EXPORTS OF CLOVES DURING THE PERIOD  
1922-3 to 1931-2.  
DIRECTION OF TRADE.

Year	Straits Settlements		Countries served by Arabian Sea and Persian Gulf, e.g. Mesopotamia, Iraq, Persia, Aden, and Muscat		Egypt, Sudan, Erithrea, and Italian Somaliland		Other Countries		Total	
	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas
1922-3	21,770	69,664	1,000	3,200	570	1,824	2,050	6,560	25,390	81,248
1923-4	8,460	27,072	880	2,816	500	1,600	720	2,304	10,560	33,792
1924-5	22,580	72,256	1,730	5,536	230	736	1,110	3,552	25,650	82,080
1925-6	26,500	84,800	1,380	4,416	150	480	1,180	3,776	29,210	93,472
1926-7	5,390	17,248	1,890	6,048	120	384	970	3,104	8,370	26,784
1927-8	550	1,760	1,300	4,160	160	512	130	416	2,140	6,848
1928-9	1,050	3,360	540	1,728	270	864	90	288	1,850	6,240
1929-30	1,040	3,328	1,070	3,424	170	544	800	2,560	3,080	9,856
1930-31	1,400	4,480	370	1,184	80	256	750	2,400	2,600	8,320
1931-2	10	32	330	1,056	20	64	190	608	550	1,760

The major cause of the changes in the nature of the re-export business transacted has been the diversion of the trade with Singapore.

The Singapore trade, which will be referred to in subsequent sections of this report, accounted for about 81 per cent. of the re-exports shipped during the period under review. The remaining 19 per cent. was shipped to ports serving a wide area of distribution. Some of the business transacted was made possible by exchange movements and stock shortages elsewhere under conditions which are not likely to recur. In other directions business has been lost owing to the extended scope of direct shipments from Zanzibar.

Bombay has thus lost its former importance as a centre of clove redistribution. Its most consistent trade has latterly been with the countries served by the ports of the Arabian Sea and the Persian Gulf. The reduced shipments to these ports during the last two years are no doubt the result of economic conditions. A recovery may be anticipated on the improvement of general trade, for Bombay is well placed to retain that portion of its former re-export trade which is dependent upon its connection with Arabia, Persia, and adjacent territories.

## (iii) THE CALCUTTA MARKET.

16. *General.*—Prior to the War the port of Calcutta was almost entirely dependent upon the Bombay market for its supplies of clove produce. Within recent years, however, it has drawn an increasingly large proportion of its stocks direct from Zanzibar and has at the same time extended the sphere of its distributing operations at the expense of Bombay. As a centre of general trade, Calcutta naturally serves Bengal, Assam, Nepal and Bihar and Orissa, and impinges upon the United Provinces, which look to it as an alternative source of supply in competition with Bombay.

Calcutta now enjoys occasional direct shipping connections with Zanzibar, as well as regular transshipment facilities. The freight rate on cloves—shipped either direct or in transshipment from Zanzibar—is 65/- per b/1 ton as compared with the rate of 60/- per b/1 ton less 10 per cent. rebate (i.e. 54/- net) between Zanzibar and Bombay. The difference of 11/- a ton represents a disadvantage to Calcutta which, so far as the local market and a certain area of distribution are concerned, is more than off-set by the costs incurred in buying in Bombay and the expenses of additional transport.

It will be observed from the particulars shown in Table VI that, during the decennial period 1922-3 to 1931-2, the average annual imports of clove produce into the Bengal Presidency was 11,800 cwts. or 37,800 frasilas, of which 11,500 cwts. or 36,800 frasilas represented ordinary cloves. Practically the whole of this trade was handled by Calcutta, and so far as ordinary cloves are concerned the great bulk of the supplies were obtained either direct, or in transshipment, from Zanzibar.

TABLE VI.

STATEMENT SHOWING THE IMPORTS OF CLOVE PRODUCE INTO THE BENGAL PRESIDENCY FOR THE TEN YEAR PERIOD 1922-3 to 1931-2.

Year	Total Clove Produce		Adulterant Material		Ordinary Cloves	
	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas
1922-3	9,500	30,400	—	—	9,500	30,400
1923-4	5,200	16,640	—	—	5,200	16,640
1924-5	8,500	27,200	600	1,920	7,900	25,280
1925-6	8,900	28,480	600	1,920	8,300	26,560
1926-7	7,600	24,320	600	1,920	7,000	22,400
1927-8	17,800	56,960	500	1,600	17,300	55,360
1928-9	14,600	46,720	500	1,600	14,100	45,120
1929-30	16,100	51,520	100	320	16,000	51,200
1930-31	12,400	39,680	300	960	12,100	38,720
1931-2	17,500	56,000	—	—	17,500	56,000

In addition to these direct imports from overseas the following quantities of clove produce were shipped coastwise to Calcutta from Bombay during the period 1926-7 to 1930-1:—

	Cwts.	Frasilas
1926-7 ... ..	5,100	16,320
1927-8 ... ..	2,700	8,640
1928-9 ... ..	1,300	4,160
1929-30 ... ..	500	1,600
1930-31 ... ..	200	640

17. *Adulteration.*—It is to be feared that, with regard to supplies of adulterant materials, the figures of direct and coastwise importation flatter the character of the trade operated at this centre. We found no reason to believe that in the practice of adulteration the Calcutta trade is materially different from that of Bombay. Indeed, special attention was here directed to the considerable extent to which dealers “water” their clove stocks prior to sale, although there is little reason to suspect that in this direction Calcutta outdoes other centres.

That the statistical tables referred to fail to disclose the extent of the adulteration carried on, is accounted for by the fact that in Calcutta exhausted material is now largely obtained from Bombay, from which point it is railed direct to Calcutta. While, therefore, unadulterated cloves are available for purchase in Calcutta, as they are in Bombay, there exists in both markets supplies of clove produce “mixed,” in varying degrees, to meet the requirements of the local retailer or the up-country dealer.



18. *Trade Practice.*—So far as general handling methods are concerned there is little essential divergence of practice between the two ports, except perhaps that a larger proportion of the total imports into Calcutta are purchased on a consignment basis. It would not be far wrong to say that direct imports and consignment imports share the trade in equal proportions.

Despite the common characteristics of the trade at the two ports, it may safely be surmised that the development of Calcutta as a centre of direct importation from Zanzibar is a healthy feature. It brings a larger number of importers into the export market in Zanzibar, and militates against the tendency in the direction of monopolistic control. This connection can of course only be developed on a basis of sound trading relationships between the port and Zanzibar. In this connection we have to record that we received complaints regarding the practices of a Zanzibar shipper who consistently over-valued his consignments, and having drawn in excess of the final sale value, refused to liquidate his indebtedness to his agent.

(iv) CHIEF SUBSIDIARY IMPORTING CENTRES: MADRAS, RANGOON, KARACHI.

19. *General.*—It would be incorrect to describe the above-named ports as centres of direct importation so far as the clove trade is concerned. They are largely dependent upon the Bombay market for their supplies, and, except in the case of Rangoon, they do not function in the internal distribution of clove produce within the radius defined by their normal activities in the re-distribution of general imported merchandise. But each of these ports does obtain, or has done so in the past, a portion of its supplies, however small, direct from Zanzibar. And there appears to be no reason why direct business with the source of overseas supply should not be extended on an economic basis, for the difference in the transshipment freight rate from Zanzibar to these ports and the direct freight rate to Bombay leaves a sufficient margin over the extra handling and transport charges involved by purchase from Bombay. These centres, therefore, may be regarded as importing markets of greater or lesser potential importance and, as in the case of Calcutta, capable of operating, on a geographical basis, their natural share of the trade.

In so far as the method of handling direct shipments from Zanzibar is concerned, the invariable practice in these ports is for the dealer to buy outright in Zanzibar, that is to say, there is no consignment business. The direct shipments are sold into the local markets in the same way as in Bombay and Calcutta, but in so far as these centres are also buyers from Bombay, the general character of their trade approximates more closely to that of the internal markets which will be referred to at a later stage.

20. *Madras.*—The particulars recorded in Table VII show the direct imports of cloves into the Madras Presidency during the period 1922-3 to 1931-2. The bulk of these imports, which averaged about 400 cwts. or 1,300 frasilas per annum, were handled by the port of Madras.

TABLE VII.

STATEMENT SHOWING THE TOTAL IMPORTS OF CLOVE PRODUCE INTO THE MADRAS PRESIDENCY FOR THE TEN YEAR PERIOD 1922-3 to 1931-2.

Year	Cwts.	Frasilas
1922-3	121	387
1923-4	1,542	4,934
1924-5	128	410
1925-6	6	19
1926-7	66	211
1927-8	577	1,846
1928-9	388	1,242
1929-30	321	1,027
1930-31	270	864
1931-2	523	1,674

During the five years 1926-7 to 1930-31 coastwise importations from Bombay to Madras averaged about 120 cwts. or 380 frasilas per annum. In addition, an indeterminable quantity of clove produce was imported by rail. Apart from its local market, Madras is the natural point of re-distribution for a considerable area constituted by the southern portions of the Presidency, and there would appear to be room for a limited expansion of the clove trade handled from this centre. It might be safe to say that the supplies now obtained direct from Zanzibar could be doubled.

21. *Rangoon*.—Practically the whole of Burma which, as will appear later, is not one of the more important areas of clove consumption, receives its supplies through the port of Rangoon, and by means of coastwise shipments from Bombay.

The shipments from Bombay during the five years 1926-7 to 1930-31 were as follows:—

	Cwts.	Frasilas
1926-7 ... ..	4,943	15,818
1927-8 ... ..	3,941	12,611
1928-9 ... ..	573	1,834
1929-30 ... ..	2,051	6,563
1930-31 ... ..	946	3,027

In addition to these coastwise imports averaging 1,800 cwts. or 5,800 frasilas per annum, there were imported during the same period supplies averaging 300 cwts. or 1,000 frasilas by way of direct shipment from Zanzibar. It was, however, disclosed during the course of our enquiries that the direct importations which took place between 1927-30 were not operated by dealers now in business, and the position at the moment is that Rangoon is supplied entirely from the Bombay market. Here again it is difficult to discover any essential reason why direct contact between Rangoon and Zanzibar should not be exploited. Incidentally, rice supplies are forwarded in direct transshipment in the opposite direction.

22. *Karachi*.—As indicated in Table VIII the direct imports of cloves into Karachi during the period 1922-3 to 1931-2 averaged only 14 cwts. or 45 frasilas per annum. During the five years 1926-7 to 1930-31 the coastwise movement of cloves from Bombay averaged about 700 cwts. or 2,200 frasilas. It is probable that a certain amount of clove produce, including adulterant material, also reached Karachi from Bombay by rail.

TABLE VIII.  
STATEMENT SHOWING THE IMPORTS OF CLOVE PRODUCE INTO KARACHI FOR  
THE TEN YEAR PERIOD 1922-3 to 1931-2.

Year	Quantity	
	cwts.	frasilas
1922-3	30	96
1923-4	—	—
1924-5	27	86
1925-6	21	67
1926	25	80
1927-8	—	—
1928-9	16	51
1929-30	—	—
1930-31	5	16
1931-2	14	45

It is apparent from the figures referred to that Karachi does not participate, to any considerable extent, in the distribution of cloves to the North-West of India. Nevertheless it is the natural gateway to a great part of that area, as well as to Baluchistan and Afghanistan. And it is the market and port of shipment for the potentially important area irrigated by the Sukkur Barrage. We had an opportunity of discussing, with merchants conversant with the trade of the port, the possibilities of Karachi as a centre of clove distribution in direct touch with the Zanzibar market, and formed the impression that there is no essential reason why some development in this direction should not be anticipated.

(v) INTERNAL DISTRIBUTION.

23. *General*.—It is hardly possible, in dealing with a country so vast as India, to generalise regarding the methods governing its internal trade organisation. The number of different hands through which an article must pass before it reaches the ultimate consumer, and the charges which accumulate in the course of its up-country movements, depend upon the locality of the consumers' town or village and the transport facilities linking it with the main ports and more important internal centres.

In the principal internal markets, i.e. in the larger towns which draw their supplies direct from the importing centres, the wholesale dealers employ a commission agent at the port to purchase and forward the supplies which they require. A further stage in the up-country movement is from the large internal markets to the smaller towns located within their particular areas of trade distribution and produce collection. Here there is the necessary intervention of a further commission agent. The process may be repeated once or oftener in the case of the more remote townships.

The large retailer establishes direct contact with the wholesaler of his particular trade centre, but the innumerable petty retailers, whose stocks of cloves at any given time are seldom likely to exceed the contents of a one pound cannister, must look for their supplies to the larger retailer and not to the wholesale dealer.

Throughout all the ramifications of this system of distribution, which is characterised by a great variety of local trade customs as well as by a diversity of weights and measures, the importance of credit in permitting clove spice to move freely from one hand to another is clearly evident. When we were told that "one can sell an elephant in India on credit, but cannot sell a needle for cash," we found little reason to doubt the broad truth of the assertion.

24. *Principal Internal Centres.*—Of the centres of distribution in the interior Cawnpore, in the United Provinces, is materially the most important, both on account of the fact that it is a considerable industrial centre with a population of nearly a quarter of a million, and because its excellent railway facilities enable it to serve a large surrounding area. Next to Bombay and Calcutta, it claims to be the largest centre of the clove trade in India, handling for local use and distribution from 1,100 to 1,500 cwts. per annum.

It may be remarked that the Cawnpore clove dealers appeared to display an exceptionally keen interest in the activities of the mission and instigated a discussion regarding the possibilities of establishing direct contact with the Zanzibar market. There seems to be no reason why, in the case of so large a centre of consumption, such contact should not be established.

Among other of the more important internal centres may be mentioned Lucknow, Agra, and Allahabad in the United Provinces; Ahmedabad in the Bombay Presidency; Nagpur and Jubbulpur in the Central Provinces; Delhi; Hyderabad in the Nizam's Dominions; Daipur in the Rajputana Agency; Madura in the Madras Presidency; Bangalore in the Mysore State; Amritsar and Lahore in the Punjab; and Peshawar in the North-West Frontier Province. These centres are all within the Bombay area of distribution. Calcutta serves Dacca in Bengal, Patna in Bihar and Orissa and, as previously mentioned, obtains some share of the trade centred in the markets of the United Provinces.

25. *Direction of Internal Distribution.*—In this connection reference may be made to Appendix A showing the area and principal trade centres served by the railway systems operating at the major ports of entry. The location of the internal markets referred to has usually been determined by the exigencies of general trade distribution as dictated by such circumstances as density of population and the extent of primary production. But in the case of clove produce, distribution does not follow uniformly the direction of general trade movements. Modifying factors arise not only out of varying climatic conditions in different parts of the country but also out of the uses to which cloves are put. Consideration of these factors may conveniently be postponed until a later stage, but some indication of the more important areas from the consumption standpoint is given in the map attached to this report.

#### (vi) MARKETING COSTS.

26. *Absence of Ascertainable Price Structure.*—It will be readily appreciated that the ramifications of the clove trade throughout India make any comprehensive analysis of costs an almost impossible undertaking. The actual charges incurred in respect of such items as transport, handling, and commissions are of relatively minor importance as factors in the construction of the ultimate selling price of clove produce. The main item—excluding fiscal levies to which reference will subsequently be made—is represented by the aggregate of the profits extracted by the various parties engaged in the distribution of the commodity. But the whole system of marketing, complicated as it is by stock-holding and price-averaging manipulations and by the exploitation of adulteration, tends to obscure the extent of the various profits accruing to importer, wholesale dealer, and retailer.

27. *Wholesale Profits.*—The range of prices shown in Table IX, which is compiled from price quotations for standard quality cloves obtained in various centres during the course of our enquiries at a time when the market was steady, fails to disclose any marked divergence of selling price in one locality or another. And we formed the impression that the margin of profit secured by importers and wholesale dealers was not excessive so far as their transactions were restricted to standard quality cloves. With regard to mixed qualities, the price quotations of which are not

regulated by the play of competition to the same extent as the standardised article, the position appeared to be otherwise. The relative price of the adulterated article always suggested that the hidden profit was substantial and there can be little doubt that average wholesale prices throughout the trade are unnecessarily high.

TABLE IX.

## STATEMENT SHOWING THE CURRENT PRICE OF STANDARD QUALITY CLOVES AT VARIOUS MARKETING CENTRES.

Market	Price Rupees	Per unit of	Per frasila Rupees
Bombay ... ..	24	39 lbs.	21·54
Delhi... ..	55	80 lbs.	24·06
Agra ... ..	57	811 lbs.	24·55
Cawnpore ... ..	64	94 lbs.	23·83
Calcutta ... ..	£1/4/-	2 lbs.	21·87
Rangoon ... ..	230	360 lbs.	22·36
Madras ... ..	16	25 lbs.	22·40
Bangalore, Mysore ... ..	18	25 lbs.	25·20

28. *Retail Profits.*—While the margin of profit secured by the wholesale side of the trade is not generally insubstantial, a consideration of even greater importance in determining the price paid by the actual consumers lies in the fact that they are separated from the wholesale dealers by a network of retailers, the vast majority of whom are petty traders handling very small quantities of clove spice. On the evidence obtained by the purchase of  $\frac{1}{2}$  lb., 1 lb., or 2 lb. samples of cloves from bazaar retailers in the main centres, it is to be inferred that retail profits are invariably high. To a certain extent such evidence may be discounted by the fact that the purchasers were strangers, and it may be that the well-to-do consumer in a position to purchase such quantities pays a price which includes only a fair retail profit. But the great bulk of consumers deal with the petty shopkeeper and buy "a ha'penny worth" of cloves at a time. For their ha'penny, which in India translates itself into a half or quarter anna, they receive a "pinch" of cloves and not any specified weight or measure. The small shopkeeper does what is essentially a credit business, earning but a bare livelihood from his activities which are carried on in opposition to a multitude of competitors. There must accordingly be forces at work which control the actual quantity of cloves, as well as of other spices, contained in a "pinch," and that quantity must vary to some extent in sympathy with wholesale prices. But in the very nature of this petty trade the response to wholesale price movements must be slow, and the margin of profit taken must be subject to rather haphazard measurements. Any one particular retailer, however often he may replenish his clove canister, may make but a very small sum by way of profit on this particular item of his stock-in-trade; but the multiplication of these small sums must represent an aggregate amount constituting the most important element in the marketing costs existing in the clove trade as a whole.

29. *Import Duties.*—While the costs referred to in the preceding paragraphs are factors of material importance in the conduct of the trade, the fiscal levies to which clove spice has been subject have constituted, especially within recent years, a still more important item in the construction of clove prices in the Indian market.

It is unnecessary to remark that Indian tariff policy is in no way the concern of the Zanzibar Protectorate, and we need hardly say that our comments under this head are entirely in the nature of a detached analysis. Moreover, in any discussion of the fiscal barriers which impede the free movement of cloves to the Indian market it is only fair to recognise that the initial barrier is that established by the Zanzibar clove tax, and it was, perhaps, not surprising to find that the importer regarded the Zanzibar tax in much the same way as he regarded the Indian import duty, that is to say, he looked upon both as resulting in an enhancement of the selling price.

The rate of duty imposed in India on cloves, exhausted cloves, and clove stems was  $7\frac{1}{2}$  per cent. *ad valorem* prior to March 1921, when it was increased to 11 per cent. In April 1922 the rate was further increased to 15 per cent. *ad valorem*, at which figure it remained until April 1931, when it was advanced to 30 per cent. *ad valorem*. In January 1932, as the result of a special surcharge, which is understood to be of a temporary nature, the rate of duty was increased to the net figure of  $37\frac{1}{2}$  per cent. *ad valorem*.\*

\* Empire Preference. The duty on foreign cloves is now 45 per cent. *ad valorem*.

Table X gives a detailed analysis of the history of the rates of import duty collected on cloves imported into India in terms of cash, and the figures shown illustrate the incidence of taxation more effectively than the mere record of percentage increases. In 1921 the actual duty payable per frasila was approximately Rs. 1.45. In 1932, despite the decrease of the general price level, the actual duty payable was a fraction over Rs. 7 a frasila.

TABLE X.  
STATEMENT SHOWING TARIFF VALUATIONS, DUTY RATE AND DUTY PAYABLE ON CLOVES, EXHAUSTED CLOVES, CLOVE-STEMS, AND EXHAUSTED CLOVE-STEMS FOR THE YEARS 1921-32.

Year	Cloves			Exhausted Cloves			Clove-stems and Exhausted Clove-stems		
	Tariff Rs.	Rate %	Duty Rs.	Tariff Rs.	Rate %	Duty Rs.	Tariff Rs.	Rate %	Duty Rs.
1921									
January-February ...	19.375	7½	1.453	6.25	7½	.4687	2.8125	7½	.2109
March-December ...	19.375	11	2.131	6.25	11	.6875	2.8125	11	.3093
1922									
January-March ...	20.3125	11	2.234	6.25	11	.6875	2.8125	11	.3095
April-December ...	20.3125	15	3.046	6.25	15	.9375	2.8125	15	.4218
January-December each year:—									
1923 ... ..	20.3125	15	3.046	6.25	15	.9375	2.8125	15	.4218
1924 ... ..	20.3125	15	3.046	5.00	15	.750	2.8125	15	.4218
1925 ... ..	20.3125	15	3.046	5.00	15	.750	2.8125	15	.4218
1926 ... ..	19.6875	15	2.953	3.4375	15	.5156	2.8125	15	.4218
1927 ... ..	18.125	15	2.718	3.125	15	.4687	2.50	15	.3750
1928 ... ..	16.250	15	2.437	3.4375	15	.5156	2.1875	15	.3281
1929 ... ..	16.250	15	2.437	3.4375	15	.5156	2.1875	15	.3281
1930 ... ..	21.875	15	3.281	3.9065	15	.5859	3.125	15	.4687
1931									
January-March ...	20.3125	15	3.046	5.000	15	.750	3.125	15	.4687
April-December ...	20.3125	30	6.093	5.000	30	1.500	3.125	30	.9375
1932 ... ..	18.750	37½	7.031	7.1875	37½	2.6953	3.125	37½	1.1718

In Rupees per Frasila.

30. *Basis of Assessment of Import Duty.*—It is necessary, however, to explain that here are two independent factors determining the actual cash rate of duty payable in India at any given time: firstly, the percentage rate already discussed; and secondly, the tariff value fixed for duty purposes with effect for the year commencing on the 1st January.

According to the provisions of the India Sea Customs Act VIII of 1878 the value of goods imported represent:—

- (a) the wholesale cash price, less trade discount, for which goods of the like kind and quality are sold or are capable of being sold at the time and place of importation, without any abatement or deduction whatever, except of the amount of the duties payable on the importation thereof; or
- (b) where such cost is not ascertainable, the cost at which goods of the like kind and quality could be delivered at such place without any abatement or deduction, except as aforesaid.

The value of imported goods is required to be declared upon the basis of the above definition, which also provides the usual basis for the assessment of *ad valorem* duties. In the case of certain articles including clove produce the duty is, however, assessed not upon the fluctuating wholesale value at the time of importation, but on a tariff valuation applicable for the calendar year. The tariff valuation for any particular year is fixed after investigations carried out during the latter part of the preceding year, the main factors taken into consideration in reaching an equitable figure being, it is understood, the range of prices which have ruled in the market during the course of the current year of investigation and the trend of the market so far as it is ascertainable.

It is not surprising that in the case of a commodity like cloves, the price level of which is open to substantial short-term fluctuations, a tariff valuation fixed for any particular year is liable to diverge considerably from the wholesale market price, either as that price stands at any given time,

or averages out over the whole year. The present rate of Rs. 7 represents  $37\frac{1}{2}$  per cent. of a duty based upon a tariff valuation of Rs. 18.75 per frasila. Up to the time of our enquiries the actual market value of cloves in Bombay had since the commencement of the year been fairly steady in the neighbourhood of Rs. 14 to Rs. 15 a frasila. Over that period, therefore, the actual rate of duty payable under the tariff valuation system had been nearer  $47\frac{1}{2}$  per cent. *ad valorem* than  $37\frac{1}{2}$  per cent. This circumstance was, of course, entirely adventitious and subject to adjustment in the course of time.

31. *Terminal Tax in Certain Provincial Centres.*—Mention may here be made of the levy, in the shape of a terminal tax, which is imposed at a number of internal centres of importance to the clove trade. The expression "terminal tax" in Indian fiscal terminology means a tax generally levied at a railway station, and collected by the Railway Administration on all goods imported or exported from the station. It is understood that, for reasons of administrative convenience, this tax was substituted for the "octroi" in a large number of municipalities in the United Provinces on the advice of a Committee appointed in 1908, and it has since been adopted by certain municipalities in other provinces. The rates imposed under this levy are not uniform and compared with the present-day import duty are relatively light. In Cawnpore, for example, the tax amounted to 8 annas per maund of 94 pounds.

32. *Effect of the Recent Increases of Taxation.*—The effects of the recent increases in duty have not yet become fully apparent. It may be assumed that, to some extent, their restrictive influence upon consumption has been offset by the considerable fall in average clove prices which has taken place since the year 1922 and which has recently been accentuated by the heavy clove crop harvested in the seasonal year 1931-2. The large crop and low prices referred to had the effect of stimulating the importation of cloves into India under the system of stocking and averaging described in paragraph 12. But in spite of the fact that, owing to these circumstances, clove imports during the statistical year 1931-2 were in excess of average figures, the total imports for the combined statistical years 1930-31 and 1931-2 showed a reduction on the average figures recorded for previous two-yearly periods.

While it would not be safe, on the basis of the figures so far available, to draw any very definite conclusions as to how far the higher level of taxation has tended to limit the field of consumption, it may be recorded that the general impression which we received in the course of discussion with the principal importers and dealers was that the import duties, in combination with the stress of prevailing economic conditions, was greatly hampering the conduct of the trade.

Certain of the clove merchants referred to frankly admitted—or averred—that as a result of the increased taxation they had been compelled to have recourse to more extensive adulteration. That the standard of quality of clove produce marketed in India has deteriorated since the higher duties were imposed is borne out by the figures of adulterant material imported during the year 1931-2. Whereas the average quantity of adulterants mixed with genuine cloves during the decennial period reviewed was 22 per cent., the corresponding percentage for the year 1931-2 had increased to 32 per cent.

#### (vii) ADULTERATION.

33. *General.*—In considering the question of adulteration in the Indian clove trade, it is necessary to guard against preconceptions based upon standards which have been attained in countries where a more exacting commercial code is enforceable, and where conditions make possible a wider control by means of administrative action on the part of Public Health Authorities.

With regard to Public Health control, the present position in India appears to be that there is already in existence a considerable volume of legislation throughout the various Provinces designed to protect the consumer from the more objectionable forms of adulteration, especially as applied to foodstuffs. The scope of such legislation is indicated in the note (included as Appendix B) which the Director-General of Commercial Intelligence and Statistics was good enough to prepare for the information of the mission.

34. Apart from existing enactments it is understood that further legislative measures are contemplated in different Provinces with a view to the more effective control of the evil in one form or another. In this connection we might refer to the recommendations made by the Madras Drugs Inquiry Committee 1930-31, which advocates the establishment of the control of drugs and pharmacy. The evidence submitted to this Committee exposed the extensive and serious exploitation of adulteration practices in the field of drugs and medicines.

The following extracts from the evidence published in the Committee's Report is generally illuminating and not without special interest to the clove industry. It was represented to the

Committee that: "The Indian market is flooded with spurious drugs and chemicals which are certainly cheap, but worthless as medicinal agents. These adulterated and fraudulent products are too numerous to enumerate but the following examples may suffice."

"Essential oils of aniseed, cajuput, cinnamon, chenopodium, cloves, cabels, dill, juniper, nutmeg, peppermint, and sandal were all found to be synthetic and valueless as medicinal agents." Again:—

"We give below a detailed list of oils taken from one of the latest lists received from Bombay and we have compared the prices with foreign imported oils to B.P. quality:—

	<i>Quoted in Bombay List.</i>	<i>B.P. Oil.</i>
Oil of Cloves	... Rs. 1-12 As per lb.	9/6 per lb.

We did not have any chance to see the quality of these oils, what they are like, but their quality can be well judged from the prices which stand against them. These oils are manufactured by certain French, Dutch, and German firms."

A sample of oil sold as "Clove Oil" and purchased by the mission in Delhi was sent to the Government Chemist, Zanzibar, for analysis. The report of the Government Chemist is included as Appendix C.

35. To define the present position as we understand it, the adulteration of genuine cloves by means of an admixture of exhausted materials derived from clove produce may be carried on in India without infringement of the law, and compared with other forms of adulteration commonly practised does not constitute a serious menace from the public health standpoint. We do not therefore think that it would be advisable to anticipate that, within a measurable distance of time, any effective control of clove adulteration in the Indian markets is likely to result from administrative action following upon the enactment of more exacting public health legislation, especially as, in a vast country like India, progress in this direction is faced with peculiar difficulties.

In the absence of internal control a number of the Indian clove dealers will continue to exploit a tolerant consuming public by resort to the practices described. Adulteration must, accordingly, be regarded as an inevitable feature of the trade unless it is found possible to impose control through agencies other than Indian agencies.

36. *Trade attitude to practice.*—The foregoing observations imply that the adulteration of cloves as practised in the Indian spice trade is necessarily detrimental to the interests of the Zanzibar clove industry. There is, however, the point of view that, under the peculiar conditions which regulate the conduct of Indian trade, the practice is in fact beneficial to the clove trade in India and Zanzibar. While most of the dealers we interviewed professed to be opposed to the practice, and while some appeared to be definitely antagonistic to it, there were others who argued forcibly the case in its favour.

In support of the case for adulteration, it may be advanced that the practice has always been a feature of the Indian clove trade. Before the War, when large supplies of spent cloves—particulars of which are shown in Table XIV—were obtained from Germany and elsewhere, it was extensively practised. Nevertheless the consumption of genuine cloves in the Indian markets has continued to expand. It is argued that such expansion, however limited, would not have materialised unless adulteration had operated advantageously.

A further consideration is that India is essentially a "price" market. If, as it has been proved in regard to other articles, business is most open to expansion when the price of a commodity is reduced to a point suitable to the restricted purchasing power of the mass of the population, does it not follow that the judicious admixture of cloves and exhausted material, by permitting a lower selling price, must tend to increase the trade in clove produce?

Finally, it is pointed out that the exhausted cloves and clove stems used for adulteration have, in the past, been of Zanzibar origin. It is a fair assumption that the market created for exhausted cloves has encouraged the distillation of clove oil and the sale of cloves and stems for that purpose. There is thus established an economic cycle of utilisation in clove produce in which one market lends support to another and nothing is lost.

37. The case against adulteration requires no elaboration except from the exclusively business point of view. And even from the business point of view it is only the peculiar conditions prevailing in the Indian market which can give rise to any doubt regarding the desirability of enabling the spice consumer to obtain a clean and well-flavoured clove in the ultimate interests of the trade.

The fact that the consumption of genuine cloves in India has shown a small increase on pre-war figures would appear to be adequately explained by the expansion of general trade and by the increase of population. The argument based upon the importance of the price factor can hardly

be said to hold good in the case of what is primarily a foodstuff commodity which appeals to the public taste because of essential properties which are vitiated in the course of adulteration. The price of the genuine article to the consumer is clearly enhanced not only by the cost of the adulterants—the duty-paid value of which was about Rs. 1,75,000 in the year 1931-2—but also by the manipulated profits which provide the real incentive to adulteration as practised by the trade.

With regard to the point that the Indian spice market lends support to the clove oil market by providing an outlet for exhausted material, there is clearly some force in the contention. But the great bulk of adulterants are now constituted by exhausted stems and their cost is largely made up of freight, other charges, and import duty. So far as the Zanzibar industry is concerned, it would clearly be better business if the amount spent upon adulterants were diverted to the purchase of genuine cloves even if a small reduction in the price of stems was thereby induced.

38. *Control.*—Assuming that adulteration practices do react detrimentally upon the clove trade in India, are there any means of controlling the evil within the reach of the Zanzibar industry? We must frankly confess that we are unable to suggest any practicable measure which could be relied upon to achieve this purpose. Were alternative agencies of distribution available in India and were the Zanzibar exporting interests more highly organised and more liberally financed, the supply of clove spice to the Indian market in small sealed packets prepared prior to export might very well solve the problem. It is perhaps not too much to hope that, however impracticable at present, a solution may ultimately be found in this direction.

The development of clove oil distillation in Zanzibar might have some immediate effect through restricting supplies of adulterants. It would, however, be dangerous to look for any effective control of adulteration by closing existing sources of the supply of adulterants. For one thing, supplies of clove produce adulterants would almost certainly be forthcoming from other sources. For another, there is no justification for the assumption that, in the event of supplies of clove produce adulterants being cut off, other if less suitable forms of adulteration would not be resorted to.

If, as we have been driven to conclude, the Zanzibar clove industry is powerless to take effective action to prevent the adulteration of its produce in the Indian market, the question inevitably arises as to whether in relation to this particular market, the export requirements imposed by the Produce Standardisation Rules published under The Agricultural Produce (Export) Decree 1929 operate to the advantage of Zanzibar. On the face of it, there appears to be no point in Zanzibar shipping to India cloves bulked to a standard of purity that merely facilitates the practice of adulteration. This aspect of the question invites consideration of the problem of grading.

#### (viii) GRADING.

39. *Effect of Export Control in Zanzibar on India Trade.*—Prior to the imposition of the Rules published under the Agricultural Produce (Export) Decree 1929, there were three qualities of cloves known to the Indian market viz: (1) McClellan, (2) Zanzibar, and (3) Pemba. McClellan quality, the high-grade article produced chiefly by the Government Plantations, was available only in small quantities, but to the extent of these supplies it apparently did satisfy a demand for superior clove spice. It was sold at a premium of about Rs. 1 per frasila as compared with ordinary Zanzibar quality.

The difference between Zanzibar and Pemba qualities was defined by the inferior appearance and larger khoker content of the latter, which sold at a discount regulated by these factors as they varied in different parcels and during different seasons.

Since the Standardisation Rules have been enforced these different qualities have practically disappeared from the Indian market. The Zanzibar exporter has, it is evident, been satisfied to comply with the provisions of the law by bulking all clove produce for export down to minimum requirements and, in the process, has fully absorbed the better quality cloves available.

Incidentally the establishment of one uniform quality of Zanzibar cloves has facilitated the partial elimination of consignment business previously referred to. Prior to the introduction of export control in Zanzibar, the Indian importer could only safeguard himself from the risk of loss through defects of quality by purchasing consignment shipments open to inspection. He is now able to buy direct from the Zanzibar market under the quality guarantee implied by the Export Rules.

40. *Grades Suitable for Indian Market.*—The problem of grading is one which must be considered in relation to the requirements of all markets and not of one section of the clove trade only. But so far as the Indian market is concerned, we consider that a comprehensive system of grading in Zanzibar would probably be advantageous. This market could take a small quantity of high-grade cloves at a premium which would probably cover the higher costs of preparation involved.



The establishment of a grade I quality, especially if such a quality found a demand in other markets, would reduce the quantity of good quality cloves available for bulking to the present standard quality, say grade II. There would thus be room for a grade III quality which ought to find an outlet both in the Indian market and the clove oil market.

So far as the spice trade is concerned, quality depends almost entirely upon appearance, i.e. upon colour, size, and formation. Grading to a No. 1 quality would not therefore present any insuperable difficulties although it would inevitably have to be established on a rather arbitrary basis.

It would be essential that such a grade should be offered for shipment under an authentic Government Certificate specifying its quality and freedom from admixture. Grade II or standard quality should, we suggest, contain a limited percentage of weathered cloves and be offered for sale under a certificate specifying the quality and the standard of purity laid down. The absence of any reference in the certificate now issued to the percentage of weathered cloves was adversely commented upon by a number of Indian dealers we interviewed.

Before leaving this subject it may be advisable to anticipate a possible objection to a grading system as it would react upon adulteration practices in India. It may be suggested that the establishment of a grading system would tend to increase adulteration as the Indian operator would be able to adapt his methods of mixing to the wider range of qualities. We take the view, however, that the Indian operator will carry adulteration just as far as immediate trading profits make possible and no further, and that the present method of marketing the Zanzibar crop is that most suited to the practice of adulteration.

#### (ix) UTILISATION.

41. *Spice for the flavouring of food.*—As is well known the peoples of India are long habituated to the use of spice in the flavouring of their food. So important a role do spices play in the Indian dietary that in the course of our inquiries we were frequently assured that "people must have spices" and that "everyone uses spices." Such assertions are patently open to qualification. In actual fact the spice-consuming population must be limited by a poverty line which places such a commodity beyond the reach of certain sections of the people. To some extent its use in the remoter districts must be restricted by the lack of communications and organized trade. It has also to be observed that the Burmans are not large spice consumers, their habit being to make use of fish, in various forms, but mostly dried, as flavouring material. The broad fact remains, however, that the Indian public is wedded to the use of spice and regard it as an essential adjunct of their staple foods.

In the preparation of the spice which finds greatest favour in the Indian household, the clove admittedly plays an important part. Its peculiar qualities which ensure a flavour which is obtainable from no other spice, and the "kick" which the strength of its oil content imparts, make it almost an indispensable ingredient in the combination of cardamons, nutmegs, cinnamon, etc., which constitute the mixed spice satisfactory to popular taste. A very material proportion, possibly 75 per cent. of the total clove consumption, is accounted for by its use as ordinary domestic spice.

The well-to-do consumer who purchases his spices by the  $\frac{1}{2}$  or  $\frac{1}{4}$  lb. may prepare them for the table by milling. The culinary equipment of the great bulk of the consumers does not, however, permit such a practice and simple pounding is the normal method of preparation. It is significant that spice mixed prior to sale is not popular in India, partly perhaps for the reason that the individual user prefers his or her own recipe, but also, we were informed, because prepared spice is viewed with suspicion. The latter circumstance suggests that the consuming public, although submissive to the trade in adulterated foodstuffs, is fully alive to the fact that it is being exploited. The use of cloves in connection with the manufacture of chutney and other prepared condiments is limited by the fact that such articles are beyond the reach of the majority of ordinary consumers.

42. *Use and Distribution.*—At this point further reference may suitably be made to the incidence and range of distribution of clove spice. Two factors have already been referred to—density of population and the limiting effect of the low standard of living among all sections of the people. A further factor arising from the fact that the heating properties of spice, and particularly of clove spice, is universally recognized. Generally, consumption tends to increase in the cold weather and to fall off in the hot, a trend of movement in the trade which, incidentally, dealers find it necessary to anticipate in the regulation of their purchases. Similarly, there is a greater demand for cloves in Northern India, with its acute cold season, than in the more equable South, more particularly perhaps as certain districts in Southern India are the centres of spice production on a large scale and have not, accordingly, developed the same reliance upon an imported spice like cloves.

The foregoing circumstances indicate the general lines of clove distribution, but inevitably there are other factors of local significance which, in one area or another, must modify the broadest of generalisations in regard to this aspect of the clove trade. We make these reservations regarding the map—attached to this report—which attempts to indicate, on the basis of the information obtained during the course of our investigations, those districts where the incidence of consumption is most marked.

43. *Betel-nut Pans*.—It is a matter of common knowledge that the inhabitants of India, like those of many other Eastern countries, have from remote times been in the habit of chewing the areca or betel-nut. The nut is prepared for chewing in a wrapper consisting of the leaf of the betel vine, the contents including a primary basis of lime as well as of areca nut. In the more expensive forms the basic contents of the "quid" or "pan" are mixed with cardamoms, nutmegs, camphor, and other similar ingredients. In a word, and as is to be expected in a habit so universal, the pan is prepared in forms designed to meet a great variety of tastes and every purse.

The association of the clove with betel-nut chewing takes for the most part a peculiar form. Its general use is as a pin or fastener for the leaf which contains the preparation. Whether the pin is actually chewed or not depends upon the taste of the individual, and perhaps to some extent upon local habit and climatic conditions. But whether its main function is to serve the purpose of a fastener or of an ingredient, the demand for the clove as an adjunct of the betel-nut pan provides the clove produce of Zanzibar with its major subsidiary market. It would, however, be difficult to form any estimate of the approximate consumption in this particular field of use.

44. *Medicinal Uses*.—The comparatively small extent to which clove oil is imported into India has already been referred to, and it is probable that a considerable proportion of these imports are absorbed by hospitals or by dentists, while part has been seen to consist of spurious preparations containing little of the essential oil of cloves.

Nevertheless the medicinal properties of the clove—as a carminative, stomachic, digestive, and stimulant—are widely recognised throughout India. Cloves, as well as infusions and decoctions of cloves are freely used by practitioners in Ayurvedic medicine. And as a household remedy for ailments such as cold and sore throat cloves, and recipes in which cloves form an essential ingredient, are universally popular. The quantity used for such purposes, although not determinable, is by no means insignificant.

45. *Subsidiary Uses*.—Our inquiries elicited a certain amount of information, occasionally contradictory and not generally open to verification, regarding other uses to which cloves are put, but the main fact which appeared to emerge was certainly that, outside the three major uses already referred to, there exists in India only an insignificant demand for the commodity. The use of cloves as a religious offering may account for a more extensive consumption than we were able to gather, but only to a limited extent. We were informed that cloves were used in the preparation of chewing tobacco. As it is authentically stated that "Jarda"—the tobacco preparation in commonest use throughout India for chewing purposes—is mixed with various spices, such as cardamoms, nutmegs, musk, and saffron, we think that it may safely be presumed that cloves are also introduced, in however restricted quantities. In the same way cloves are used, but again only to a very limited extent, in the preparation of hookah tobacco. Such other forms of utilisation as came to our notice were of such a trivial nature, and appeared to offer so negligible a scope for expansion that this subject of discussion need not be pursued further.

46. *New Uses*.—There would, unfortunately, appear to be little ground for hope that any new field of utilisation will add materially to the demand. We made exhaustive inquiries regarding the possibility of using cloves as an ingredient in cigarettes, and we hope that these inquiries may, at any rate, result in experiments being undertaken. There is, however, a patent obstruction to any wide development in the tobacco field. The taste of the great majority of Indian smokers is satisfied with the "beedie" or the "hooka." Both "beedie" and "hooka" tobaccos are exceedingly cheap and enjoy immunity from taxation. The use of a comparatively expensive flavouring material is hardly likely to gain popularity until there is a material increase in the purchasing power of tobacco consumers.

#### (x) TREND OF CONSUMPTION.

47. *Stability of Demand*.—We are now in a position to examine the trend of clove consumption in India and make some attempt to gauge the future prospects of its markets.

The central fact which has emerged from our review of the trade appears to be the substantial basis of demand provided by India's spice requirements. There appears to be no reason for suggesting that demand lacks anything in the way of stability. Neither a change in the dietary habits of the people, nor a decay of domestic cooking such as has led to a restriction in the use of spice and

condiments in certain Western countries, need be anticipated. Apart from the conservatism of the East, the very nature of the staple foodstuffs in India, consisting as they do of grain and pulses of which rice and wheat are the more important, must ensure the continued use of flavouring such as clove spice.

There is the same stability in the market which depends upon betel-nut consumption. A habit so ingrained in the people, so intimately associated with national hospitality and festivity, and as is commonly believed so conducive to good health, must long survive without impairment.

The same confidence may not, perhaps, be justified so far as the demand depends upon the use of cloves for medicinal purposes. India undoubtedly offers a promising field for the exploitation of those manufactured drugs which have replaced old-fashioned home remedies in certain other parts of the world. Allowance may, however, be made for the conservatism of the Indian in the domestic sphere, and for the efforts being made in certain quarters to secure for the practice of Ayurvedic medicine, which largely relies upon herbal and similar remedies, a wider measure of official recognition. We do not think that there is at present any serious threat in this particular field of utilisation.

48. *The Outlook.*—The chief factor of limitation in consumption has been, in the past, the low purchasing power of the great mass of the population. So far as the immediate future is concerned the operation of this factor is likely to be accentuated by the exigencies of taxation, and by the economic depression. A return to more prosperous conditions—especially if such conditions permit an amelioration of Customs taxation—will remove the threat to the normal development of the trade which at present it would be unwise not to anticipate. A general increase in the standard of living and the continued advance of industrialisation should in due course lead to an expanded consumption of a commodity serving the homely purpose of rendering palatable an otherwise uninteresting dietary.

The trend of consumption prior to the trade depression supports these conclusions, and justifies a measure of restrained optimism as to the future. We have not been able to make an exhaustive examination of pre-war records, but the average annual Indian consumption of clove produce over the period 1910–11 to 1913–14—particulars of which are recorded in Table XIII—represented a quantity of 67,000 cwts. The corresponding average consumption over the decennial period 1922–3 to 1931–2 has been seen to be 72,000 cwts. The latter figure represents an increase of  $7\frac{1}{2}$  per cent. over the former and may be taken as a conservative indication of the potentialities of the Indian market.

#### (xi) PUBLICITY.

49. *General.*—With regard to the possibilities of stimulating demand through the agencies of publicity and propaganda, the Indian market presents a problem of unusual difficulty. In the first place it should be understood that, although we may have used the term "clove trade" so as to imply that it exists as a distinct branch of commerce, cloves are only dealt in as one of the many spices and condiments constituting a section of general bazaar trade. Only one or two of the large operators in Bombay could be described as clove dealers in the sense that cloves represent their predominant commercial interest. Moreover, the spice trade itself is not conducted, even in the main centres, as a self-contained branch of commerce. In Bombay, for example, certain spice merchants are interested in the paint trade, and as a general rule spices are traded in conjunction with grains and general foodstuffs.

It is true that there exist in most centres Indian Merchants' Associations which provide a channel through which contact may be established with dealers in spice as in other commodities. But the absence of an organised spice trade in which cloves constitute a primary interest would make it difficult to enlist commercial support for any undertaking in the way of propaganda.

We are, however, of the opinion that the publication of an attractive brochure might be of some assistance to the sale of cloves in the Indian market. Such a brochure should illustrate the more interesting features of the industry in Zanzibar, describe the different uses to which cloves are put throughout the world and their various qualities and virtues, and include such trade information regarding the exporting end of the Zanzibar trade as would facilitate the extension of direct connections. A publication of this nature would not aim exclusively or even primarily at fostering consumption in the Indian field, but if the undertaking be considered feasible we think it would be worth while to issue translations in Gujarati and Hindi.

#### (xii) COMPETITION.

50. *From other Producing Centres.*—In the past Zanzibar cloves have enjoyed what has practically amounted to a monopoly in the Indian markets and there is no reason to doubt that supplies of exhausted material, drawn from Europe and America, have been almost exclusively

of Zanzibar origin. During the 10 years brought under review the importation of cloves from competing centres of production is shown in Table XI to represent an average quantity of about 1,000 cwts. or 3,200 frasilas, i.e. about  $1\frac{1}{2}$  per cent. of the total consumption of clove produce in India.

It is possible that a proportion of the imports referred to, especially those of Dutch East Indies origin shipped from Java or Singapore, was absorbed by the re-export trade from Bombay. The Dutch East Indies varieties are not yet generally known in the markets. On the other hand, Ceylon cloves are known to dealers in Southern India, while Madagascar cloves are known in most of the larger centres.

It need hardly be said that the absence of serious competition in the past affords no indication of the extent to which competitive clove produce will find its way into the Indian market in future. The Zanzibar product enjoys no special advantage by virtue of any peculiarity of flavour or aroma. In the matter of appearance it is, as now marketed, inferior to the Ceylon, Penang, and Dutch East Indies articles. We will refer in subsequent sections of this report to the possibilities of increased production in these centres. It may here be observed, however, that there exist well-established trade channels through which clove supplies from the countries referred to may reach the Indian markets, so that if increased production does materialise these countries will almost inevitably come into price competition with Zanzibar for the Indian clove trade.

With regard to Madagascar such competition has already been in evidence. Madagascar cloves made their first appearance in the Bombay market in the year 1925-6. In spite of certain alleged defects of quality and of the fact that the business conducted is not, as in the case of Zanzibar clove business, an inter-Asiatic trade, Madagascar cloves have continued to find an outlet in India. In the year 1928-9 imports of Madagascar cloves, either by way of shipments from Madagascar or through Marseilles, amounted to about 8,000 frasilas or approximately 5 per cent. of the clove imports retained for home consumption, and in the year 1930-31 to about 7,000 frasilas or approximately 4 per cent. of the imports for home consumption. It may therefore be assumed that the initial handicaps to the establishment of this connection are unlikely to interfere with an expansion of Madagascar sales to India as soon as the Madagascar output demands a new market. We understand, moreover, that steps have already been taken in Madagascar to eliminate such defects of quality as may hitherto have operated to the occasional disadvantage of its produce.

51. *Production in India.*—No precise information is available as to when the clove tree was first introduced into India but it has probably been cultivated for centuries in certain of the Southern districts. There are no data from which to gauge the extent either of past or present production. While the trade returns indicate a small export of cloves of Indian origin, no information was obtainable regarding their internal movement or the dealers responsible for their shipment abroad. From the fact that cloves of local production are not known in such important centres as Madras and Bangalore it may safely be assumed that what Indian production there is at the present time is on a very small scale.

We were able to ascertain that the clove tree is grown, but not commercially, in the State of Mysore, and that such cultivation as exists is centred in the foot hills of the Western Ghats in the Madras Presidency and more particularly in the State of Travancore.

The Director of Agriculture, Madras, was good enough to furnish the mission with a note regarding a small amount of cultivation which is carried on in the Tinnevely District of the Presidency, and we quote the following extract:—

“There are a few estates near Courtallam in Tenkasi Taluk of Tinnevely district, where clove trees have been planted some years ago and they are now yielding cloves which are disposed of mostly in Tinnevely. A list of such estates is given below:—

1. *Tekkumalai Estate.* Owner: Varadarajalu; 4 miles from Courtallam on the Shenbagadevi Road.  
500 to 700 trees: 50 to 100 years old.
2. *Arivikarai Estate.* Owner: The Raja of Ramnad;  $\frac{3}{4}$  mile from Courtallam on the same road (above). In Ramanathapuram.  
3 trees: 50 years old.  
10 to 20 trees: 5 to 10 years old.
3. *Oodetram Estate.* Owner: Akilandam Pillai of Ilanji on the way to Five Falls Road; 4 miles from Courtallam.  
20 trees: 50 years old.  
30 trees: 5 to 10 years old.

4. *Chinna Ramakal Estate*. Owner: Muthukumara Pillai of Ilanji.  
3 trees: 60 to 70 years old.
5. *Periya Ramakal Estate*. Owner: Metapa Mirasi Pillai; 3½ miles on Western side of Courtallam.  
30 trees: 70 to 100 years old.

The trees are found to grow well in situation at about 1,500 feet above sea level. Pits are dug 3 feet square and 3 feet deep at distances varying from 15 to 20 feet. Thus 100 to 150 trees are planted to the acre. The pits are filled with tank silt or fine red earth. Planting is done in June and hand-watered and irrigated from channels by direct flow. The seedlings cost about 1 anna each. The trees begin to yield from 10 to 15 years. The produce from each tree may be estimated at 20 to 30 m.m. (say 40 to 60 lbs.) of green cloves which when dried give 33 per cent. The average yield per acre may be estimated at 1,500 to 2,000 lbs. of dry cloves. The trees are leased at Rs. 4 to Rs. 10 per tree. The value of an average yield may be estimated at Rs. 1,200 to Rs. 1,500.

"The cost of raising a plantation per acre may be estimated at Rs. 1,500 for the first ten years until the trees begin to bear and thereafter no attention is paid excepting maintaining the estate."

While it is true that at present Indian production is not of sufficient importance to interest the more important markets in Southern India adjacent to the areas of cultivation, the fact that it does exist is significant and should not be lost sight of.

52. *Other Competitive Spices*.—We have already referred to the fact that the clove is regarded in India as possessing unique flavouring properties which make it an almost indispensable ingredient in the mixed spice which appeals to popular taste. On every hand we were assured that there is no substitute for cloves. In a restricted sense this claim may, we believe, be sustained. But there is in the Indian markets a large variety of spices which, though less popular than cloves in their appeal to the consuming public, are more attractive in the matter of price and serve the same general purpose. The fact that resort may be had to these cheaper articles must tend to the decrease of clove consumption after a certain price point has been reached and in this sense cloves must be regarded as in competition with other spice products.

#### (xiii) OIL AND VANILLIN MARKET.

53. *Local Experiments*.—The relative unimportance of the market in India for clove oil and vanillin has already been referred to, but it may be of interest to record that experiments in the production of these articles have been carried out in the progressive State of Mysore. The Tata Research Institute in Bangalore—which enjoys in India a status roughly corresponding to that of the Imperial Institute in England—although it has never interested itself in the distillation of cloves, has experimented in the production of vanillin from clove oil. The experiments undertaken, however, failed to establish an economic formula and are not being continued.

The Mysore State Industries have shown a more persistent interest in this field of chemical research. They have made experiments both in the production of clove oil and of clove oil vanillin. With regard to clove oil they have been unable to produce an article promising any success in competition with clove oil imported from Europe. So far they have not met with greater success in their vanillin experiments. But under the conviction that the demand for manufactured confectionery is likely to see a considerable expansion in India, and having regard to the trend of industrial development within Indian fiscal boundaries, they regard the potential market for vanillin as one of material significance. They propose accordingly to continue their experiments in vanillin production, but with special attention to the possibilities of cinnamon oil—a commodity of local production—as the basic raw material. In this connection it may be observed that the Director of Industries and Commerce, Bangalore, Mysore State, asked to be kept in touch with all developments affecting the clove industry in Zanzibar.

In addition to the efforts of the institutes referred to we were informed that certain commercial interests in India have from time to time experimented in the manufacture of clove oil. It is understood that all such experiments have now been abandoned.

## PART III.

## CEYLON.

## (i) EXTENT OF TRADE.

54. *General.*—Cloves represent a very small item in the overseas trade of the Island of Ceylon and constitute a commodity of minor importance in its agricultural production. Inevitably the statistical data for measuring the extent of the trade and of local production are lacking in detail.

55. *Imports.*—Cloves imported into Ceylon are not shewn under a separate classification but are included under a general classification "other spices." An examination of the general classification referred to in relation to countries of origin and unit values makes it possible, however, to arrive at a rough estimate of the cloves imported into the Island. The figures of import thus estimated for the period 1922-1931 are shewn in Table XVI. In addition to these imports a small quantity of exhausted clove stems reaches Ceylon either direct, or in transshipment from Bombay.

TABLE XVI.—STATEMENT SHOWING THE APPROXIMATE QUANTITIES OF CLOVE IMPORTS FOR THE YEARS 1922-31.

## IMPORTS.

Year	Country of Shipment								Totals	
	British India		Zanzibar		France		Madagascar			
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922	194	620	—	—	12	38	—	—	206	658
1923	18	58	—	—	—	—	—	—	18	58
1924	81	259	—	—	—	—	—	—	81	259
1925	36	115	—	—	—	—	—	—	36	115
1926	85	272	—	—	91	291	31	99	207	662
1927	20	64	—	—	—	—	—	—	20	64
1928	11	35	89	285	20	64	—	—	120	384
1929	235	752	—	—	—	—	—	—	235	752
1930	17	54	—	—	—	—	—	—	17	54
1931	125	400	105	336	—	—	—	—	230	736

It may be added that, in so far as Colombo serves as a transshipment port for Zanzibar cloves, no statistical information is available, particulars of the transshipment trade of the port not being recorded in detail.

56. *Exports.*—With regard to the export trade, the returns include a separate classification which distinguishes between cloves of Ceylon production and re-exported cloves. Particulars of the clove exports and re-exports during the period 1922-31 are shewn in Table XVII.

TABLE XVII.—STATEMENT SHOWING THE EXPORTS AND RE-EXPORTS OF CLOVES FOR THE YEARS 1922-31.

## RE-EXPORTS.

Year	Destination						Total	
	Maldives		British India		Other Countries			
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922	27	86	—	—	—	—	27	86
1923	28	90	43	138	—	—	71	227
1924	33	106	160	512	—	—	193	618
1925	46	147	18	58	—	—	64	205
1926	44	141	—	—	—	—	44	141
1927	38	122	—	—	—	—	38	122
1928	42	134	75	240	—	—	117	374
1929	76	243	—	—	—	—	76	243
1930	74	237	—	—	—	—	74	237
1931	71	227	—	—	—	—	71	227

## EXPORTS.

Year	Destination						Total	
	Maldives		British India		Other Countries			
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922	3	10	122	390	—	—	125	400
1923	5	16	30	96	10	32	45	144
1924	—	—	59	189	19	61	78	250
1925	7	22	19	61	23	74	49	157
1926	—	—	19	61	7	22	26	83
1927	7	22	52	166	25	80	84	269
1928	—	—	56	179	11	35	67	214
1929	—	—	515	1648	2	6	517	1654
1930	—	—	85	272	—	—	85	272
1931	—	—	106	339	4	13	110	352

57. *Excess of Exports over Imports.*—

TABLE XVIII.

## SUMMARY OF EXPORTS AND RE-EXPORTS OF CLOVES FOR THE YEARS 1922-31.

(a) Total Exports 1922-31...	...	...	...	...	1,186 cwts.
(b) Total Re-Exports 1922-31	...	...	...	...	775 cwts.
					—
					1,961 cwts.
(c) Total Imports 1922-31...	...	...	...	...	1,170 cwts.
					—
Excess of Exports and Re-Exports over Imports	...	...	...	...	791 cwts.

Annual average excess being 79.1 cwts. pr. 253 fras.

During the decennial period to which Table XVIII relates, the average annual surplus of local clove production in Ceylon as represented by the excess of exports and re-exports over imports amounted to 255 frasilas as under:—

(i) Average annual exports of Ceylon produce	...	...	380 frasilas
(ii) Average annual re-exports of Foreign produce	...	...	249 „
			—
Total of exports and re-exports...	...	...	629 „
(iii) Average annual imports	...	...	374 „
			—
Excess of total exports over imports	...	...	255 „

The foregoing figures indicate that a remarkably even balance has been maintained between the production and consumption of cloves in Ceylon. From the point of view of other producing centres the trade has for the time being little significance; and as an indication of the relative unimportance of this commodity in the general spice trade of Ceylon it may be noted that in the year 1930 the total imports and exports of spice of all classifications amounted to 486,660 cwts. valued at Rs. 102,50,000. In the consideration of this market it is the potentialities of Ceylon as a centre of clove production that invite particular attention.

## (ii) MARKETING.

58. *Foreign Trade.*—As the chief commercial centre of Ceylon, the port of Colombo handles the overseas trade as represented by imports and re-exports of foreign cloves and exports of local production. The cross-movement in the trade arises from the fact that Southern India provides a convenient market for the surplus production, exports to this market tending to exceed the actual extent of the surplus in response to any favourable price movement. We were unable to establish whether this export trade had developed because the high-grade quality of the Ceylon product provides an excellent basis for adulteration or because the proximity of certain Southern Indian ports especially Tutacorin, makes it cheaper for them to purchase from Colombo than from Bombay. Not improbably both factors have operated, but prices quoted in the different markets at the time of our investigation suggested that Colombo is in a very favourable position to supply closely adjacent Indian ports.

The clove trade in Colombo is in the hands of Indian spice dealers whose methods of business are similar to those operated in the bazaars of India. These spice dealers buy outright from Bombay or Zanzibar and sell the commodity, in an adulterated form, to retailers in Colombo and other centres removed from the clove producing areas. They also do a small re-export business to Indian importers in the Maldivé Islands.

It will be observed from Table XVI that occasional shipments of Madagascar cloves, represented by the total of France and Madagascar, have reached this market. Insignificant as these shipments may have been they are nevertheless indicative of the manner in which the Madagascar product is capable of gaining a foothold in the markets which formerly looked exclusively to Zanzibar and Bombay to meet import requirements. As between the clove produce of Zanzibar and Madagascar the material issue here, as in India, is one of price.

59. *Internal Trade.*—The system of marketing the local clove crop is much in line with that prevailing in Zanzibar. The grower has the option of picking his own crop and selling it to the local produce dealer, to whom he may or may not be indebted, or of leasing it under an arrangement which usually secures for himself half the proceeds of the harvest. The local produce dealers, for the most part Moors, are the intermediaries who sell to the retailers in the district towns, or to the wholesale spice dealers in Colombo.

The locally produced article has the advantages in the home market which arise from the Customs duty of 15 per cent. *ad valorem* on imported cloves and from the price premium due to superiority of quality which, at the time of our enquiry, was represented by the difference between 42 cents. per lb. for Ceylon and 40 cents. per lb. for Zanzibar, standard quality. The local producer has also the advantage of cheap transport both by road and by rail to every part of the Island, including Colombo.

It follows that, despite the intervention of the middleman and the money-lender, the Ceylon producer is able to obtain a much more satisfactory price for his cloves than the producer in Zanzibar.

The import business operated in Colombo secures that local prices, subject to the adjustments due to import duty, freight and other charges, and the quality premium, are kept closely in line with quotations in the Zanzibar market. But the retail price, as in India, is much less susceptible to variation and as the chief method of retailing is by the pinch sold for 5 cents., or even 1 cent., retail profits are an indeterminable quantity.

#### (iii) ADULTERATION.

60. In the districts served by the locally produced article there is almost an entire absence of adulteration, although dampness and stem admixture is occasionally met with. It is only in Colombo and in connection with the marketing of the imported article that deliberate sophistication is practised.

There is at present no legislation in Ceylon designed to control the adulteration of foodstuffs, and until such legislation is enacted the evil will certainly continue unchecked. At the present moment the restricted character of the trade does not give this feature of the Ceylon clove market any special significance, but should the export of Ceylon cloves develop as the result of an expansion of local production the position may alter. In the event of expanded production the fact that the better quality of the Ceylon article makes it an excellent basis for adulteration would be fully exploited both in Colombo and in India.

#### (iv) UTILISATION.

61. The uses to which cloves are put in Ceylon are similar to those which account for the bulk of consumption in India. It may be said that, with the exception of the European community all the races constituting the population of Ceylon are addicted to the regular use of spices for the flavouring of curries and other foodstuffs. It is true that there is a greater variety in the dietary of the domiciled Ceylonese than in that of the peoples of India, and it may be assumed that spices, including cloves, are a less indispensable item of the household budget than is the case in the sub-continent. The general standard of living in Ceylon is, however, higher than in India and even during periods when high prices are ruling cloves are rarely beyond the reach of the bulk of the population.

In the preparation of the betel-nut "pan" the clove plays the same role here as in India, and the habit of chewing has a similar prevalence.

The medicinal value of the clove is widely recognised throughout the Island and is in common use as a household remedy and as a stand-by of Ayurvedic medicine, Ayurvedic practitioners being among the largest purchasers of cloves from retail dealers.



Ceylon does not appear to offer any new outlet in the field of utilisation, and it may safely be assumed that any increase in consumption resulting from the exploitation of a new local market would tend to stimulate local production rather than benefit import business.

(v) LOCAL PRODUCTION.

62. While the trade returns record the exports of Ceylon cloves to foreign countries, there are no statistical data regarding the local output or the areas planted under clove trees. The extent of local production cannot therefore be measured and indirect evidence on the subject is somewhat contradictory.

The facts regarding utilisation suggest that the domestic consumption of cloves in Ceylon, with its population of over five millions, must be considerable. Approaching the question from this angle, one authority who undertook enquiries on behalf of the mission estimated that about 1,000 cwts. or 3,200 frasilas of cloves are required annually to satisfy the local demand. This estimate reflects a per capita consumption corresponding very closely to that existing in India, and the general character of the trade and of consumption suggests that this figure must be fairly near the mark.

A local consumption of 3,200 frasilas, added to a net surplus for export of 255 frasilas, places Ceylon production at an average figure of 3,455 frasilas per annum. Such a production would imply that there are about 17,000 bearing clove trees throughout the Island.

The information in the hands of the Agricultural Department, inevitably based upon reports lacking in detail but obtained through Agricultural officers in close contact with the cultivators, did not appear to bear out the existence of so extensive a cultivation. And our enquiries regarding the stocks handled by the wholesale dealers also appeared to establish that the arbitrary figure of 3,200 frasilas as representing local consumption is definitely on the high side.

Whether the actual extent of production required to meet local demand reaches 3,200 frasilas per annum or is represented by a somewhat smaller figure, the significant feature of the position is that any expansion of output will leave a larger surplus available for export to India or to other markets now dependent upon Zanzibar as a chief source of supply.

(vi) ASPECTS OF CULTIVATION.

63. In a note prepared for the mission, the Director of Agriculture, Ceylon, gives the following particulars regarding the history and cultivation of the clove tree:—

“Cloves were introduced into Ceylon probably about 1830, a century ago. A small grove of about seven trees was established in the Royal Botanical Gardens about this time and another of twenty trees some years later. The Report of the Director, Royal Botanical Gardens for 1873 stated that the tree was bearing abundantly at Peradeniya. The first trees were then 43 years old. In 1883 it appears from a brief statement made by the Government Agent, Central Province that clove plants were distributed to headmen throughout the Kandy district and these had been established successfully in certain divisions. This would account for the presence of some 85 trees, about 48 years old, in the Harispattu division in which at the present time some three hundred trees in all have been enumerated. Cloves are also found around Gampola and to some extent in Dumbara.

“It would appear that a first consignment of cloves was forwarded to the London market in 1882. About this time it is probable that cloves were introduced into the Ratnapura district where 200 trees interplanted in tea are now to be seen on Allerton Estate, Rakwana.

“Cloves do not appear to have been planted systematically as a crop. Trees have been indiscriminately planted and are not found in compact groves.”

In spite of the casual nature of existing cultivation there is, at any rate in the Kandy district, evidence of a growing interest in the clove tree among a number of the Sinhalese small-holders. This interest has been stimulated by the serious fall in the prices of other agricultural products and the comparative immunity hitherto enjoyed by clove prices. With produce prices at levels recently ruling the clove crop is one of the most profitable harvested from the peasant gardens in the district and an extension of planting is generally anticipated.

We were informed that in one area a block of 1,000 trees was in existence and in one of the small holdings which we visited between 100 and 200 young trees had been established. The trees had been obtained as seedlings at a cost, it was stated, of one rupee per plant. Although planted among a variety of other trees such as cocoanuts, mangosteens, rubber and cocoa, the clove trees appeared to be well-tended and in a healthy condition. This cultivator had shewn the enterprise to clear

existing cultures in order to make room for his clove seedlings, and although he was no doubt an exceptionally progressive type of small-holder, we formed the impression that in the matter of energy and practical training in agriculture his class as a whole is very much in advance of the average Zanzibar producer.

64. If the aptitude of the Sinhalese small-holder makes him potentially a formidable competitor to the Zanzibar clove grower, there would appear to be no impediment to extended cultivation on account of soil and other conditions affecting the growth of the clove tree. Reference has already been made to the excellent quality of the cloves produced. In size the flower-buds are rather smaller than those of Zanzibar, but in formation and colouration the Ceylon product is the better. The trees we inspected seldom showed signs of disease, and although more elongated than the usual Zanzibar type and characterised by an absence of lower branches—possibly removed to facilitate cultivation—their average yield appeared to approximate closely to that obtained in the Protectorate. It is of interest to record that one tree which we saw—obviously of a considerable age but in excellent condition—had, according to its owner, yielded as much as 1,000 lbs. of green cloves in a season. The stems are small, closely resembling the stem of a cherry, and at present are never marketed except occasionally when the unstemmed clove is offered for sale.

It may be added that in the Kandy district the clove tree does well at an altitude of some 1,600 ft., and some fifty miles or so from the sea, proximity to which has been held to be essential to successful cultivation. These conditions may account for the slowness with which the trees reach the bearing stage, 12 to 15 years being the usual period required. Recent planting does not therefore entail a serious threat of early competition from an extension of the Ceylon output, and our general impression is that the interest now being shown in the crop will only be sustained by a persistence of the present price relationship of cloves and of the other products cultivated by the Ceylon peasantry.

## PART IV.

## BRITISH MALAYA.

## (i) EXTENT OF TRADE.

65. The general character of the clove trade in British Malaya is of some complexity. Penang a field of cultivation for over a century, has a small export of cloves of local production as well as a small entrepot trade in cloves of foreign origin. Singapore has, within recent years, figured as an important clove entrepot and still operates as a distributor on a reduced scale, but with a diversity of connections. The overseas trade is concentrated entirely in these centres, from which there are also drawn the supplies required to meet the needs of the local market.

The total overseas trade handled at Penang and Singapore during the decennial period 1922-1931 is shown in Table XIX. Over the period referred to the combined imports averaged about 19,400 cwts. or 62,000 frasilas and the combined exports 19,100 cwts. or 61,000 frasilas. Roughly 90 per cent. of this trade was represented by cloves of Zanzibar origin. Owing, however, to the conditions which now govern the redistribution of cloves from this area, the figures for the past ten years have little significance as reflecting the present position of the Malayan market or its potentialities. A correct appreciation of that position can only be obtained by a detailed examination of the trade conducted at Penang and at Singapore, each of these centres, although having certain features in common, operating for the most part an independent trade based upon separate commercial connections.

TABLE XIX.

STATEMENT SHOWING THE IMPORTS AND EXPORTS OF CLOVE PRODUCE FOR THE TEN YEARS 1922-31.

Year.	Imports.		Exports.	
	cwts.	fras.	cwts.	fras.
1922	13,780	44,100	14,780	47,300
1923	17,530	56,100	15,600	49,900
1924	19,440	62,200	18,540	59,300
1925	30,690	98,200	29,300	93,800
1926	25,410	81,300	24,880	79,600
1927	34,070	109,000	32,820	105,000
1928	16,720	53,500	18,250	58,400
1929	14,810	47,400	15,220	48,700
1930	15,500	49,600	14,220	45,500
1931	5,750	18,400	7,000	22,400

## (ii) PENANG.

66. *Imports.*—It will be observed from the particulars shown in Table XX that Penang imports from overseas are drawn, almost in their entirety, from Sumatra in the Dutch East Indies and from British India. The imports from Sumatra are the produce of Sumatra, while the imports from British India are the produce of Zanzibar. During the ten years under review imports from Sumatra, averaging 259 cwts. or 829 frasilas per annum, have exceeded those of Zanzibar origin which have averaged 210 cwts. or 670 frasilas per annum. Penang, however, also obtains supplies both of Zanzibar cloves and of adulterants, in the shape of exhausted clove produce, from Singapore, imports from this source not being included in the foreign trade returns. No particulars of the imports from Singapore are available, but there is no reason to suppose that they are extensive. It might perhaps be said that the Penang clove imports from all sources represent Zanzibar and Sumatra produce in about equal quantities.

TABLE XX.  
STATEMENT SHOWING THE IMPORTS OF CLOVES INTO PENANG FOR THE TEN YEARS  
1922-31.

Year	Countries of Shipment.					
	British India (Zanzibar origin)		Sumatra (D.E.I. origin)		Other Countries	
	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922	271.5	868	301.5	964	0.62	2
1923	175.60	562	180.94	579	—	—
1924	282.80	905	154.06	483	7.81	25
1925	628.12	2,010	16.90	54	—	—
1926	567.50	1,816	327.37	1,048	.62	2
1927	26.25	84	123.43	395	—	—
1928	40.31	129	453.75	1,452	—	—
1929	89.06	285	421.25	1,348	—	—
1930	25.93	83	177.50	568	8.43	27
1931	—	—	442.81	1,417	—	—

67. *Exports.*—Particulars of the export trade in cloves from Penang, which during the period 1922-1931 averaged 1,148 cwts., or 3,673 frasilas, are shown in Table XXI, from which it will be seen that regular shipment is in three main directions:—(1) to the United Kingdom; (2) to China, including Hong Kong and Siam; (3) and to Sumatra.

TABLE XXI.  
STATEMENT SHOWING THE EXPORTS OF CLOVES FROM PENANG FOR THE TEN  
YEARS 1922-31.

Year.	Countries of Consignment.									
	United Kingdom.		Hong Kong, China Coast, Siam.		Java, Sumatra and Islands Dutch East Indies.		U.S.A.		Other Countries.	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922	325.93	1,043	398.43	1,275	348.12	1,114	—	—	5.93	19
1923	572.50	1,832	409.06	1,309	355	1,136	—	—	66.56	213
1924	514.06	1,645	954.37	3,054	184.09	589	—	—	—	—
1925	105.31	337	354.37	1,134	627.10	2,007	—	—	—	—
1926	606.87	1,942	374.37	1,198	250.62	802	—	—	10.00	32
1927	530.93	1,699	264.09	845	126.56	405	—	—	30.00	96
1928	851.25	2,724	184.68	591	97.81	313	—	—	441.87	1,414
1929	585.31	1,873	254.06	813	315.31	1,009	—	—	242.18	775
1930	95.00	304	148.12	474	174.06	557	—	—	2.50	8
1931	351.87	1,126	177.18	567	110.93	355	—	—	1.25	4

68. *Surplus of Exports over Imports.*—For the ten-yearly period under review the surplus of exports over imports has averaged 675 cwts. or 2,160 frasilas per annum as follows:—

Average annual exports	...	...	...	1,148 cwts.	3,670 frasilas
Average annual imports	...	...	...	473 cwts.	1,510 frasilas
Net excess of exports	...	...	...	675 cwts.	2,160 frasilas

It has been noted that the import figures do not include a limited quantity of clove produce shipped coastwise from Singapore. On the other hand, the export figures omit a certain quantity of cloves sold in the local market. Ignoring these indeterminable amounts as counter-balancing factors, it may be assumed that the surplus of exports over imports, *i.e.*, 675 cwts. or 2,160 frasilas, represents very roughly the total of Penang production shipped overseas.

69. *Commercial Elements of the Trade.*—The character of the trade comprised by the inward and outward movement of cloves referred to above is best explained by a consideration of the different commercial elements concerned. While in India and Ceylon the overseas clove trade is exclusively in the hands of Indian merchants, in Penang it is shared by British, Indian and Chinese concerns. The British concerns function in one way only. They ship cloves of Penang production to the London and American markets on a consignment basis, usually on behalf of Chinese dealers. Chinese dealers are themselves exporters of Penang cloves to Hong Kong, Siam and other ports on

the China coast with which they have established trade connections. This branch of the export trade is, however, supplemented by an export of Sumatra cloves which may either be shipped as such or, more probably, as Penang cloves. While we were able to establish that Penang and Sumatra produce are bulked by these dealers, it was not possible to determine to what extent or whether the bulked article was sold exclusively to the China market. The price premium enjoyed by Penang cloves no doubt adds to the profit accruing to the trade insofar as mixing is resorted to, while the proximity of Padang and Boenkolen, the clove centres in Sumatra, and their commercial interests with Penang, through Chinese channels, explains the movement of cloves from Sumatra to Penang.

The Indian merchants interested in the trade have, as a rule, Bombay connections and deal almost exclusively in Zanzibar cloves drawn either from Bombay or Singapore. They handle Zanzibar standard quality cloves, adulterated cloves and exhausted material. In addition to supplying part of the local market they export to Sumatra, the chief importing centre there being Acheen. The Acheen importers are Indian dealers and this branch of the clove business, which has no doubt grown from the old-established trading connections between Acheen, Penang and Rangoon and the presence of Indian labour in Sumatra, accounts for the reverse movement of cloves between the two centres.

70. *Direction of Trade.*—The main features of the overseas trade of Penang during the ten years under review, as they emerge from the foregoing examinations, are:—

- (i) Exports of local production have averaged about 2,160 frasilas of which nearly 70 per cent. has been taken by the London market.
- (ii) An export trade to Siam, the China coast including Hong Kong, comprised partly of locally produced cloves, but for the most part of re-exported Sumatra cloves, the total of which has averaged 1,120 frasilas per annum.
- (iii) An import trade in Zanzibar cloves averaging about 670 frasilas per annum which in an adulterated form are sold to the local market or re-exported to Sumatra.

71. *Quality and Price.*—The factor of quality and accordingly of price in relation to the trade as it divides itself into these main channels is significant. At the time of our enquiry the prices quoted for the Penang, Sumatra and Zanzibar commodities were as follows:—

. Per frasila of 35 lbs.		
<i>Penang</i> (1st quality)	<i>Sumatra</i> (average quality)	<i>Zanzibar</i> (via Bombay)
Rs. 20·40	Rs. 13·94	Rs. 8·17

The premium enjoyed by Penang cloves, although dependent upon the great excellence of their quality, especially on an appearance test, would seem to arise partly from the fact that they serve a small specialised market. We are unable to believe that, in the larger markets upon which the Zanzibar industry depends, anything like so substantial a premium would be obtained. Sumatra cloves, less attractive in colour and uniformity than those of Penang production, are nevertheless of excellent quality. Both Penang and Sumatra cloves find a market in Hong Kong, Siam and other Chinese markets, which are prepared to pay for high grade cloves. The Zanzibar commodity in the adulterated form in which it is largely marketed relies upon its apparent cheapness and the existence of a class of dealers and retailers who exploit a very limited field of consumption, which a narrowing of the price premium enjoyed by the Penang and Sumatra commodities would certainly tend to reduce. Indeed, as the import figures suggest, there is reason to suspect that the market for Zanzibar cloves is already losing ground.

The elimination of adulteration as applied to Zanzibar cloves would no doubt introduce an element of stability into the existing market for Zanzibar clove produce. In order to compete in the select London market, supplied by Penang cloves, and also in the China markets, supplied by Penang and Sumatra cloves, Zanzibar will have to offer a very much superior article to that represented by the present standard quality. The Penang trade may not be a large one but its ramifications certainly point to the necessity of improved cultivation and preparation, and the establishment of grading on the part of the Zanzibar industry.

72. *Other Aspects of the Trade.*—Trade practice as it affects the local clove industry will be referred to at a later stage of this report, but it may be noted here that both clove stems and mother of cloves are exported to Hong Kong and that prices obtained for these commodities appear to be higher than those secured by Zanzibar exporters. In the case of stems the question of cleanness may account for the price difference.

Although Madagascar cloves are not at present imported, Marseilles quotations are received by the Indian dealers and there is no reason to suppose that the Madagascar product would be unacceptable to the class of trade which supports the Zanzibar industry.

It may be added that the fact that Penang is a free port has contributed to its ability to share with Singapore the re-distribution trade in clove produce which is centred in Malaya.

## (iii) SINGAPORE.

73. *Imports.*—Particulars of the imports of cloves into Singapore during the ten years 1922–1931 are shown in Table XXII. Average imports during this period have amounted to 19,000 cwts. or 61,000 frasilas per annum and practically the whole of these imports have consisted of Zanzibar cloves and cloves produced in the Dutch East Indies. The Zanzibar cloves, which represent about 95 per cent. of the imports over the period, were drawn partly from Bombay and partly from Zanzibar direct. The Dutch East Indies supplies emanated from the various centres of production in the East Indies archipelago.

TABLE XXII.  
STATEMENT SHOWING THE IMPORTS OF CLOVES INTO SINGAPORE FOR THE TEN YEARS 1922–31.

Year.	Countries imported from.									
	*British India.		†Other British Possessions.		‡Hong Kong.		§Dutch East Indies.		Other Countries.	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922	12,589.06	40,285	130.93	419	—	—	496.24	4,158	1.25	4
1923	14,536.87	46,518	2.50	8	241.56	773	2,362.49	7,560	52.18	167
1924	17,983.75	57,548	59.68	191	40.00	128	520.93	1,667	400.00	1,280
1925	29,703.75	95,952	—	—	101.87	326	216.87	694	—	—
1926	13,176.56	42,165	9,935.00	31,792	—	—	1,397.80	4,473	2.50	8
1927	4,279.68	13,695	29,058.75	92,988	—	—	543.73	1,740	9.67	31
1928	48.75	156	15,750.62	50,402	11.87	38	405.26	1,297	—	—
1929	728.43	2,331	12,949.75	41,436	—	—	624.36	1,998	—	—
1930	—	—	17,791.56	47,333	—	—	495.30	1,585	—	—
1931	1.25	5	4,625.31	14,801	—	—	684.68	2,191	—	—

\* Zanzibar origin.

† From Zanzibar.

‡ From Sumatra, Celebes and Molloccus and other Dutch East Indies Islands.

|| Origin doubtful.

74. *Exports.*—It will be seen from the particulars shown in Table XXIII that the clove exports from Singapore have averaged about 17,900 cwts. or 57,300 frasilas per annum. The bulk of this trade has been directed to two main channels—Java and the China coast, the former having taken 87 per cent. of the total export over the period reviewed. Apart from these markets, small quantities have been shipped to Sumatra and other of the Dutch East Indies Islands, or re-distributed in what appears to be a somewhat fortuitous manner, over a wide area including the United Kingdom and the United States of America.

TABLE XXIII.  
STATEMENT SHOWING THE EXPORTS OF CLOVES FROM SINGAPORE FOR THE TEN YEAR 1922–31.

	Countries of Consignment.							
	Java.		Sumatra and other Dutch East Indies Islands.		Hong Kong, China Coast, Siam.		Other Countries.	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922	12,303.12	39,370	144.37	643	863.43	2,763	361.25	1,156
1923	11,300.00	36,160	145.00	454	1,540.00	4,928	1,214.37	3,886
1924	16,098.12	51,514	174.37	558	472.50	1,512	131.87	422
1925	26,571.25	85,028	229.06	733	1,083.75	3,468	331.56	1,061
1926	20,319.06	65,021	145.00	464	2,555.31	8,177	620.31	1,985
1927	28,785.93	92,117	230.93	739	1,827.18	5,847	1,024.37	3,278
1928	14,878.43	47,611	152.18	487	555.00	1,776	1,107.18	3,543
1929	11,835.62	37,874	169.06	541	1,308.75	4,188	495.00	1,584
1930	12,342.18	39,496	115.62	370	806.56	2,581	562.81	1,801
1931	1,942.81	6,217	122.50	392	3,377.18	10,807	887.18	2,839

75. *Surplus of Imports over Exports.*—During the ten years 1922–1931 the excess of imports over exports has represented an average quantity of 1,000 cwts. or 3,200 frasilas per annum as follows:—

Average annual imports	...	...	18,900 cwts.	60,500 frasilas
Average annual exports	...	...	17,900 cwts.	57,300 frasilas
Excess of imports over exports	...	...	1,000 cwts.	3,200 frasilas

Part of this surplus was probably accounted for by carry-over stocks held in the port at the end of the period under review, and in part by the supplies shipped coastwise to Penang. The balance, the extent of which is not open to assessment, went into local consumption.

76. *Present Position of Trade.*—The tables above referred to indicate that Singapore's entrepot trade in cloves was on the increase until the year 1927, since when it has steadily declined. The rise and fall of the trade is associated with a change of direction in the movement of Zanzibar cloves attracted to the Java market. At the beginning of the decennial period reviewed practically the whole of the imports of Zanzibar cloves were obtained from Bombay, which at that time was able to monopolise the trade by reason of its shipping connections and commercial relationships with the port. The position altered in the year 1926, when Zanzibar was brought into direct steamship communication with Singapore. Thereafter the Bombay market was gradually eliminated from the trade. A further development was brought about a year or two later by the establishment of a direct steamer service from Zanzibar to Java. This trade is now, accordingly, conducted independently of the entrepot services of Singapore except on occasions when there is a shortage of direct imports in the Java market. Anything in the nature of speculative transactions are discouraged by the fact that the freight rates by Dutch ships between Singapore and Java have been maintained on a gold parity.

Apart from the reduction effected in transport and handling charges and the elimination, first of one, and then of a second intermediary's profit which may be assumed to have benefited the Zanzibar seller as well as the Java buyer—the new routing of these supplies is of some significance in relation to the present position of the Java market.

The diversion of the Zanzibar—Java trade has resulted in the disappearance of the European element from the Singapore clove trade, which is now shared by Indian and Chinese merchants operating in much the same way as their confreres in Penang.

The imports of Dutch East Indies cloves, which are shipped from almost all the centres of Indies production, are largely re-directed to Hong Kong and the China coast ports, the trade being from Chinese to Chinese dealer. The Indian trader who handles Zanzibar cloves, usually in conjunction with exhausted material, supplies his own nationals in the local market, in Sumatra and in Hong Kong.

The total imports of Zanzibar cloves during the ten years 1922–1931 averaged about 18,030 cwts. or 57,700 frasilas per annum and the average exports of cloves from Singapore to Java 15,630 cwts. or 50,000 frasilas. The difference between these two figures, *i.e.*, about 8,000 frasilas a year, affords some guidance as to the quantity of Zanzibar cloves which have been absorbed by the Singapore market for disposal elsewhere during the period referred to, but as heavy stocks appear to have been held at the end of 1931 that figure may be in excess of the actual. For the reasons which apply in the case of the Penang trade the prospect of Zanzibar being able to maintain or increase its share of the clove trade handled by Singapore is not hopeful under existing conditions.

77. *Potential Trade of Port.*—Singapore, despite the advantage it enjoys in the way of communications, free port facilities and cheap handling, cannot be regarded as an essential link in the distribution of clove produce except within a very limited area. A possible development with regard to the movement of Dutch East Indies cloves to China and subsidiary markets is that it will be gradually diverted to direct shipments from the Indies ports. And it is necessary to repeat that if Zanzibar is to compete in those markets an improvement in the quality of the Zanzibar clove is essential. Madagascar cloves have not yet penetrated to Singapore but as in the case of Penang, quotations are regularly received from Marseilles suppliers.

77A. *Complaints Regarding Zanzibar Suppliers.*—It may be observed that in the course of our investigations we received a complaint regarding the practice, commented upon elsewhere, under which Zanzibar shippers have been known to over-value consignments and subsequently refuse to liquidate their indebtedness in respect of the amounts overdrawn.

#### (iv) THE LOCAL MARKET IN MALAYA.

78. The local market in this territory is small and is operated partly from Penang and partly from Singapore, according to the areas of distribution economically served by these centres. Both

in the wholesale and retail sides, the trade is shared by Chinese and Indian merchants. Penang and Dutch East Indies cloves are mostly sold through the Chinese channel and Zanzibar through the Indian channel. The Indian trade is probably the more concentrated, Singapore and Penang providing a considerable portion of the custom secured.

The usual relationships and credit terms as between the wholesale dealer and retail trade are in evidence. Wholesale prices move in sympathy with the Zanzibar market, but the relationship between wholesale prices and the retail price paid by the consumer purchasing his spice by the "pinch" was, as in India and Ceylon, incapable of approximate measurement.

The system of distribution of Dutch East Indies and Penang cloves through Chinese agencies is similar to that of the Indian trade except that the Chinese retailers sell by the weight and not by the undefined "pinch."

#### (v) ADULTERATION.

79. The sale of adulterated food is subject to control in the Straits Settlements under the provisions of an ordinance, extracts from which are quoted in Appendix G, and cloves are among the articles in respect of which a specific standard of purity is required.

Our investigations did not appear to leave any doubt as to the prevalence of a form of adulteration so far as the local trade in Zanzibar cloves is concerned. The actual mixing, though mostly undertaken by the wholesale dealers, is not confined to the wholesale side of the trade, and we encountered one retailer who made up his own mixtures and had stocks of standard quality cloves and of the usual adulterants. We are not competent to express an opinion as to whether the trade referred to is carried on in conflict with the law, but certainly no doubt as to its legality existed in the minds of the traders concerned, who were entirely frank regarding the methods of sophistication resorted to.

#### (vi) UTILISATION.

80. The main use to which cloves are put in British Malaya is, as in the case of India and Ceylon, in the spicing of foods. The chief elements in the population, which in 1931 amounted to 4,385,000, are Malays which constitute 49.2 per cent. of the aggregate, Chinese who constitute 35 per cent. and Indians who constitute 14.2 per cent. The Indians, especially those settled in the urban districts, are responsible for the bulk of the consumption. The Chinese do use cloves as an occasional flavouring for food, but the nature of their diet does not encourage the extensive use of spices. The Malays are equally sparing in the use of cloves. Their staple diet is boiled rice, fish and chillies providing a more popular relish than spice flavouring. It is significant that no imports of cloves are recorded in the trade returns either of the Federated or Unfederated Malay States.

Betel nut chewing is common and among the Indian population the habit gives rise to a small demand for cloves.

The medicinal properties of the clove appear to be generally recognised in Malaya and a small portion of the total consumption is accounted for by this form of use. In this connection it may be noted that a small quantity of clove oil is distilled in Province Wellesley and sold to the local market.

Neither in the direction of distillation nor in other directions does this market hold out any definite prospect of new utilisation. Clove cigarettes are obtainable in Singapore and may be used to a small extent by Javanese immigrants. Attempts to market this commodity have not, however, met with success.

Owing to the industrial depression and the outward movement of immigrant labour it is probable that the present demand for cloves in Malaya has suffered some contraction. A return to more prosperous conditions will no doubt restore consumption to its former level and an improvement in the general standard of living may lead to some increase of consumption, but the potentialities of the market appear to be definitely limited.

#### (vii) CLOVE PRODUCTION IN PENANG AND PROVINCE WELLESLEY.

81. *Extent.*—The export returns of Penang trade do not distinguish between cloves being the produce of the country and those representing the re-exportation of foreign produce. Such records as do exist regarding the areas planted under cloves are of limited value. The absence of adequate statistical data, the complications affecting the export trade, and the indeterminable extent of local consumption makes it impossible to arrive at any reliable approximation of the output of cloves from Penang. Average production for export during the past ten years can, however, hardly have exceeded the 675 cwts. or 2,160 frasilas shown in paragraph 68, as the surplus of exports over imports, but may be taken roughly as being in the neighbourhood of that figure.



82. *Marketing*.—The marketing of Penang cloves is in Chinese hands except in so far as European Houses undertake the consignment of shipments to the London market on a commission basis. The producer disposes of his crop in much the same way as the Zanzibar clove grower. The Chinese produce dealer in the district townships buys the crop on the trees or the harvested crop, the transactions being to some extent complicated by credit facilities previously granted by the dealer.

83. *Preparation and Export Packing*.—The grower who harvests his own crop does not necessarily defer the sale of his cloves until after the drying process has been completed. He may sell them after only three days drying, the dealer undertaking the further drying and the cleaning and grading necessary to bring the produce into marketable condition.

Penang cloves are larger than the Zanzibar variety and are uniform in colour, which is of a light purple brown. The heads are bold and in the best quality only 5 per cent. headless cloves are allowed. The achievement of this high standard quality is the result of good cultivation and of careful preparation on the part of the producer and middleman, and also necessitates careful handling and packing at the point of export. For the London market the packing consists of a wooden container—usually a Swedish match case lined with water-proofed paper—together with an outer covering of hessian cloth. Freight to London is charged on a measurement basis at the rate of Sh. 101/- net per 50 cubic feet. The all-in charges on overseas shipments, including consignees' commission, is approximately \$20 a picul or a little over Rs. 8 per frasila. Overseas marketing is accordingly very much more expensive than in Zanzibar, especially as the demand for Penang cloves at the high premiums secured is seasonal. The harvesting season is usually December-January but the final disposal of shipments to London may not be affected until October when buying takes place for the Christmas market.

#### (viii) ASPECTS OF CULTIVATION.

84. *Historical and General*.—An excellent article on the clove and nutmeg industry in Penang and Province Wellesley, by Mr. F. R. Mason, Agriculture Field Officer, appeared in the Malayan Agricultural Journal for January, 1931. The following extracts from Mr. Mason's article may be quoted:—

“On the founding of Penang in 1786, by Captain Light, the East India Company took steps to break the Dutch monopoly by sending a botanist named Smith to the Moluccas to obtain plants of cloves and nutmegs. Captain Light had already obtained clove plants from Mauritius, but all these are said to have died. In 1800 Smith brought some 5,000 nutmeg and 15,000 clove plants to Penang which were planted in a spice garden established by the East India Company. From this garden were established quite a number of European plantations of some size. In 1805 the spice gardens contained 5,100 nutmegs and 1,625 clove trees and 1,050 seedlings when the gardens were sold for \$9,656. In about 1850 there were reported to be upwards of 30 spice plantations in Penang and Province Wellesley.

“In Penang and Province Wellesley the Chinese, chiefly Khehs, restarted the cultivation of nutmegs and cloves but before it became well established the introduction of rubber into the country placed the cultivations of spice well in the background, with the result that one now rarely finds a plantation of nothing but spices. They have invariably been interplanted with or replaced by rubber.

“Both nutmegs and cloves seem to thrive best in the usual yellow loamy clay found on the hills of Penang and at Bukit Mertajam in Province Wellesley; the more friable the soil the better the trees seem to thrive. It is stated by Oxley that the deeper the tinge of iron in the soil the better the plants seem to grow. He quotes the hard ferruginous gravel found at Pringgit in Malacca where the two spices once thrived remarkably well. The slopes of the Penang hills and the Bukit Mertajam are in places exceedingly steep but are broken up by granite rocks which prevent soil wash to a considerable extent; the usual practice is, however, to build up terraces by making small walls of granite boulders, which are readily available, and filling them up with earth, this serves to support the tree and prevent soil wash.

“In Penang and Province Wellesley cloves and nutmegs are generally cultivated on hills from 200 to 2,000 feet above sea level and are rarely seen on the plains, although it is said that cloves will thrive at lower altitudes provided the water table is well below surface. It is interesting to note that at Bukit Mertajam in Province Wellesley where every available space was once planted with cloves and nutmegs, the limit of cultivation was reached at under 1,000 feet, above which the trees would not grow. It is often said that nutmegs and cloves must be grown within sight and sound of the sea: this may be an important factor as it is very noticeable that on Bukit Mertajam hill the spices are only planted on the side facing the sea, and also that on the Penang hill the best plantations are to be found on the slopes facing the open sea to the

west. It is also interesting to note that few, if any, successful plantations have been established at any distance from the sea.

"In the case of both nutmegs and cloves, plants are raised from seed in beds under shade. The seedlings are transplanted when about six inches tall. Nutmegs are planted about 30 feet apart, while cloves should not be planted less than 20 feet apart. Cloves are very sensitive to water at the roots and any possibility of water collecting in puddles round the young plants must be avoided.

"Manuring is an important item with both nutmegs and cloves and has always received much attention from keen growers. The usual form of manure in Penang and Province Wellesley is fish refuse, but when obtainable, prawn dust is preferred. This is the refuse from the manufacture of the well known Mayal condiment 'belachan.' Manure is applied once a year, usually in a trench dug round the tree following the spread of the branches. A favourite practice amongst the Chinese on Bukit Mertajam is to dig a trench two or three times a year and fill it in with cut 'Lallang' grass.

"Clove trees begin to bear when six or seven years old. Nutmegs do not bear until the seventh or eighth year and sometimes later.

"Cloves are picked by hand but the trees are often of such a height that a light bamboo ladder has to be used to reach the top-most branches. Cloves are fit for gathering when the flower bud begins to assume a reddish colour but before the bud breaks and the small white petals have expanded. The unopen flower buds are then roughly picked over and dried in the sun. The greatest care is necessary in handling the cloves, particularly as they become dry, since the 'heads' very easily become detached and not more than five per cent. of headless cloves is allowed in a sample of first quality. In a good sample the cloves are large, not too wrinkled and a light purplish brown in colour. Too rapid drying causes them to become shrivelled and brittle. Cloves lose about 70 per cent. of their weight in drying."

85. *Economic Factors.*—We would add the following comments regarding the industry in Penang. Soil conditions and the extensive and well-distributed rainfall, contributing to the rapidity with which the clove tree comes into bearing and the high yield per tree, are certainly factors which make for successful cultivation in this area. On the other hand, the problem of soil conservation and the mortality and injury to the trees due to pests present difficulties of a nature with which the Zanzibar producer is rarely confronted.

As is indicated in the extracts quoted above terracing is resorted to for the prevention of soil wash and the maintenance of this terracing requires constant attention. One grower estimated that the cost involved on this account and in respect of general cultivation amounted to 50 \$ cents or about 80 rupee cents per tree per annum.

With regard to damage by pests the species of *Loranthus* familiar in the Zanzibar plantations is very prevalent, while the ravages of a beetle borer (*Chelidonium brevicorne* Schwarzler) and a moth borer (*Paralecta antistola* Meyrick) are extensive. The Chinese cultivators are possessed of the industry and intelligence to cope with these difficulties. The prevalence of insects pests may still be a threat to successful production, but the results of careful tending and picking and particularly of manuring, more than counter-balance the natural difficulties in the way of cultivation.

The few growers whom we interviewed were emphatic in their conviction that manuring was well worth the expenditure entailed. Supplies of prawn dust are freely available at a cost which was estimated at about three rupee cent a lb. The quantity required by a fully grown tree was put at 20 lbs. yearly, younger trees requiring smaller quantities according to the stage of their development.

Slashing and hoeing of the undergrowth is practised, but care is taken not to damage the roots, a circle of carefully cultivated soil surrounding each of the trees.

86. *Revival of Interest in Industry.*—The introduction of rubber into Malaya led to the neglect of spice cultivation; and the collapse of rubber prices is now responsible for a revival of interest in subsidiary crops including cloves. The Chinese gardeners of Penang, who rely upon mixed cultivation and readily abandon one culture for another, are being encouraged, both through official and mission agencies, to plant clove trees. The movement is of recent origin and does not yet appear to have reached any great dimensions. One authority placed new plantings at about 20 per cent. of the trees in Penang and stated that most of such plantings had taken place during the twelve months.

The persistence of this revival of interest in clove production will probably depend upon the movement of other produce prices, particularly that of rubber, and on the extent to which clove prices maintain their recent level. There is little doubt that an increase of the Penang output would lead to over-production in the specialised market which is now prepared to pay the high premiums

obtained for first quality clove spice. An expansion of Penang production or the emergence of competition in the production of high grade cloves from alternative sources of supply might, therefore, be expected to place an entirely different complexion upon the economics of the local industry.

The narrowing of the margin between Penang prices and those obtained for cloves from Zanzibar and elsewhere would no doubt tend to restrict the expansion of cultivation in this centre. It would however be unwise not to anticipate a fairly substantial increase in the Penang output as soon as the results of the planting now being undertaken materialise.

#### (ix) CLOVE PRODUCTION IN THE FEDERATED MALAY STATES.

87. *The Serdang Experiment.*—The revival of interest in clove cultivation in British Malaya is not confined to Penang and Province Wellesley where the industry is already established. A successful experiment in the growing of clove trees has been made at the Government Experimental Plantation at Serdang situated a few miles from Kuala Lumpur, Selangor, Federated Malay States.

The following account of the experiment is extracted from an official article by Mr. J. N. Milsum and Mr. J. L. Greig, Assistant Agriculturists, appearing in the *Malayan Agricultural Journal* for December, 1931:—

“It is generally considered that the clove tree will not thrive at any great distance from the sea. Ridley refers to this and states that clove trees in Penang obstructed from the sea air by the configuration of the surrounding land, soon became badly affected with ‘red spot’ disease (*Cephaleurus mycoidea*, Karsten) and subsequently died (Spices, 1922 page 173). The experimental plantation, Serdang, is approximately 25 miles from Kuala Langat coast which is the nearest open sea. It is, therefore, a matter of considerable interest to ascertain whether the present efforts to grow cloves so far inland will continue to be successful as the trees mature.”

#### PROPAGATION.

The usual method of propagating cloves is by sowing the seeds in shaded beds of prepared soil. At Serdang, success is obtained by sowing the freshly gathered fruit in boxes containing well drained soil under heavy shade.

As is generally known the clove of commerce consists of the unopened flower buds of the clove tree. After flowering, the lower part of the flower together with the calyx swells and develops into a fleshy, one seeded drupe, purple in colour and about an inch long. The period between the opening of the flower and ripening of the fruit is about  $2\frac{1}{2}$  months.

The fruits are spaced about one inch apart and pressed half-an-inch into the soil in a horizontal position. Germination takes place in one month from sowing and, provided the fruits have not become damaged by heating, 75 per cent. germination or more is commonly obtained. When the seedlings have two to three pairs of leaves they are carefully lifted from the seed boxes and transplanted into bamboo pots. The soil employed contains a large proportion of humus with the addition of sharp sand to ensure adequate drainage. The bamboo pots containing the seedlings are then placed on a firm surface under the shade of “ataps” which are raised five feet from the ground to allow for watering. As the seedlings age, the shade is partially removed with the object of gradually hardening off the young plants preparatory to planting in the field. Considerable care is necessary in watering as the clove tree is intolerant of excessive soil moisture during all stages of its growth. Should drainage be inadequate the seedlings lose their leaves and cease growing. With suitable treatment, the young plants attain a height of six inches within six to eight months from germination, and carry about ten pairs of leaves. The seedlings are then ready for planting in the fields.

It may be mentioned here that investigations are now being undertaken to determine whether it is possible to propagate the clove tree by layering the lower branches. In addition several indigenous species of *Eugenia* have been established but so far attempts to graft or bud scions on to the wild stock have proved unsuccessful.

#### PLANTING.

The planting distance adopted is 20 feet by 20 feet triangular, allowing 124 trees per acre. In order to encourage the plants to make rapid growth and become established early, holes 2 feet by 2 feet square and 2 feet deep are dug. The subsoil is removed and replaced by a mixture of well rotted cattle manure, or other organic matter, and surface soiled. After planting, the seedlings are shaded with jungle herbage placed securely round the plant. The most satisfactory planting season is October–November, which avoids the possibility of the plants receiving any check owing to drought. Even with the greatest care, considerable difficulty is experienced in establishing a complete stand of trees and consequently frequent supplying is necessary. During the short wet season, culminating in April, the planted area should be examined and all vacancies supplied with further seedlings.

## CULTIVATION.

At Serdang the original area was planted with cloves in March, 1923 and was about  $4\frac{1}{2}$  acres in extent situated on the lower slope of a hillside facing the east. The soil belongs to the quartzite type being a yellow clay loam with some underlying laterite. As the silt-pitting system was found to be inadequate contour bunds were dug in 1929-30. Subsequently a further three acres were planted in October, 1930. Trenches 2 feet by 2 feet were dug along the contours with two feet stops every thirty feet the soil being placed on the lower side of the pit. In order to bind the bunds together the soil was first beaten down and then cuttings of vetiver grass, *Vetiveria odorata*, were planted along the top of the bunds one foot apart. Vetiver grass is to be recommended for this purpose since it does not spread laterally by means of stolons or runners and so get out of hand, while its vigorous root system tends to bind the soil.

Owing to the fact that the clove tree tends to form a mat of roots just below the surface of the soil, experience has caused two points to emerge. Firstly, competition from vegetation such as cover crops or weeds in the immediate vicinity of the bush is not desirable; secondly, root wounding or disturbance during weeding operations is not tolerated. It is usual in Penang to cultivate the clove tree exposed to full sunlight. In Zanzibar, a light shade obtained by planting *Adenanthera pavonina*, a small leguminous tree, is commonly employed. With the object of obtaining information on this point, half of the area under cloves at Serdang was interplanted with *Adenanthera pavonina*. The shade trees were interplanted between the rows of cloves at a distance of 20 feet by 20 feet. As far as can be ascertained at present the light shade appears beneficial although no improvement in yield of cloves is evident.

The importance of manuring the clove tree has been stressed by previous writers and experience at Serdang bears out fully this recommendation. Individual treatment of trees is necessary rather than stereotyped treatment of the planted area.

Young bushes respond well to an annual application of ammonia dug into the soil in a circular trench sufficiently far from the tree not to disturb the roots. At Serdang, a dressing of three ounces of this fertiliser per tree has resulted in considerably increased growth when compared with bushes receiving no manure. Cattle manure, or well rotted organic refuse, may be applied with advantage as the trees mature. The organic matter employed should in all instances be dug into the soil some distance from the main surface roots of the trees.

## GROWTH.

Measurements of the annual growth of twenty clove trees planted during March, 1923, have been taken since January, 1928, and the following figures show the annual rate of growth for the period 1928-1931:—

Year	Height	Spread
1928	8 ft. 0 ins.	5 ft. 10 ins.
1929	9 ft. 11 ins.	7 ft. 2 ins.
1930	14 ft. 7 ins.	10 ft. 6 ins.
1931	15 ft. 6 ins.	11 ft. 9 ins.

In June, 1931, these trees were examined and the average girth of the trunk one foot above ground level was found to be 1 ft. 5 ins.

## YIELDS.

The period between planting and flowering was from March, 1923 till June, 1927. A small crop was harvested during 1928 although insufficient to warrant yields being taken.

During the year 1930, the individual yields of 20 trees including the green weight of the fresh cloves and their residual weight when dry have been recorded.

Cropping takes place from January to August with the heaviest yield during May and June. The following crop was harvested from 20 trees during 1930:—

Weight of green cloves.	Dried cloves.
230 lbs.	68 lbs.

This gives an average yield per tree of 3.4 lbs. of dry cloves for the year. Allowing 124 trees per acre and 70 per cent. of these in bearing, a yield of about 310 lbs. of dry cloves per acre from seven year old trees may be obtained. According to Ridley (Spices 1c) the average yield of mature trees in Penang was 5 lbs. of dry cloves per annum. The trees at Serdang are as yet comparatively young and should be capable of higher yields as they mature.

The freshly collected cloves are dried in the sun on a concrete barbacue for seven days. In order to ascertain the loss of weight on drying, four samples of green cloves consisting of 200 each were weighed immediately after harvesting, dried on the concrete for seven days and again weighed.

The following table records the results obtained:—

Sample	Green weight	Dry weight	Percentage dry weight
200 cloves	61 grams	18 grams	29.50 per cent.
200 cloves	59 grams	17 grams	28.85 per cent.
200 cloves	58 grams	17 grams	29.30 per cent.
200 cloves	61 grams	18 grams	29.50 per cent.
Average ... ..	59.8 grams	17.5 grams	29.29 per cent.

It will be seen therefore that a loss of weight of about 70 per cent. results upon drying.

#### CONCLUSIONS.

Experience at the Government plantation, Serdang, demonstrates that cloves, contrary to popular belief, will succeed inland, provided that the trees have the advantage of good natural drainage. Cloves of excellent quality are produced and are readily saleable.

Trees commence bearing during the fifth year from planting in the field. Young trees in the second year of bearing yield about 3½ lbs. of dry cloves per season or approximately 2½ piculs per acre per annum.

The loss of weight of prepared cloves at Serdang calculated on the fresh weight of unopened buds is about 70 per cent.

88. *Implications of the Experiment.*—We had an opportunity of inspecting the trees grown at Serdang, the appearance of which gave every indication of healthy and vigorous growth. In particular the young trees, which are reared with less difficulty than formerly since resort has been made to the application of ammonia, gave evidence of a much more rapid development than is common in Zanzibar.

No disease has yet appeared and it has been decided that the use of shade trees is unnecessary and probably inadvisable.

The experiment, having established the possibility of successful cultivation in this area, is being pursued with the definite object of encouraging the local production of cloves. It is stated that there is a demand for clove seeds and that a number of Chinese gardeners have shown an interest in the crop.

We have no means of gauging the extent to which competition may be expected from this centre. As in the case of Penang the course of rubber and other produce prices including that of cloves will to a large extent, be the determining factor in the regulation of planting and subsequent production.

## PART V.

## THE DUTCH EAST INDIES.

## (i) EXTENT OF THE TRADE.

89. *General.*—The traditional commerce in cloves, which played so important a part in the earlier history of the East Indies Archipelago, still survives. And although of very minor significance in relation to the vast agricultural activities of the Dutch territories the cultivation of the clove tree, once confined to the Moluccas, its place of origin, has spread to other centres throughout the island groups comprising the Outer Possessions of the Netherlands dominion.

While these territories have continued to retain an interest in production, the consumption of cloves as spice within their own boundaries has never been of real importance. The Dutch East Indies has emerged as an important consuming centre for the clove trade solely through the development of a market for a type of native cigarette containing a clove admixture. This cigarette market is centred in Java as the seat of manufacture and as by far the most important area of consumption.

The Java cigarette market attracts the volume of clove supplies imported from Zanzibar and absorbs the larger proportion of the cloves of East Indies production. Entirely distinct from this market there exists a comparatively small trade in clove spice. Cloves of local production not absorbed by the cigarette industry are exported overseas or directed to the local market. In addition, there is the small import trade in Zanzibar cloves operated chiefly from Penang and referred to in the preceding section of this report.

90. *Imports.*—The imports of foreign cloves into the Dutch East Indies during the period 1922–31 are set out in Table XXIV. The average annual imports represent approximately 43,580 cwts. or 139,450 frasilas. Owing to the difficulties of determining the source of origin of all the imports transacted through Singapore an exact measurement of the proportion of these supplies which represent Zanzibar cloves is not possible and they include a small quantity of clove stems particulars of which are not available. A close approximation may be placed at about 42,000 cwts. or 134,400 frasilas, representing about 22 per cent. of Zanzibar clove exports during the same years. These figures cannot, however, be taken as indicating the present position of the market which may be more correctly measured by ignoring the abnormal imports for the year 1931 and taking the average figure for the four years 1927–30. During these four years annual imports of Zanzibar cloves reached a figure averaging about 55,000 cwts. or 176,000 frasilas, equivalent to approximately 30 per cent. of Zanzibar clove exports during the corresponding period.

91. *Proportion of Total Imports taken by Java.*—During the period under review the imports of foreign cloves into Java and Madura—as distinct from the Dutch East Indies as a whole—are in accordance with the figures shown in Table XXVI. These imports, the great bulk of which represented supplies absorbed by the cigarette industry, averaged 43,100 cwts. or 137,900 frasilas per annum, an amount which corresponds very closely to the estimated imports of Zanzibar cloves referred to in the previous paragraph.

TABLE XXVI.

STATEMENT SHOWING THE IMPORTS OF FOREIGN CLOVES INTO JAVA AND MADURA FOR THE TEN YEARS 1922–31.

Year	Cwts.	Frasilas
1922	12,676.67	40,565
1923	11,615.32	37,169
1924	16,163.24	51,723
1925	26,106.01	83,539
1926	37,356.66	119,541
1927	59,569.81	190,623
1928	61,123.96	195,596
1929	43,907.02	140,502
1930	59,680.72	190,978
1931	101,618.07	325,178

TABLE XXIV.  
STATEMENT SHOWING THE IMPORTS OF CLOVES FOR TEN YEARS 1922-31.

From	1922		1923		1924		1925		1926		1927		1928		1929		1930		1931			
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.		
Singapore ...	12,931.21	41,380	11,703.12	37,450	16,256.25	52,020	23,268.75	74,460	25,350.00	81,120	27,334.37	87,470	14,693.75	47,020	10,171.87	32,550	11,115.62	35,570	} 99,671.87	} 318,950		
Zanzibar ...	—	—	—	—	—	—	1,309.37	4,190	14,825.00	47,440	30,534.37	97,710	46,403.12	148,490	32,987.50	105,560	48,681.25	155,780				
Great Britain	—	—	—	—	18.75	60	1,128.12	3,610	346.87	1,110	975.00	3,120	—	—	981.55	3,140	168.75	540				
British India	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Penang ...	353.14	1,130	346.87	1,110	150.00	480	600.00	1,920	271.87	870	143.75	460	106.25	340	337.50	1,080	200.00	640				
Hong Kong and China...	—	—	56.25	180	—	—	540.62	1,730	565.62	1,810	50.00	160	—	—	—	—	—	—				
Madagascar and France	—	—	—	—	—	—	—	—	325.00	1,040	656.74	2,100	140.62	450	40.62	130	—	—				
Others ...	9.37	30	28.12	90	59.37	190	134.37	430	28.12	90	267.75	856	—	—	3.12	10	3.12	10				

TABLE XXV.  
STATEMENT SHOWING THE EXPORT OF CLOVES FOR THE YEAR PERIOD 1922-31.

Country	1922		1923		1924		1925		1926		1927		1928		1929		1930		1931	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
Holland ...	—	—	1,435.62	4,594	658.12	2,106	131.25	420	1,958.75	6,268	1,032.81	3,305	2,546.87	8,150	318.75	1,020	717.50	2,296	514.06	1,645
Great Britain	63.12	202	805.00	2,576	—	—	33.75	108	—	—	1,239.37	3,966	1,517.81	4,857	83.43	267	278.43	891	344.68	1,103
Germany ...	—	—	—	—	1.25	4	—	—	—	—	—	—	—	—	101.87	326	—	—	—	—
Sweden ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	40.62	130	—	—	—	—
U.S.A. ...	443.75	1,420	2,191.87	7,014	74.68	239	261.87	838	814.68	2,607	1,144.06	3,661	1,667.18	5,335	943.43	3,019	1,699.06	5,437	2,521.25	8,068
Japan ...	—	—	—	—	—	—	12.18	39	—	—	157.81	505	25.62	82	42.50	136	38.43	123	186.56	597
China ...	—	—	—	—	—	—	—	—	—	—	74.68	239	—	—	—	—	53.75	172	24.68	79
Siam ...	—	—	—	—	—	—	—	—	—	—	31.56	101	—	—	—	—	—	—	—	—
British India	—	—	—	—	—	—	—	—	—	—	—	—	196.25	628	—	—	—	—	—	—
Hong Kong	41.25	132	125.93	403	85.93	275	—	—	—	—	43.43	139	—	—	—	—	101.56	325	33.12	106
Singapore ...	300.62	962	1,674.68	5,359	375.00	1,200	292.18	935	1,419.06	4,541	157.81	505	399.37	1,278	563.43	1,803	450.93	1,443	499.06	1,597
Penang ...	279.37	894	150.93	483	93.12	298	35.00	112	367.18	1,175	143.75	460	590.31	1,889	389.06	1,245	89.06	285	485.00	1,552
Others ...	1.25	4	1.87	6	—	—	—	—	579.68	1,855	—	—	8.43	27	8.43	27	2.18	7	137.18	439

92. *Exports.*—Particulars of the exports of cloves from the Dutch East Indies for the period 1922–31 are shown in Table XXV. During this period the average quantity exported has represented 3,670 cwts. or 11,740 frasilas.

93. *Coastwise Imports of Dutch East Indies Cloves to Java.*—During the six years 1926–31 coastwise imports of locally-produced cloves into Java were in accordance with the particulars shown in Table XXVII. These imports representing an average annual quantity of 9,910 cwts. or 31,700 frasilas were to a large extent absorbed by the cigarette market.

TABLE XXVII.  
STATEMENT SHOWING THE IMPORT OF CLOVES INTO JAVA FROM THE OUTER ISLANDS FOR THE SIX YEARS 1926–31.

Year	Country								Total of Islands	
	Sumatra		Celebes		Moluccas		Others			
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1926*									6,320	20,224
1927*									3,860	12,352
1928	10,040	32,128	3,380	10,816	1,880	6,016	—	—	15,300	48,960
1929	2,320	7,424	3,000	9,600	3,880	12,416	80	256	9,280	29,696
1930	7,720	24,704	2,840	9,088	2,140	6,848	60	192	12,760	40,832
1931*									11,940	38,208

\* Details not available.

(ii) THE KRETEK STROOTJE INDUSTRY.

94. *Description of the Clove Cigarette.*—As the demand for Zanzibar cloves in the Dutch East Indies is, almost in its entirety, dependent upon consumption in the manufacture of native cigarettes, it will be convenient at this point to give some account of what is known as the "Kretek Strootje" industry. The word "Strootje"—literally a small straw—designates a type of native cigarette of Javanese production the covering of which is of dried palm leaf, dried banana leaf, or dried maize leaf. The particular variety of strootje known as the "Kretek Strootje" has a covering or wrapper of dried maize leaf round a filling of native shag tobacco mixed with shredded cloves. The clove admixture, in addition to giving to the strootje an aroma agreeable to the smoker, produces a short crackling sound in imitation of which the word "Kretek" has been acquired.

A modification of the kretek strootje is the kretek cigarette in which a rice paper wrapper is substituted for the maize leaf covering, and this article is now of considerable importance in relation to the more highly organized size of the industry to which the general designation "Kretek Strootje" is applied.

95. *History.*—Little information is available regarding the origin of the kretek strootje habit, although it is of interest to record that its introduction into Java has been attributed to Arabs who settled in the country many generations ago. At the present day, however, there is no trace of any Arab connection, and whatever influence may have originated the habit, the commercial exploitation of the article is of comparatively recent date, not having been actively undertaken until about the year 1916.

By the year 1919 the making of kretek strootjes had already become an established industry of some importance, catering for a market clearly open to expansion. The rapidity of the industry's subsequent development is indicated by the imports of foreign cloves into Java. During the four years 1911–14 the annual quantity of such imports were recorded as averaging 4,260 cwts. or 13,630 frasilas. The figures shown in Table XXVI and referred to in paragraph 91 may be taken as reflecting recent expansion except in so far as the very abnormal figures for the year 1931 are concerned.

The industry originated in the Regency of Koedoes in Mid Java and in its earlier phase was entirely in the hands of Javanese. In the sense that the actual kretek strootje makers are natives and that for the most part the raw materials made use of are of native production, the industry remains essentially a Javanese industry. No sooner, however, had its commercial possibilities become evident than Chinese interest was attracted. Despite the strenuous and occasionally embittered opposition of the Javanese manufacturers, Chinese factories have succeeded in acquiring a very large share of the trade, and the Chinese entrepreneurs must be given the credit for having done much to improve factory methods and extend the area of its operations.



96. *Basis of Organization.*—The cardinal feature in the organization of the industry is that it has been built upon a system of manufacture relying mainly upon cottage labour. This line of development has been dictated by the fact that the kretek strootje is a hand-made product, its tapering form and maize cob wrapper prohibiting the use of machinery. Rather than provide accommodation at the factory for the large number of employees which hand-making entails, the manufacturers have generally preferred to adapt their methods of operations to the use of home labour—an arrangement very congenial to the workers.

The manufacturer functions as a supplier of raw material in its prepared form, as an inspector of the finished product, and as a packer, distributor, and financier. And around the factories, either in the towns where they are established, or scattered throughout neighbouring villages, live the manual workers who are the actual makers of the kretek strootjes. The unit is the cottage home, men, women, and children contributing to the family output.

The system has its disadvantages, particularly on account of the absence of direct factory control. Recourse is had to the employment of "ambons" or contractors who act as intermediaries between the manufacturer and the workers, regulating the supplies of material and piece-work payments under conditions which are characterized by a variety of customs and safeguards.

Attempts have been made by certain manufacturers to break down the cottage labour system and there are a number of factories where kretek strootjes are made in the premises. And in so far as the industry has developed the manufacture of kretek cigarettes, it is independent of the outside worker. In a broad sense, however, the organization of the industry rests upon the foundation of home labour and its future is largely dependent upon the manner in which that system adapts itself to the changing conditions which appear likely to confront the cigarette trade in its wider sense.

97. *Process of Manufacture.*—The first stage is the preparation of the tobacco and clove mixture. Various types of tobacco are used and considerable skill on the part of the blender is called for. Much depends upon the efficiency with which this operation is carried out.

The preparation of the cloves presents less difficulty. After treatment by cleaning and winnowing they are soaked in cold water for about six hours. They are then partially dried in the sun, sufficient moisture being left to facilitate shredding, an operation which is performed by a simple cutting machine, the bladed wheel of which is either mechanically driven or hand turned.

The tobacco and cut cloves are then bulked in a mixing drum—again either mechanically driven or hand turned—in proportions which vary from 3 to 7 parts of cloves to 10 parts of tobacco, the most frequent combination being 5 parts of cloves to 10 of tobacco.

The mixture is then delivered to the workers through the agency of the ambons or contractors previously referred to. Usually the workers must themselves find the maize cob leaves, which are known as "klobot," as well as the thread used for binding the rolled strootje.

In the actual making, the selection of suitable klobot and their treatment over a charcoal heating plate calls for considerable skill, while experienced workers acquire great dexterity in the acts of rolling and threading. These operations having been carried out, the ends of the klobot and tobacco filling are neatly cut and the strootjes, now ready for the factory, are sorted and put up into bundles of 100 in improvised paper wrappers. In family work the usual division of labour requires that the children treat the klobot and bind the thread, the men roll the strootjes, and the women apply the finishing touches.

Received at the factory, the strootjes are examined and sorted according to size, and the pointed ends treated with a weak saccharine solution which imparts a sweet taste to the mouth-piece. The next stage consists of packing, hand-packing by the aid of adjustable wooden frames being the method usually employed. Small paper packets containing 5, 10, 25, or 50 strootjes represent the unit for sale to the consumer, small packets being made up into bundles of 250 or 500 for the retail trade. For delivery ex-factory inexpensive bamboo basket work containers are employed except in the case of shipping supplies, for which wooden boxes are utilized.

The routine of manufacture thus described is general but not of invariable application. As was noted in the preceding paragraph certain manufacturers have the kretek-strootjes made on their own premises.

98. *Retail Distribution.*—The only feature in the distribution of the commodity to the retail trade which calls for notice is the credit system in force, the manufacturer only requiring payment from his various agents for one consignment at the time the following consignment is delivered. The agent grants the same facilities to his various clients, the retailers, so that the stocks held on credit at any particular moment are always large.

Distribution is undertaken mostly by rail but to some extent by motor transport. When the latter form of transportation is used the vans are made to serve the purpose of advertising, particularly in connection with the display of gifts offered under the coupon system recently adopted by some of the larger manufacturers. A more novel form of advertisement is carried out through the services of native operatic troupes who combine propaganda with their normal activities as entertainers.

99. *Markets.*—An all-important matter for consideration is the extent of the markets now held by the industry and the possibilities of finding new outlets for its products, and reference to the map attached to this report will assist in the proper appreciation of this aspect of the kretek strootje's position.

The home of the industry has been noted as being located in the Regency of Koedoes in Mid Java and the capital town of Koedoes remains the largest centre of production. From this point the area of distribution gradually spread. In one direction progress was limited and halting—the markets of West Java have not welcomed the kretek strootje. In the opposite direction however a rapid expansion of territory was achieved and East Java now comprises what is probably the largest field of consumption.

The direction of distribution is indicated by the location of subsidiary manufacturing centres. While Koedoes remains the largest distributor with a wide trade connection, its output has not kept pace with demand. Subsidiary manufacturing centres, usually catering for more localized markets, have accordingly come into existence. These are mostly centred in East Java, the more important being Blitar, Toeloengoeng, Kediri, and Sourabaya.

The relative importance of the Mid and East Java centres of manufacture may be closely gauged from the clove imports into the ports of Semarang and Sourabaya, the former serving the Mid Java group and the latter the East Java group. The figures of clove imports for these two ports are recorded as follows:—

Year	Semarang		Sourabaya	
	cwts.	frasilas	cwts.	frasilas
1924	15,069	48,221	1,048	3,354
1925	23,235	74,352	2,735	8,752
1926	33,129	106,013	4,894	15,663
1927	48,775	155,080	9,738	31,162
1928	45,260	144,832	15,313	49,002
1929	31,924	102,157	11,414	36,525
1930	41,334	132,270	17,388	55,642
1931	72,371	231,587	29,127	93,206

It should be understood that these figures reflect manufacturing activities and not kretek consumption. The Koedoes factories still retain their footing in the East Java markets and the increase of local manufacturing activities in this area is therefore all the more significant.

In the Outer Islands markets of subsidiary importance have been established in Sumatra, Borneo, Celebes, and Bali. In these areas however the penetration has been much less successful and the hold upon the trade which has been established, appears to be rather precarious.

100. The prospect of extending the existing area of consumption does not appear to be hopeful. In West Java progress is impeded by the fact that another type of strootje—the Kawoeng Strootje made of strongly flavoured tobacco without admixture and a palm leaf wrapper—is firmly established in popular favour. In the Outer Possessions where very effective competition is offered by the ordinary manufactured native cigarette, the kretek strootje is handicapped by its inferior keeping qualities, deterioration setting in after a period of three months. It is possibly due, in part, to this defect that no success has attended the efforts of certain progressive manufacturers who have attempted to interest overseas markets in Malaya and India.

On the Dutch East Indies population of 60,730,000, some 51,700,000 inhabit Java and Madura. Mid and East Java, the most populous areas of the island, represent a market of great potentialities. Even if the kretek strootje industry fails to extend its area of consumption there is, in the territory which it already occupies, ample room for development unless, as may well be, other factors interfere with its advance.

101. *Tobacco and Klobot Supplies.*—The emergence of the kretek strootje industry has naturally had a counterpart in the development of tobacco and maize leaf production, and very considerable native interests rely upon the industry's demand for these commodities. The extent of the tobacco and maize cultivation involved will be appreciated when it is recalled that during the five years 1926–30 the consumption of cloves by the kretek market was about 52,000 cwts. per annum, and that tobacco consumption is at least twice, and raw klobot consumption four times as large as clove consumption.

The tobacco used is known, in its cut and prepared condition, as "pepeian" tobacco as distinguished from the native variety known as "garangan" tobacco. The latter type, which is artificially dried, is supplied for the manufacture of the kawoeng strootje previously mentioned. The "pepeian" type is sun-dried and is loose and supple and of a milder flavour than the "garangan" variety.

After preparation and cutting the tobacco is sold by the native cultivators to Chinese dealers who supply the smaller manufacturers and retailers on a credit basis. Some of the larger manufacturers, however, reverse the procedure and, with a view to obtaining the variety of tobacco required for their particular brands, they make advances to ensure delivery.

The klobot is properly a by-product of the maize industry, but so rapidly did the demand for supplies increase that in some districts the klobot output is said to have become of greater importance to the producer than the actual grain. Generally the market has given a new outlook and considerable prosperity to the maize growers in the manufacturing districts, and methods of cultivation have been adapted to serve the most suitable type of leaf, the preparation of which calls for considerable care and experience.

The chief centre of tobacco cultivation is Koedoe, which is well situated for the Koedoes market, but the general area of cultivation is fairly widespread. On the other hand the production of klobot usually centres around the townships where the manufacture takes place. While the tobacco is usually delivered to the manufacturing centres by rail, the klobot—which is traded both by native and Chinese dealers—is delivered by means of bullock wagon transport, convenient on account of the bulky nature of the material. The transport organization so employed adds to the number of natives dependent upon the kretek trade for their livelihood, while the innumerable cart-loads of klobot which frequent the country roads and crowd the village streets of the manufacturing districts gives a picturesque testimony to the extent of the native activity which the development of the kretek strootje industry has called into existence. According to a recent estimate the industry, in its wider sense, provides employment for 200,000 workers, of whom 70,000 to 80,000 are connected with the Koedoes centre alone.

### (iii) THE JAVA CLOVE MARKET.

102. *Dependence upon Zanzibar Supplies.*—Attention may now be directed to the supply of cloves required by the kretek industry and the circumstances which have enabled the Zanzibar product to obtain so large a share of the market.

While the production of tobacco and maize leaf material proved to be susceptible to rapid expansion under the conditions of agricultural economy existing in Java, the nature of the cultivation of a tree crop like cloves made a rapid response to increased demand impossible. Had the industry been dependent upon clove supplies of local production its rapid growth would not have been possible, and it may be surmised that its development would have been impeded but for the fact that the partial abandonment of clove oil on the part of the vanillin industry made overseas supplies available in adequate quantities and at economic prices.

Actually, no very serious attempt was made to meet the industry's clove requirements by an increase of planting in the local centres of production. For one thing, the period of the industry's earlier growth coincided with those years when the agricultural activities of the country, directed mainly to the exploitation of major crops, enjoyed great prosperity. For another, the East Indies clove is not regarded by the industry as entirely suitable for kretek manufacture. Whether it is a matter of oil content, as is generally supposed, or whether some other peculiar property is responsible, the Amboyna clove and those produced in other East Indies centres give a harsher flavour to the kretek than the Zanzibar variety. This defect might not in itself have proved inimical to their use had not the smokers soon become habituated to the smoother taste of the overseas clove. But the consumers' partiality for the Zanzibar flavour once having been established, the industry has been compelled to continue its use as the major clove ingredient. Within definite limits—which are generally placed at a maximum of 25 per cent.—Amboyna and other local varieties may be blended with Zanzibar cloves without serious objection, but the latter product enjoys a preference and for the reasons given above is able to hold the market at competitive prices.

If the respective totals of imports into Java from overseas and from the Outer Provinces be taken as a rough guide to the proportion of locally-grown cloves absorbed by the kretek industry, that proportion may be placed at 15 per cent. of total consumption over the five years 1926-30.

The objection to the use of cloves of Dutch East Indies production does not extend to cloves of Madagascar origin which have been known in the Java market since the year 1925. The highest figure of Madagascar imports so far recorded is for the year 1927, when a total of 657 cwts. or 2,100 frasilas was reached. The market is well informed regarding the position of the clove industry in Madagascar to which it looks for increased supplies in the future.

103. *The Import Trade.*—The link between the Zanzibar clove shipper and the kretek strootje industry is the importer operating either at the port of Semarang which has been noted as catering for the Koedoes group, or at Sourabaya which supplies the East Java factories. The import trade in Zanzibar cloves is very largely, if not exclusively, in the hands of three large Dutch concerns with extensive commercial interests, and one British Indian firm of good standing. It will be recalled that, except in so far as Singapore stocks are occasionally drawn upon in the event of a shortage, all supplies of Zanzibar cloves are now imported direct from Zanzibar. Purchases are made from competing exporters on the basis of both f.o.b. and c.i.f. quotations and in certain cases shipments are made subject to the conditions of the London Produce Brokers Association's Contract, the Association arbitrating on test samples in the event of a dispute as to quality.

104. *Position of the Importer.*—The importer sells to the larger manufacturers or to the Chinese dealer who acts as intermediaries in supplying the small men in the industry. An essential function of the importer is to participate in the financing of the factories by selling on credit—60 to 90 days are reputed to be the usual terms—and by contracting for forward deliveries. It has been observed that the larger manufacturers make advances against their supplies of tobacco and that the distribution of the manufactured article is operated on a credit basis. Moreover, the factories must carry considerable working stocks of tobacco and cloves both in their prepared and unprepared condition. It is not surprising, therefore, that in so young an industry, the handling of clove import transactions should be controlled by specialists in this type of credit import business. It should be recognized that in the pioneering stage of development the importer did much to foster the industry. And it may be assumed that the element of competition, formerly absent, is now firmly established despite the limited number of concerns participating in the trade. It appears to be the case, however, that in the past the importer, in touch with the growing activities of the kretek industry and well informed regarding conditions obtaining in the Zanzibar market, has been in a very favourable position in negotiating business with the Zanzibar exporter. It may be surmised that had the exporting interests in Zanzibar shown more confidence in the strength of this market, and been better informed regarding the substantial foundation upon which the trade is established, competition for the business offering might have been regulated to the better advantage of the producing industry.

Whether the factory interests will continue to rely for their clove supplies on independent importing agencies, or whether, through the fusion of existing units into larger organizations, they will eventually be enabled to undertake their own import transactions, is a matter of conjecture. One large concern, which owns five factories, has a separate buying organization through which it makes the whole of its clove purchases. At the present time, however, there appears to be no disposition on the part of any of the manufacturers to interfere with the existing system as regards the purchase of their clove supplies.

105. *Quality Requirements.*—Unfortunately the reputation enjoyed by certain Zanzibar shippers in this market has not always been free from blemish. It is undoubtedly the case that before the institution of export control through the standardization rules published under the Agricultural Produce (Export) Decree of 1929, many defective shipments reached Java. The present position regarding the quality of supplies is generally satisfactory, and a point of the greatest importance is that the requirements of this market are successfully met by standard-quality cloves, shipped direct to Dutch East Indies ports.

It should be understood that by "standard quality" we mean a quality which not only complies with statutory requirements as regards admixture and moisture content but is also in a line with requirements as to khoker (i.e. weather-damaged clove) content according to the fair quality standard exacted under the London Produce Brokers' Association contract. In this connection it is as well to record that we received what appeared to be a very legitimate complaint from one importer regarding the quality of a shipment which was supported by a Zanzibar Government Certificate of Inspection as to compliance with the conditions of the Export Rules. Although these conditions had been met, the quality of the cloves was patently defective on account of excessive khoker content,

and the importer was genuinely under the impression that the parcel had been exported in contravention of the Government Rules. Had he been at pains to study the conditions imposed by the rules and printed on the reverse of the certificate, he would have realized that there had been no contravention of recognized trade practice which required adherence to an undefined but generally well-understood limitation of khoker content. We suggested to the importer concerned that if he adopted the practice of purchasing his clove shipments subject to the conditions of the London contract he would be protected from loss on account of such defects of quality, but he expressed himself as indisposed to resort to what he regarded as a cumbersome expedient.

We are inclined to think that the attitude of this importer was not altogether unreasonable. The present standardization rules have accomplished a great deal in improving the quality of Zanzibar clove exports, but they leave a serious loophole for abuse in permitting the shipments of parcels which are defective in quality according to recognized trade standards under the guaranty of a government certificate the purport of which is liable to be misunderstood.

It may also be recorded that certain kretek manufacturers complained that the net weights of Zanzibar bales of cloves were in certain cases falsified by the inclusion of mat-bag cuttings in the original containers. We were unable to verify how far these complaints were justified, but it may be observed that the falsification was alleged to occur only in bales bearing certain specified marks and was not general.

106. *Price Fluctuations.*—There appears to be little doubt that the kretek industry has been developed under conditions which have usually ensured adequate profits both to the entrepreneur and to the clove supplier. Generally clove price fluctuations, no doubt partially smoothed out by the manipulations of the importer, have not embarrassed the industry in the regulation of its selling policy. Nevertheless the short crop harvested in Zanzibar in the season 1928–9 and the consequent period of high prices did have serious reactions upon the Kretek trade.

These high prices which reached a peak figure of 160 guilders per picul, compelled the industry to resort to the use of Amboyna and other locally-produced cloves much in excess of the normal proportion. A tendency to curtail the percentage of clove admixture was induced and the use of stem and alternative flavouring materials encouraged. As a result sales diminished and the industry received its first serious set-back—a set-back from which, in the opinion of certain of the manufacturers, it has not yet recovered. Moreover this experience, not unnaturally, gave rise to uneasiness regarding the industry's dependence upon overseas sources of supply.

At the time of our investigations the view expressed by certain of the larger interests concerned was that an economic price for Zanzibar cloves duty-paid in the Java market was between 60 to 80 guilders per picul. Possibly some of the more substantial manufacturers might be prepared to pay rather more in order to safeguard the reputation of their established brands.

For reasons which are given later we have formed the impression that the kretek industry is likely to encounter progressively intensified competition from the native cigarette industry under economic conditions which at the moment are far from satisfactory. In order to meet such competition a carefully regulated selling policy will be essential. If this view be correct, price stability in relation to the industry's supplies of raw material will be a factor of increasing importance. Violent fluctuations in clove prices must be regarded as endangering the security of this market. Conversely the maintenance of a steady price level will do much to conserve it.

#### (iv) PRESENT POSITION AND OUTLOOK.

107. *General.*—Unfortunately, the present position of the kretek industry and its future prospects are obscure to a point which makes it impossible to venture any assessment of the potentialities of the Java market as an outlet for Zanzibar cloves. We must be content to review the main features of the situation in the hope that future movements in the market will be the better appreciated, and the trend of demand for Zanzibar cloves the more correctly interpreted.

At the outset, it may be advisable to recall that few countries have suffered more severely than the Dutch East Indies from the economic upheaval, as the following figures bear witness:—

*In millions of guilders.*

	1929	1930	1931
Total Imports in Dutch East Indies ... ..	1,166	922	608
Total Imports from Dutch East Indies ... ..	1,488	1,191	802
Total turnover ... ..	2,654	2,113	1,410

All its major products have been seriously affected, and sugar, its primary agricultural industry, has been the most badly hit. The reduction of native purchasing power in the sugar producing areas which are central in Mid and East Java, the districts mainly responsible for the consumption of kretek strootjes, has, accordingly, been of the most drastic nature. Unofficial but responsible estimates have placed the fall of native wages in Java as being in excess of 75 per cent., or from a former level of 65 cents per day to 15 cents per day at the time of our inquiry.

Fortunately, the native agriculturist<sup>88</sup> has been able to fortify his economic position by devoting more of his activities to the production of foodstuffs for family consumption. But on every hand we received testimony pointing to a very material restriction of the liquid cash resources remaining in the hands of those classes of native consumers who include the habitual smokers of the kretek strootje.

These circumstances make it very difficult to give credence to the view, held in certain quarters and apparently borne out by the statistical data available, that the industry as a whole has enjoyed a remarkable immunity from the effects of the general depression. Reference has already been made to the figures of clove imports into Java, which reached a peak figure of 101,618 cwts. or 325,178 frasilas in the year 1931. During the first seven months of the year 1932 the imports amounted to 30,280 cwts. or 96,896 frasilas. Taking the nineteen months, January 1931 to July 1932, the total imports therefore reached a total of 131,898 cwts. or 422,074 frasilas, equivalent to 83,303 cwts. or 266,570 frasilas for a 12 monthly period. The latter figures exceed the previous year's imports by 75,592 frasilas and the 1928 total of 70,974 frasilas, i.e. by 28 per cent. and 26 per cent. respectively. The statistical position does not therefore suggest any decline of consumption. Estimates of cigarette consumption in Java, made available from authoritative sources for the information of the mission, point in a similar direction. These estimates place consumption for the years 1930 and 1932 as follows:—

	1930	1932
Cigars ... ..	46,000,000	30,000,000
Native Cigars ... ..	400,000,000	200,000,000
Kreteks ... ..	13,000,000,000	13,000,000,000
Native Cigarettes of local manufacture ... ..	11,000,000,000	9,000,000,000
Imported Cigarettes ... ..	1,500,000,000	1,000,000,000

These estimates, which it should be understood can at the best only be rough approximations, appear to indicate that the kretek cigarette has succeeded in maintaining its 1930 level of output while competing cigarettes and articles catering for other classes of smokers have lost considerable ground.

108. *Javanese addiction to Smoking.*—In meeting the difficulties created by the economic conditions of the moment, the cigarette industry as a whole appears to have enjoyed a material advantage in the strength of the Javanese addiction to smoking. One experienced observer informed us that out of a wage of say 20 guilders a month, a Javanese would normally spend as much as 3 guilders on cigarettes. With supplies of foodstuffs available from their own holdings or obtainable at very much reduced prices, it may be assumed that even a larger proportion of the cash spendings of the agricultural population are directed to the purchase of cigarettes.

109. *Customs Taxation.*—The kretek strootje industry enjoys an advantage in competition with locally manufactured native cigarettes on account of the lighter incidence of Customs taxation on imported materials. The import duty on cloves—in addition to which the usual statistical fee of  $\frac{1}{2}$  per cent. is payable—was at the rate of 12 per cent. *ad valorem* prior to the 1st of January, 1931, when a 10 per cent. special surcharge was imposed, making the total net duty 13.2 per cent. *ad valorem*. The surcharge was increased to 20 per cent. *ad valorem* as from the 1st of January, 1931, and to 50 per cent. as from the 16th of July, 1932, the actual net duty rates being thus increased to 14.4 per cent. *ad valorem* and 18 per cent. *ad valorem* on these respective dates. The effect of these higher rates was, however, more than offset by the fall in clove prices.

The surcharge imposed upon cloves were of general application, so that the heavy specific duties on cigarette paper were at the same time proportionately increased. The difference in the cost of producing 1,000 cigarettes with paper wrappers and 1,000 kretek cigarette with maize cob wrappers was estimated as being, on account of the import duty on cigarettes paper, equivalent to 40 cents of a guilder while the basic rate only was in force. With the application of the 50 per cent. surcharge, which became effective from the 16th of July, 1932, the estimated difference in cost has been increased to 60 cents of a guilder. This margin is a substantial one with kretek cigarettes retailing at 1 cent for 5 cigarettes.

110. *Proposed Excise Duty.*—The Government of the Dutch East Indies has for some time had under consideration a measure for the imposition of an excise duty at the rate of 20 per cent. of the retail price of tobacco, cigarettes, and cigars. The Ordinance to give effect to the proposed levy was submitted to the legislature in September of the present year (1932) and accepted in principle, subject to the following amendments:—

Amendment (a): that the excise on "strootje" cigarettes be reduced from 20 to 10 per cent. of the retail price.

Amendment (b): that no excise duty be levied on "jekorven" tobacco grown by the natives for their own use or in connection with the cottage cigarette industry.

At the time of writing the Government is reserving its decision regarding the acceptance or rejection of these amendments.\* If the former amendment be accepted, it may be anticipated that the competitive position of the kretek strootje industry will be materially strengthened. The advantage gained would, however, be nullified to some extent if acceptance of the amendment was made the occasion for a further increase in the import duty on cloves, a possibility which was mooted during the course of debate when the Excise Ordinance was under discussion by the legislature. As, however, the intention of the amendment is to protect the native strootje industries, it is reasonable to assume that any increase in the import duty on cloves would be so regulated as to retain in part the benefit accruing from the Excise preference.

It is generally recognized that the effective collection of the Excise duty from the locally-organized kretek strootje industry will be difficult. The mere fact that many of the consumers are capable of making their own strootjes in their own homes suggests a wide channel of evasion. The difficulties of tax collection may therefore damage factory production without actually reducing consumption. And we have to record that in many quarters the view is held that the kretek strootje industry, as such, will emerge from the present period of economic stress with its position in the cigarette market more firmly established. The sense of the amendment to extend preferential treatment in the matter of Excise taxation, whether it be accepted or not, is significant as a reflection of popular sentiment towards a self-evolved native industry, the startling success of which has not failed to impress the Javanese mind.

111. *Other Factors.*—How far sentiment is likely to influence events is an issue which must elude the outside observer, but after allowing for all the circumstances brought under review, we find it difficult to take a definitely optimistic view of the kretek industry's future. To some extent the index of the present rate of consumption as provided by the figures of cloves importation must be discounted. The market is admittedly overstocked so far as clove supplies are concerned. Anticipation of the import duty surcharges led to speculative importation. The continued decline of clove prices during the present season—a movement which was not foreseen in this market—no doubt induced importers to continue buying so as to average down their stock valuations. According to the information we received the present stock position is such that active buying on the part of the Java clove importer is not likely to revive until the commencement of 1933.

Again, while it is no doubt the case that kretek consumption outside factory control may have shown an upward trend as economic conditions have deteriorated, there is no room for doubt that factory output has very seriously diminished. The factories have attempted to meet the difficulties of the present situation by intensified propaganda, with the very probable result that retail stocks out on credit have reached abnormal dimensions. The actual consumption of factory cigarettes may therefore be even smaller than the reduced figures of factory output suggest.

The movement of cloves to the Dutch East Indies during the ensuing six months or so will do much to clarify a position which is obscured by an apparent conflict of evidence, and by a divergence of views on the part of those interested in the trade. We feel, however, that it would be unwise to anticipate that the Java clove market will be able to absorb Zanzibar supplies on the basis of the 1928–31 figures until there is a very decided improvement in the general economic conditions.

112. Taking a long view of the industry's prospects, it would appear that its future prosperity depends largely upon the strength of the hold which this type of cigarette has established among Javanese smokers during the comparatively short period of its serious development. There is an intangible element in what has gone to create the taste for the kretek strootje. The characteristic combination of flavour and crackle which appears to constitute its popular appeal may, or may not, constitute "a something" which will enable the industry to hold its own in the face of any competition it is called upon to meet.

\* Information has now been received that the amendments were rejected.

There can be little doubt that competition for the cigarette market now so largely in the hands of the kretek industry will be severe, and that the manufacturer of the ordinary native cigarette—of the type known to the East African and similar markets, or a modification of that type in which the tobacco is impregnated with synthetic flavourings—will be slow to abandon the hope of ousting the kretek from popular favour. Both in experience and in financial resources the manufacturers of these native cigarettes are the better equipped and have the advantage of handling a machine-made article.

The exigencies of the present situation as it is affected by the increasing burdens of taxation and the restriction of native purchasing power may lead to an expansion of kretek strootje making in the domestic sphere. In anticipation of such a development at least one large manufacturer proposes to put on the market a tobacco and clove mixture packed ready for use. But as soon as more normal conditions return the home-made article will give way to the factory-made and in the long run the prosperity of the kretek strootje industry will stand or fall on the demand of the factory product.

It may be added that the kretek strootje habit is much more prevalent in the rural districts than in the towns. Generally, the urban Javanese, more susceptible to European influences, prefer the ordinary native cigarette as the more "correct" article. Fashion may move slowly from the towns to the rural districts, but invariably it moves in that direction.

113. To sum up. The kretek industry has been and still is a profitable one. Although it has been remarkably successful in weathering the economic storm we are inclined to think that consumption has declined to a greater extent than is apparent from available information in the shape of clove import statistics and estimates of output. There is no evidence that the industry's immediate grip of the markets which it has established is relaxing. No spectacular developments need be looked for. But taking a longer view of the industry's prospects its prosperity must depend rather upon the extent to which the kretek has insinuated itself into the life of the Javanese as an established national habit, than upon its more tangible merits as an article of commerce traded in a keenly competitive market.

#### (v) LOCAL PRODUCTION AND MARKETS.

114. *General.*—Although the trend of agricultural expansion in the Dutch East Indies has been directed to the development of bulk crops, the production of spices such as pepper, nutmeg, cinnamon, and cloves has survived as a somewhat scattered cultivation largely in the hands of native agriculturists. Production is mainly for export and as these commodities, which have figured so conspicuously in the economic history of the country, have so far failed to establish a considerable internal market, it may safely be assumed that there is little likelihood of such a market being developed in the future.

The small local market for cloves spice which does exist depends upon a rather casual consumption in the flavouring of food. The use of cloves for medicinal purposes appears to be general and in certain districts where cloves are grown there is very insignificant trade in clove oil of local distillation.

The internal consumption of cloves for the purposes referred to cannot be measured except as so far as it is dependent upon the importation of Zanzibar supplies through Penang and Singapore, already commented upon as one side of a cross trade of no general importance. As, however, the bulk of local production is either for overseas export or for the Java kretek market, the combined trade in these directions may be taken as an index of the extent and progress of cloves cultivation in the territories.

115. *Exports Overseas and to Java.*—The clove exports overseas and the imports to Java market have been referred to in paragraphs 92 and 93, and the combined movement for the six years 1926–31 was as follows:—

	To Java		Overseas		Total	
	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas
1926	6,320	20,224	5,139	16,446	11,459	36,670
1927	3,860	12,352	4,025	12,881	7,885	25,233
1928	15,300	48,960	6,952	22,246	22,252	71,206
1929	9,280	29,696	2,491	7,971	11,771	37,667
1930	12,760	40,832	3,431	10,980	16,191	51,811
1931	11,940	38,208	4,746	15,187	16,686	53,394

Average for six years 14,374 cwts. or 45,996 frasilas.



In the absence of statistical records it is impossible to assess the extent of the increase over pre-war production, but it may be taken that the gradual spread of cultivation throughout the Archipelago has greatly enhanced the potentialities of production. Some significance must, moreover, be attributed to the fact that output increased to so considerable an extent in the year 1928. It is true that small crops were harvested in the previous year, but the extent of the increase referred to was almost certainly associated with the high prices resulting from the short crop in Zanzibar. The inference is that, normally, picking is not intensive, and that the output from certain areas is capable of expansion when prices are sufficiently remunerative to encourage good harvesting.

116. *Producing Centres.*—The Moluccas are still regarded as the most important area of production. Cultivation is carried on in the old-time "Spice Islands" of Amboyna, Banda, and Makian.

It is to the last-named of these that the clove tree is said to be indigenous and Amboyna, by virtue of the historical monopoly of production it enjoyed in the seventeenth century, gives its name to the clove produce of all the islands which lie between Celebes and New Guinea. Some of the lesser isles, such as Sarparoea and Nussa Laut, are to-day responsible for a larger output than Amboyna, while within very recent years planting has been undertaken in the Island of Ceram.

Next to the Moluccas, Sumatra claims the largest share of the total output. The export of cloves from the Padang district to Penang has already been referred to and there is a certain amount of cultivation in the Benkoelen and Lampong areas.

In Celebes the most important centre is Minnehassa, near Menado, while to a very restricted extent cultivation exists in New Guinea. In Java clove growing has at present no commercial significance.

117. *Marketing Agencies.*—There are no doubt a variety of local trade customs throughout the widely dispersed areas of production referred to in the preceding paragraph, but the Chinese dealer is everywhere the intermediate trader who handles the crop in its movement from the producer to the export or Java market. In Amboyna we found the Chinese trading produce-dealer functioning in much the same way as his Indian prototype in Zanzibar, except in so far as recent experience of falling commodity prices had compelled the former to withhold the credit facilities usually extended to the native agriculturists.

With regard to the export trade overseas, it will be observed from Table XXV referred to in paragraph 92 that 70 per cent. of the exports are shipped to America or Europe, and this trade is entirely in the hands of European houses handling general produce. First and second quality cloves are recognized in the trade, and exporters experience little difficulty in preparing their shipments to the standards required under American and London Contract conditions. There is an absence of deliberate sophistication, excessive moisture content being the most common defect of quality.

The exports directed to Hong Kong and China ports are handled by Chinese exporters and most of the Java trade is transacted through the same channels.

118. *Transport Charges.*—Sea transport presents a difficult problem in the widely-scattered East Indies Archipelago and as the interests of the more remote and less important districts are by no means neglected in the general scheme of maritime organization, it is inevitable that inter-island freight and handling charges are relatively high. These charges constitute by far the largest item in the marketing costs of cloves produce, and the main handicap to Outer Island production with clove prices reduced to their present level.

Macassar is the chief centre of export for cloves of Celebes and Moluccan origin, but shipments are also made from Amboyna and other ports, both overseas and to Java.

The inclusive freight and handling charges on shipments from these ports are as follows:—

(At Exchange rate of £1 = Gs. 8/57.)

	<i>Shillings per 1,000 Kilos.</i>
From Macassar to Europe (in bags) ... ..	254/4
From Macassar to New York (in bags) ... ..	200/-
From Macassar to Semarang (in bags) ... ..	137/1
From Macassar to Sourabaya (in bags) ... ..	116/4
From Amboyna to Macassar (in bags) ... ..	139/5
From Amboyna to Europe (in bags) ... ..	385/-
From Amboyna to Semarang (in bags) ... ..	201/10
From Amboyna to Sourabaya (in bags) ... ..	185/9

So far, therefore, as transport charges are concerned, the Zanzibar industry may be said to enjoy a considerable advantage over the Dutch East Indies competition as it is now located.

(vi) ASPECTS OF CULTIVATION.

119. *General.*—Clove production in the Dutch East Indies is frequently associated with that of nutmegs and mace and about 80 per cent. of these three commodities—which are grouped for certain statistical purposes—are credited to native cultivation. In the Moluccas the clove is entirely a native crop and typical cultivation is seen among the small agriculturists whose clove trees are interplanted with nutmegs and a variety of other crops.

Its wide distribution throughout the Archipelago is a further indication of the adaptability of the clove tree observed in other producing centres, but it is improbable that soil and general conditions are anywhere more congenial than in Amboyna and its neighbouring islands. Contrary to what has been written regarding the great care devoted to the clove tree by the Amboynese agriculturists, especially during the fruiting period, we found that he is content to regard his cloves as in the nature of a forest crop. After planting, which appears to be haphazard enough, the trees receive practically no attention. In a soil which has similar characteristics to that of Zanzibar, but benefiting from a higher and more widely-spread rainfall, the Amboyna clove tree has a vigorous growth, is free from disease, and attains a great age and unusual height. It reaches the bearing state after six to ten years and continues to yield well after passing the century mark.

These general conditions appear to be entirely favourable to economic production, especially as family labour reduces harvesting costs to a minimum.

There are two factors which are adverse to profitable cultivation. Firstly, the strongly-growing trees are marked by an absence of lower branches, and the consequent difficulty of picking is only partially overcome by the use of bamboo ladders. In the second place, periodicity of flowering, possibly because of the lack of cultivation, appears to be less frequent than in Zanzibar and certainly less frequent than in Penang and Ceylon.

We gathered that it was the latter circumstances and the general objection to a crop of irregular yield which have influenced the Amboynese agriculturists in sacrificing their clove cultivation to that of nutmegs, coco-nuts, and other crops of consistent production. The price of nutmegs and mace has suffered a very much greater decline than the price of cloves, but rather significantly no new clove planting has resulted. The nutmeg still holds the field as the more satisfactory crop.

We do not wish to suggest that the lack of interest in clove cultivation, so surprisingly evident in Amboyna, is prevalent in other centres of production, where the attitude of the agriculturists concerned may well be entirely different. The fact that new planting has recently taken place in Ceram has been noted, and with the inevitable restriction of production in major crops it would be surprising if in some of the widely dispersed centres of cultivation greater attention was not being paid to spice cultivation in one form or another. Only a complete survey of all producing centres would make possible a reliable assessment of the probable trend of future production.

## PART VI.

## SUMMARY.

120. During the last decade the territories surveyed in this report have been responsible for an actual consumption of some 102,500 cwts. or 328,000 frasilas of Zanzibar cloves per annum representing about 55 per cent. of the Protectorate's exports. These figures do not, however, reflect the present importance of this area of consumption, the position of which has undergone a considerable change through the rapid expansion of the Java market. The imports into the Dutch East Indies for the four years 1927-30 averaged 55,000 cwts. or 176 frasilas, and may be taken as an indication of the markets present requirements (paragraph 90). During the four years referred to the actual consumption of Zanzibar cloves in the four territories averaged 114,000 cwts. or 364,800 frasilas, equivalent to about 63 per cent. of the Protectorate's exports during the same period.

Consumption is almost entirely dependent upon demand from India and Java, and the extent of Zanzibar's future trade in the East will be largely controlled by the trend of demand in these markets and by her ability to meet competition on a price and quality basis.

The old-established Indian market relies mainly upon a multitude of domestic consumers who put cloves to uses the nature of which appears to give strength and stability to the demand (paragraphs 41-47).

With a return to more normal conditions it may be expected that the trend of consumption will move slowly upwards (paragraph 48). In the meantime the trade has to contend with the inevitable impediment of high taxation (paragraphs 29-31) and suffers from the practise of adulteration the extent of which is indicated in Appendix D.

We are unable to suggest any measures for the control of adulteration which appears to have spread to all the markets with which Bombay has been associated. The restriction of the re-export trade of that port through the establishment of direct contact between Zanzibar and other markets has limited the scope of the evil, and a further extension of direct trading with the subsidiary markets in India would be beneficial in this and other directions (paragraphs 18-22).

As a possible means of minimizing the loss accruing to the Zanzibar industry through the adulteration of standard quality cloves, and with a view to meeting competition in other markets, it is suggested that consideration be given to the establishment of a grading system (paragraphs 39-40).

The present position of the Java market is obscured as a result of the abnormal imports in 1931, but the movement of cloves to the Dutch East Indies during the next six months or so should help to define the extent of present over-stocking. The prospects of this market depend upon the future of the kretek industry in regard to which there is a confliction of opinion (paragraphs 107-113).

Price stability and the supply of standard quality cloves reasonably free from khoker admixture are essential in relation to the trade of this market (paragraphs 105-106), and the Zanzibar clove exporting interests should take steps to safeguard their reputation for commercial integrity which here and elsewhere has suffered from the conduct of individual exporters (paragraphs 17, 65, 78).

The materially important uses to which cloves are put in the areas surveyed are restricted to those connected with (1) the flavouring of food, (2) the chewing of betel-nut pans, (3) the employment of their medicinal properties, and (4) the manufacture of cigarettes. In all these territories the clove has been known to commerce and to the home for many generations—a circumstance suggesting the improbability of a development similar to that recently witnessed in Java. We could discover no possibilities in the direction of new utilization and feel that an increase in demand is only likely to materialize through an improvement in the standard of living among the peoples of these territories—numbering over 400,000,000—and from the extension of organized trade. We suggest that by way of propaganda a brochure should be published for distribution through trade channels (paragraph 49).

So far as competition in these markets is concerned the most important factor is the threat from Madagascar whose produce, of a similar quality to that of Zanzibar, is known in all the principal markets (paragraphs 50, 58, 72, 102). We are not in a position to measure the potentialities of production in Madagascar, but some additional if less serious competition may be looked for from the revival of clove cultivation in Ceylon and British Malaya (paragraphs 63, 86, 88).

The post-war output of the Dutch East Indies is considerably greater than has been generally understood (paragraph 115). An important experiment is about to be undertaken in Java with a view to the production of a type of clove suitable for the kretek industry (paragraph 120).

The threat of increasing competition is all the more serious because of the superior quality of the cloves produced in Ceylon, Malaya, and the Dutch East Indies. Zanzibar does not appear to suffer any handicap as to general conditions affecting production, and an improvement of quality should be possible through the agencies of more heedful cultivation and better preparation, especially if grading is found to be feasible. The Zanzibar industry is more compact and in many ways better organized than its competitors in the centres visited by the mission, and usually has the advantage of cheaper overseas transport (paragraphs 83, 118).

In these competing centres clove cultivation is usually established on small-holding lines and is associated with the production of a number of spices and other crops. The grower is thus free from the difficulties which beset those of the Zanzibar agriculturists who are dependent upon the erratic yield of their clove trees and from the demoralizing effect of enforced idleness between harvesting seasons. It is perhaps going beyond the scope of our instructions, but in view of the threat of increasing competition for the Eastern markets we may be permitted to suggest that it is a matter worth consideration whether the position of the Zanzibar industry might not be fortified, and the earnings of the producers increased, if existing cultivation were allied to that of spices such as pepper, and nutmegs or other exportable crops.

13th October, 1932.

G. D. KIRSOPP.  
C. A. BARTLETT.

PART VII.  
STATISTICAL APPENDIX.

											<b>Tables</b>
INDIA AND BURMA	...	...	...	...	...	...	...	...	...	...	1-15
CEYLON	...	...	...	...	...	...	...	...	...	...	16-18
BRITISH MALAYA	...	...	...	...	...	...	...	...	...	...	19-23
DUTCH EAST INDIES	...	...	...	...	...	...	...	...	...	...	24-28
											<b>Appendixes</b>
INDIA AND BURMA	...	...	...	...	...	...	...	...	...	...	A-D
CEYLON	...	...	...	...	...	...	...	...	...	...	E-F
BRITISH MALAYA	...	...	...	...	...	...	...	...	...	...	G-H
SUNDRY	...	...	...	...	...	...	...	...	...	...	I-J
ITINERARY	...	...	...	...	...	...	...	...	...	...	Page 79

TABLE I.  
INDIA.STATEMENT SHOWING THE IMPORTS AND EXPORTS OF CLOVE PRODUCE OF ALL  
CATEGORIES FOR THE TEN YEAR PERIOD 1922-3 to 1931-2.  
(To nearest '000.)

Years	Total Imports*		Re-exports		Retained for Home Consumption	
	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas
1922-3	109	349	25	80	84	269
1923-4	62	198	11	35	51	163
1924-5	100	320	26	83	74	237
1925-6	106	339	29	93	77	246
1926-7	72	230	8	26	64	205
1927-8	83	266	2	6	81	259
1928-9	69	221	2	6	67	214
1929-30	83	266	3	10	80	256
1930-31	64	205	3	10	61	195
1931-2	84	269	1	3	83	266

TABLE II.  
INDIA.STATEMENT SHOWING THE APPROXIMATE IMPORTS OF CLOVE PRODUCE OF  
DIFFERENT CATEGORIES FOR HOME CONSUMPTION FOR THE TEN YEAR PERIOD  
1922-3 to 1931-2.  
(To nearest '000.)

Years	(1) Ordinary Cloves		(2) Exhausted Cloves		(3) Exhausted Clove Stems		(4) Ordinary Clove Stems		(5) Total of 2, 3, and 4		(6) Total Imports	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922-3	77	246	1	3	2	6	4	13	7	22	84	269
1923-4	43	138	5	16	1	3	2	6	8	26	51	163
1924-5	57	182	10	32	5	16	2	6	17	54	74	237
1925-6	64	205	8	26	4	13	1	3	13	42	77	246
1926-7	50	160	12	38	1	3	1	3	14	44	64	205
1927-8	66	211	9	29	5	16	1	3	15	48	81	259
1928-9	51	163	11	35	5	16	-	-	16	51	67	214
1929-30	68	218	5	16	6	19	1	3	12	38	80	256
1930-31	52	166	3	10	6	19	-	-	9	29	61	195
1931-2	63	202	1	3	18	58	1	3	20	64	83	266

TABLE III.  
INDIA.STATEMENT SHOWING THE QUANTITY AND VALUE OF CLOVE OIL IMPORTED  
FOR THE TEN YEAR PERIOD 1922-3 to 1931-2.

Year	Quantity Gallons	Value Rupees
1922-3	49	2,926
1923-4	38	2,328
1924-5	86	4,991
1925-6	78	3,354
1926-7	123	5,693
1927-8	76	2,653
1928-9	31	1,402
1929-30	49	2,230
1930-31	48	2,914
1931-2	16	669

TABLE IV.  
INDIA.

STATEMENT SHOWING IMPORTS OF CLOVE PRODUCE INTO THE BOMBAY PRESIDENCY (EXCLUDING SIND) FOR THE TEN YEAR PERIOD 1922-3 to 1931-2.

Year	(1) Clove produce from Overseas		(3) Adulterant Material		(2) Re-exports		(4) Ordinary Cloves for Home Consumption	
	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas
1922-3	99,400	318,080	7,000	22,400	25,400	81,280	67,000	214,400
1923-4	55,700	178,240	7,600	24,320	10,600	33,920	37,500	120,000
1924-5	91,500	292,800	16,400	52,480	25,600	81,920	49,500	158,400
1925-6	96,800	309,760	13,100	41,920	29,200	93,440	54,500	174,400
1926-7	63,900	204,480	13,800	44,160	8,400	26,880	41,700	133,440
1927-8	64,000	204,800	15,000	48,000	2,100	6,720	46,900	150,080
1928-9	53,100	169,920	15,500	49,600	2,000	6,400	35,600	113,920
1929-30	66,200	211,840	11,000	35,200	3,000	9,600	52,200	167,040
1930-31	51,500	164,800	9,200	29,440	2,600	8,320	39,700	127,040
1931-2	65,500	209,600	19,400	62,080	500	1,600	45,600	145,920

TABLE V.  
INDIA.

STATEMENT SHOWING THE RE-EXPORTS OF CLOVES DURING THE PERIOD  
1922-3 to 1931-2.  
DIRECTION OF TRADE.

Year	Straits Settlements		Countries served by Arabian Sea and Persian Gulf, e.g. Mesopotamia, Iraq, Persia, Aden, and Muscat		Egypt, Sudan, Eritrea, and Italian Somaliland		Other Countries		Total	
	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas
1922-3	21,770	69,664	1,000	3,200	570	1,824	2,050	6,560	25,390	81,248
1923-4	8,460	27,072	880	2,816	500	1,600	720	2,304	10,560	33,792
1924-5	22,580	72,256	1,730	5,536	230	736	1,110	3,552	25,650	82,080
1925-6	26,500	84,800	1,380	4,416	150	480	1,180	3,776	29,210	93,472
1926-7	5,390	17,248	1,890	6,048	120	384	970	3,104	8,370	26,784
1927-8	550	1,760	1,300	4,160	160	512	130	416	2,140	6,848
1928-9	1,050	3,360	540	1,728	270	864	90	288	1,950	6,240
1929-30	1,040	3,328	1,070	3,424	170	544	800	2,560	3,080	9,856
1930-31	1,400	4,480	370	1,184	80	256	750	2,400	2,600	8,320
1931-2	10	32	330	1,056	20	64	190	608	550	1,760

TABLE VI.  
INDIA.

STATEMENT SHOWING THE IMPORTS OF CLOVE PRODUCE INTO THE BENGAL PRESIDENCY FOR THE TEN YEAR PERIOD 1922-3 to 1931-2.

Year	Total Clove Produce		Adulterant Material		Ordinary Cloves	
	cwts.	frasilas	cwts.	frasilas	cwts.	frasilas
1922-3	9,500	30,400	—	—	9,500	30,400
1923-4	5,200	16,640	—	—	5,200	16,640
1924-5	8,500	27,200	600	1,920	7,900	25,280
1925-6	8,900	28,480	600	1,920	8,300	26,560
1926-7	7,600	24,320	600	1,920	7,000	22,400
1927-8	17,800	56,960	500	1,600	17,300	55,360
1928-9	14,600	46,720	500	1,600	14,100	45,120
1929-30	16,100	51,520	100	320	16,000	51,200
1930-31	12,400	39,680	300	960	12,100	38,720
1931-2	17,500	56,000	—	—	17,500	56,000

TABLE VII.  
INDIA.

STATEMENT SHOWING THE TOTAL IMPORTS OF CLOVE PRODUCE INTO THE MADRAS  
PRESIDENCY FOR THE TEN YEAR PERIOD 1922-3 to 1931-2.

Year	Cwts.	Frasilas
1922-3	121	387
1923-4	1,542	4,934
1924-5	128	410
1925-6	6	18
1926-7	66	211
1927-8	577	1,846
1928-9	388	1,242
1929-30	321	1,027
1930-31	270	864
1931-2	523	1,674

TABLE VIII.  
INDIA.

STATEMENT SHOWING THE IMPORTS OF CLOVE PRODUCE INTO KARACHI FOR  
THE TEN YEAR PERIOD 1922-3 to 1931-2.

Year	Quantity	
	cwts.	frasilas
1922-3	30	96
1923-4	—	—
1924-5	27	86
1925-6	21	67
1926	25	80
1927-8	—	—
1928-9	16	51
1929-30	—	—
1930-31	5	16
1931-2	14	45

TABLE IX.  
INDIA.

STATEMENT SHOWING THE CURRENT PRICE OF STANDARD QUALITY CLOVES AT  
VARIOUS MARKETING CENTRES.

Market	Price Rupees	Per unit of	Per frasila Rupees
Bombay ... ..	24	39 lbs.	21·54
Delhi... ..	55	80 lbs.	24·06
Agra ... ..	57	81½ lbs.	24·55
Cawnpore ... ..	64	94 lbs.	23·83
Calcutta ... ..	£1/4/-	2 lbs.	21·87
Rangoon ... ..	230	360 lbs.	22·36
Madras ... ..	16	25 lbs.	22·40
Bangalore, Mysore ... ..	18	25 lbs.	25·20



TABLE X.  
INDIA.

STATEMENT SHOWING TARIFF VALUATIONS, DUTY RATE AND DUTY PAYABLE ON CLOVES, EXHAUSTED CLOVES, CLOVE-STEMS, AND EXHAUSTED CLOVE-STEMS FOR THE YEARS 1921-32.

Year	Cloves			Exhausted Cloves			Clove-stems and Exhausted Clove-stems		
	Tariff Rs.	Rate %	Duty Rs.	Tariff Rs.	Rate %	Duty Rs.	Tariff Rs.	Rate %	Duty Rs.
1921									
January-February ...	19-375	7½	1-453	6-25	7½	4687	2-8125	7½	2109
March-December ...	19-375	11	2-131	6-25	11	6875	2-8125	11	3093
1922									
January-March ...	20-3125	11	2-234	6-25	11	6875	2-8125	11	3093
April-December ...	20-3125	15	3-046	6-25	15	9375	2-8125	15	4218
January-December each year:—									
1923 ... ..	20-3125	15	3-046	6-25	15	9375	2-8125	15	4218
1924 ... ..	20-3125	15	3-046	5-00	15	750	2-8125	15	4218
1925 ... ..	20-3125	15	3-046	5-00	15	750	2-8125	15	4218
1926 ... ..	19-6875	15	2-953	3-4375	15	5156	2-8125	15	4218
1927 ... ..	18-125	15	2-718	3-125	15	4687	2-50	15	3750
1928 ... ..	16-250	15	2-437	3-4375	15	5156	2-1875	15	3281
1929 ... ..	16-250	15	2-437	3-4375	15	5156	2-1875	15	3281
1930 ... ..	21-875	15	3-281	3-9065	15	5859	3-125	15	4687
1931									
January-March ...	20-3125	15	3-046	5-000	15	750	3-125	15	4687
April-December ...	20-3125	30	6-093	5-000	30	1-500	3-125	30	9375
1932 ... ..	18-750	37½	7-031	7-1875	37½	2-6953	3-125	37½	1-1718

In Rupees per Frasila.

TABLE XI.  
INDIA.

STATEMENT SHOWING THE IMPORTS OF CLOVE PRODUCE (EXCLUDING EXHAUSTED MATERIAL) FROM COUNTRIES OTHER THAN ZANZIBAR FOR THE TEN YEAR PERIOD 1922-3 to 1931-2.

Year	Countries									
	Ceylon		France		Madagascar		Java		Straits Settlements	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922-3	75-00	240	—	—	—	—	—	—	—	—
1923-4	255-00	816	—	—	—	—	—	—	—	—
1924-5	93-75	300	—	—	—	—	—	5-93	19	—
1925-6	5-93	19	225-93	723	—	—	—	7-81	25	—
1926-7	35-00	112	717-81	2,297	—	—	—	860-00	2,752	—
1927-8	74-06	237	—	—	40-00	128	—	90-00	288	—
1928-9	475-93	1,523	2,080-93	6,659	341-87	1,094	165-93	531	700-93	2,243
1929-30	214-06	685	325-00	1,040	—	—	—	—	120-00	384
1930-31	139-06	445	1,937-81	6,201	192-81	617	—	—	110-93	355
1931-2	190-00	608	—	—	137-50	440	—	—	5-31	17

TABLE XII.  
INDIA.  
STATEMENT SHOWING COASTWISE TRAFFIC IN CLOVE PRODUCE FOR THE FIVE  
YEAR PERIOD 1926-7 to 1930-31.

Year	Shipments from Bombay to							
	The Bengal Presidency —all Calcutta		The Madras Presidency —all Madras		Burma —all Rangoon		Karachi	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1926-7	5,100	16,320	4,943	15,818	2,100	6,720	800	2,560
1927-8	2,700	8,640	3,941	12,611	1,900	6,080	900	2,880
1928-9	1,300	4,160	573	1,834	1,300	4,160	600	1,920
1929-30	500	1,600	2,051	6,563	1,951	6,243	600	1,920
1930-31	200	640	946	3,027	1,700	5,440	500	1,600

TABLE XIII.  
INDIA.  
STATEMENT SHOWING THE CONSUMPTION OF CLOVE PRODUCE FOR THE FOUR  
YEARS 1910-11 to 1913-14.

	1910-11		1911-12		1912-13		1913-14	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
Cloves and Stems...	58,137.50	186,040	76,174.37	243,758	47,464.67	151,887	76,529.37	244,894
Exhausted Material	8,114.37	25,966	13,119.37	41,982	22,663.75	72,524	4,264.06	13,645
Re-Exports:—	66,251.87	212,006	89,293.74	285,740	70,128.42	224,411	80,793.43	258,539
Cloves, Stems, Ex- hausted Materials	6,414.06	20,525	10,713.75	34,284	4,235.93	13,555	19,338.43	61,883

TABLE XIV.  
INDIA.  
STATEMENT SHOWING THE IMPORTS OF EXHAUSTED CLOVE PRODUCE FOR THE  
PERIOD OF FOUR YEARS 1910-11 to 1913-14.

From	1910-11		1911-12		1912-13		1913-14	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
Germany ...	732	2,343	12,250	39,200	17,341	55,491	1,587	5,078
U.S.A. ...	—	—	—	—	4,281	13,697	2,676	8,563
Hong Kong ...	791	2,531	786	2,515	148	474	—	—

TABLE XV.  
INDIA.  
EXPORTS OF CLOVE PRODUCE TO ALL DESTINATIONS FOR THE FOUR YEAR PERIOD  
1910-11 to 1913-14.

	1910-11		1911-12		1912-13		1913-14	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
Aden ... ..	237.18	759	654.68	2,095	414.06	1,325	584.37	1,870
Bahrein, Other Arab States, Persian Gulf, Muscat ...	361.56	1,157	1,226.56	3,925	400.00	1,280	662.18	2,119
Red Sea Ports ...	—	—	—	—	—	—	295.31	945
Persia ... ..	66.56	213	99.27	318	88.43	283	102.18	327
Turkey ... ..	219.37	702	—	—	—	—	—	—
Levant ... ..	—	—	53.12	170	—	—	15.93	51
Egypt (Sudan) ...	1,031.87	3,302	962.81	3,081	304.68	975	766.87	2,454
Italian Somaliland	149.68	479	131.87	422	224.37	718	323.12	1,034
Abyssinia ... ..	—	—	46.87	150	25.00	80	175.62	562
Ceylon ... ..	198.12	634	187.81	601	218.75	700	340.62	1,090
Mauritius ... ..	35.31	113	65.62	210	20.31	65	3.12	10
Siam ... ..	38.43	123	46.56	149	12.50	40	118.43	379
China Ports ...	—	—	—	—	4.37	14	38.43	123
Japan Ports ...	127.17	407	457.31	1,464	53.12	170	240.00	768
Straits Settlements	3,167.50	10,136	4,547.68	14,552	2,010.00	6,432	10,706.56	34,261
Hong Kong ... ..	586.25	1,876	1,920.31	6,145	292.18	935	4,845.93	15,507
All other Ports ...	194.06	621	79.68	255	90.62	290	106.87	342

TABLE XVI  
CEYLON.  
STATEMENT SHOWING THE APPROXIMATE QUANTITIES OF CLOVE IMPORTS FOR  
THE YEARS 1922-31.  
IMPORTS.

Year	Country of Shipment									
	British India		Zanzibar		France		Madagascar		Totals	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922	194	620	—	—	12	38	—	—	206	658
1923	18	58	—	—	—	—	—	—	18	58
1924	81	259	—	—	—	—	—	—	81	259
1925	36	115	—	—	—	—	—	—	36	115
1926	85	272	—	—	91	291	31	99	207	662
1927	20	64	—	—	—	—	—	—	20	64
1928	11	35	89	285	20	64	—	—	120	384
1929	235	752	—	—	—	—	—	—	235	752
1930	17	54	—	—	—	—	—	—	17	54
1931	125	400	105	336	—	—	—	—	230	736

TABLE XVII.  
CEYLON.  
STATEMENT SHOWING THE EXPORTS AND RE-EXPORTS OF CLOVES FOR THE  
YEARS 1922-31.  
• RE-EXPORTS.

Year	Destination							
	Maldives		British India		Other Countries		Total	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922	27	86	—	—	—	—	27	86
1923	28	90	43	138	—	—	71	227
1924	33	106	160	512	—	—	193	618
1925	46	147	18	58	—	—	64	205
1926	44	141	—	—	—	—	44	141
1927	38	122	—	—	—	—	38	122
1928	42	134	75	240	—	—	117	374
1929	76	243	—	—	—	—	76	243
1930	74	237	—	—	—	—	74	237
1931	71	227	—	—	—	—	71	227

## EXPORTS.

Year	Destination							
	Maldives		British India		Other Countries		Total	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922	3	10	122	390	—	—	125	400
1923	5	16	30	96	10	32	45	144
1924	—	—	59	189	19	61	78	250
1925	7	22	19	61	23	74	49	157
1926	—	—	19	61	7	22	26	83
1927	7	22	52	166	25	80	84	268
1928	—	—	56	179	11	35	67	214
1929	—	—	515	1648	2	6	517	1654
1930	—	—	85	272	—	—	85	272
1931	—	—	106	339	4	13	110	352

TABLE XVIII.  
CEYLON.

## SUMMARY OF EXPORTS AND RE-EXPORTS OF CLOVES FOR THE YEARS 1922-31.

(a) Total Exports 1922-31...	...	...	...	...	1,186 cwts.
(b) Total Re-Exports 1922-31	...	...	...	...	775 cwts.
					1,961 cwts.
(c) Total Imports 1922-31...	...	...	...	...	1,170 cwts.
Excess of Exports and Re-Exports over Imports	...	...	...	...	791 cwts.

Annual average excess being 79.1 cwts. pr. 253 fras.

TABLE XIX.  
BRITISH MALAYA.  
STATEMENT SHOWING THE IMPORTS AND EXPORTS OF CLOVE PRODUCE FOR THE  
TEN YEARS 1922-31.

Year.	Imports.		Exports.	
	cwts.	fras.	cwts.	fras.
1922	13,780	44,100	14,780	47,300
1923	17,530	56,100	15,800	49,900
1924	19,440	62,200	18,540	59,300
1925	30,690	98,200	29,300	93,800
1926	25,410	81,300	24,880	79,600
1927	34,070	109,000	32,820	105,000
1928	16,720	53,500	18,250	58,400
1929	14,810	47,400	15,220	48,700
1930	15,500	49,600	14,220	45,500
1931	5,750	18,400	7,000	22,400

TABLE XX.  
BRITISH MALAYA.  
STATEMENT SHOWING THE IMPORTS OF CLOVES INTO PENANG FOR THE TEN YEARS  
1922-31.

Year	British India (Zanzibar origin)		Countries of Shipment. Sumatra (D.E.I. origin)		Other Countries	
	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922	271·5	868	301·5	964	0·62	2
1923	175·60	562	180·94	579	—	—
1924	282·80	905	154·06	493	7·81	25
1925	628·12	2,010	16·90	54	—	—
1926	567·50	1,816	327·37	1,048	·62	2
1927	26·25	84	123·43	395	—	—
1928	40·31	129	453·75	1,452	—	—
1929	89·06	285	421·25	1,348	—	—
1930	25·93	83	177·50	568	8·43	27
1931	—	—	442·81	1,417	—	—

TABLE XXI.  
BRITISH MALAYA.  
STATEMENT SHOWING THE EXPORTS OF CLOVES FROM PENANG FOR THE TEN  
YEARS 1922-31.

Year.	Countries of Consignment.									
	United Kingdom.		Hong Kong, China Coast, Siam.		Java, Sumatra and Islands Dutch East Indies.		U.S.A.		Other Countries.	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922	325·93	1,043	398·43	1,275	348·12	1,114	—	—	5·93	19
1923	572·50	1,832	409·06	1,309	355	1,136	—	—	66·56	213
1924	514·06	1,645	954·37	3,054	184·09	589	—	—	—	—
1925	105·31	337	354·37	1,134	627·10	2,007	—	—	—	—
1926	606·87	1,942	374·37	1,198	250·62	802	—	—	10·00	32
1927	530·93	1,699	264·09	845	126·56	405	—	—	30·00	96
1928	851·25	2,724	184·68	591	97·81	313	—	—	441·87	1,414
1929	585·31	1,873	254·06	813	315·31	1,009	—	—	242·18	775
1930	95·00	304	148·12	474	174·06	557	—	—	2·50	8
1931	351·87	1,126	177·18	567	110·93	355	—	—	1·25	4

TABLE XXII.  
BRITISH MALAYA.  
STATEMENT SHOWING THE IMPORTS OF CLOVES INTO SINGAPORE FOR THE TEN  
YEARS 1922-31.

Year.	Countries imported from.									
	*British India.		†Other British Possessions.		‡Hong Kong.		§Dutch East Indies.		Other Countries.	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922	12,589.06	40,285	130.93	419	—	—	496.24	1,588	1.25	4
1923	14,536.87	46,518	2.50	8	241.56	773	2,362.49	7,560	52.18	167
1924	17,983.75	57,548	59.68	191	40.00	128	520.93	1,667	400.00	1,280
1925	29,703.75	95,052	—	—	101.87	326	216.87	694	—	—
1926	13,176.56	42,165	9,935.00	31,792	—	—	1,397.80	4,473	2.50	8
1927	4,279.68	13,695	29,058.75	92,988	—	—	543.73	1,740	9.67	31
1928	48.75	156	15,750.62	50,402	11.87	38	405.26	1,297	—	—
1929	728.43	2,331	12,948.75	41,436	—	—	624.36	1,998	—	—
1930	—	—	14,791.56	47,333	—	—	495.30	1,585	—	—
1931	1.25	5	4,625.31	14,801	—	—	684.68	2,191	—	—

\* Zanzibar origin.

† From Zanzibar.

‡ From Sumatra, Celebes and Moluccas and other Dutch East Indies Islands.

|| Origin doubtful.

TABLE XXIII.  
BRITISH MALAYA.  
STATEMENT SHOWING THE EXPORTS OF CLOVES FROM SINGAPORE FOR THE TEN  
YEARS 1922-31.

	Countries of Consignment.							
	Java.		Sumatra and other Dutch East Indies Islands.		Hong Kong, • China Coast, Siam.		Other Countries.	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1922	12,303.12	40,570	144.37	463	863.43	2,763	361.25	1,156
1923	11,300.00	36,160	145.00	464	1,540.00	4,928	1,214.37	3,886
1924	16,098.12	51,514	174.37	558	472.50	1,512	131.87	422
1925	26,571.25	85,028	229.06	733	1,083.75	3,468	331.56	1,061
1926	20,319.06	65,021	145.00	464	2,555.31	8,177	620.31	1,985
1927	28,785.93	92,115	230.93	739	1,827.18	5,847	1,024.37	3,278
1928	14,878.43	47,611	152.18	487	555.00	1,776	1,107.18	3,543
1929	11,835.62	37,874	169.06	541	1,308.75	4,188	495.00	1,584
1930	12,342.18	39,496	115.62	370	806.56	2,581	562.81	1,801
1931	1,942.81	6,217	122.50	392	3,377.18	10,807	887.18	2,839

TABLE XXIV.  
DUTCH EAST INDIES.  
STATEMENT SHOWING THE IMPORTS OF CLOVES FOR TEN YEARS 1922-31.

From	1922		1923		1924		1925		1926		1927		1928		1929		1930		1931	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
Singapore ...	12,931.21	41,380	11,703.12	37,450	16,256.25	52,020	23,268.75	74,460	25,350.00	81,120	27,334.37	87,470	14,693.75	47,020	10,171.87	32,550	11,115.62	35,570	99,671.87	318,950
Zanzibar ...	—	—	—	—	—	—	1,309.37	4,190	14,825.00	47,440	30,534.37	97,710	46,403.12	148,490	32,987.50	105,560	48,881.25	155,780		
Great Britain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
British India	—	—	—	—	18.75	60	1,128.12	3,610	346.87	1,110	975.00	3,120	—	—	981.55	3,140	168.75	540		
Penang ...	363.14	1,130	346.87	1,110	150.00	480	600.00	1,920	271.87	870	143.75	460	106.25	340	337.50	1,080	200.00	640	1,943.75	6,220
Hong Kong and China...	—	—	56.25	180	—	—	540.62	1,730	565.62	1,810	50.00	160	—	—	—	—	—	—		
Madagascar and France	—	—	—	—	—	—	—	—	325.00	1,040	656.74	2,100	140.62	450	40.62	130	—	—		
Others ...	9.37	30	28.12	90	59.37	190	134.37	430	28.12	90	267.75	860	—	—	3.12	10	3.12	10	—	—

TABLE XXV.  
DUTCH EAST INDIES.  
STATEMENT SHOWING THE EXPORT OF CLOVES FOR THE YEAR PERIOD 1922-31.

Country	1922		1923		1924		1925		1926		1927		1928		1929		1930		1931	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
Holland ...	—	—	1,435.62	4,594	658.12	2,106	131.25	420	1,958.75	6,268	1,032.81	3,305	2,546.87	8,150	318.75	1,020	717.50	2,296	514.06	1,645
Great Britain ...	63.12	202	805.00	2,576	—	—	33.75	108	—	—	1,239.37	3,966	1,517.81	4,857	83.43	267	278.43	893	344.68	1,103
Germany ...	—	—	—	—	1.25	4	—	—	—	—	—	—	—	—	101.87	326	—	—	—	—
Sweden ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	40.62	130	—	—	—	—
U.S.A. ...	443.75	1,420	2,191.87	7,014	74.68	239	261.87	838	814.68	2,607	1,144.06	3,661	1,667.18	5,335	943.43	3,019	1,699.06	5,437	2,521.25	8,068
Japan ...	—	—	—	—	—	—	12.18	39	—	—	157.81	505	25.62	82	42.50	136	38.43	123	166.56	597
China ...	—	—	—	—	—	—	—	—	—	—	74.68	239	—	—	—	—	53.75	172	24.68	79
Siam ...	—	—	—	—	—	—	—	—	—	—	31.56	101	—	—	—	—	—	—	—	—
British India ...	—	—	—	—	—	—	—	—	—	—	—	—	196.25	628	—	—	—	—	—	—
Hong Kong ...	41.25	132	125.93	403	85.93	275	—	—	—	—	43.43	139	—	—	—	—	101.56	325	33.12	106
Singapore ...	300.62	962	1,674.68	5,359	375.00	1,200	292.18	935	1,419.06	4,541	157.81	505	399.37	1,278	563.43	1,803	450.93	1,443	499.06	1,597
Penang ...	279.37	894	150.93	483	93.12	298	35.00	112	367.18	1,175	143.75	460	590.31	1,889	389.06	1,245	89.06	285	465.00	1,552
Others ...	1.25	4	1.87	6	—	—	—	—	579.68	1,855	—	—	8.43	27	8.43	27	2.18	7	137.18	439

TABLE XXVI.  
DUTCH EAST INDIES.  
STATEMENT SHOWING THE IMPORTS OF FOREIGN CLOVES INTO JAVA AND MADURA  
FOR THE TEN YEARS 1922-31.

Year	Cwts.	Frasilas
1922	12,676.67	40,565
1923	11,615.32	37,169
1924	16,163.24	51,723
1925	26,106.01	83,539
1926	37,356.66	119,541
1927	59,569.81	190,623
1928	61,123.96	195,596
1929	43,907.02	140,502
1930	59,680.72	190,978
1931	101,618.07	325,178

TABLE XXVII.  
DUTCH EAST INDIES.  
STATEMENT SHOWING THE IMPORT OF CLOVES INTO JAVA FROM THE OUTER  
ISLANDS FOR THE SIX YEARS 1926-31.

Year	Country									
	Sumatra		Celebes		Moluccas		Others		Total of Islands	
	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.	cwts.	fras.
1926*	—	—	—	—	—	—	—	—	6,320	20,224
1927*	—	—	—	—	—	—	—	—	3,860	12,362
1928	10,040	32,128	3,380	10,816	1,880	6,016	—	—	15,300	48,960
1929	2,320	7,424	3,000	9,600	3,880	12,416	80	256	9,280	29,696
1930	7,720	24,704	2,840	9,088	2,140	6,848	60	192	12,760	40,832
1931*	—	—	—	—	—	—	—	—	11,940	38,208

\* Details not available.

TABLE XXVIII.  
DUTCH EAST INDIES.  
STATEMENT SHOWING THE EXPORTS OF CLOVE STEMS FOR THE FIVE YEAR PERIOD  
1926-31.

Year	Exported to					
	Holland		Hong Kong		Other Countries	
	cwts.	fras.	cwts.	fras.	cwts.	fras.
1926	—	—	—	—	1.25	4
1927	—	—	70.60	226	1.87	6
1928	55.62	178	—	—	10.31	33
1929	—	—	76.25	244	—	—
1930	193.75	620	—	—	11.87	38
1931	—	—	—	—	—	—



APPENDIX A.  
INDIA.

STATEMENT SHOWING THE AREAS AND PRINCIPAL TRADE CENTRES SERVED BY  
THE RAILWAY SYSTEMS OPERATING FROM THE MAJOR ENTRY PORTS.

Entry Port.	Railway.	Area served with principal internal trade centres.
Bombay ...	Bombay, Baroda and Central India	Northern half of the Bombay Presidency, Central India and Southern Rajputana Surat, Broach, Ahmedabad, Muttra, Delhi
Bombay ...	Great Indian Peninsular ... ..	Central portion of Bombay Presidency, Hyderabad, Western half Central Provinces, Central India, lower part of the United Provinces and some part of Rajputana Poona, Raichur, Ahmednagar, Nasik, Sholapur, Akola, Amraoti, Nagpur, Jubbulpore, Katni, Gwalior, Agra, etc., etc.
Calcutta ...	Eastern Bengal ... ..	Eastern Bengal, the North-Western portion of Assam and the Northern Gangetic plain in Bengal to the foot of the Himalayas Naihati, Murshidabad, Patna, Goalundo, Naraingani, etc., etc.
Calcutta ...	Bengal Nagpur ... ..	Eastern half of the Central Provinces, Bihar and Orissa, and down to Vizagapatam in the Madras Presidency Raipur, Nagpur, Jubbulpore, Amraoti
Calcutta ...	East Indian ... ..	Southern end of the Punjab, United Provinces, Bihar and Western Bengal Jamshedpur, Mirzapur, Benares, Allahabad, Cawnpore, Agra, Delhi, etc.
Madras ...	Madras and Southern Mahratta ...	North-Eastern and Central parts of the Madras Presidency, part of Hyderabad, the Southern part of the Bombay Presidency and Mysore Bangalore, Guntakal, Poona, Guntur, Bezweda, Ellore, Cocanada
Karachi ...	North-Western ... ..	Sind, the Punjab, North-Western Frontier Province, Baluchistan Hyderabad (Sind) Larkana, Shikarpur, Jacobabad, Quetta, Rawalpindi, Lahore, Amritsar, etc., etc.
Rangoon ...	Burma Railways ... ..	Upper and Lower Burma Prome, Pegu, Myingyan, Mandalay, Bassein, Martaban, etc., etc.

## APPENDIX B.

## INDIA.

## NOTE REGARDING MEASURES ADOPTED IN INDIA TO PREVENT ADULTERATION OF FOODSTUFFS.

BY THE DIRECTOR-GENERAL, THE DEPARTMENT OF COMMERCIAL INTELLIGENCE AND STATISTICS,  
CALCUTTA.

There are special enactments in force in the different provinces of British India governing the manufacture and sale of foodstuffs. In general it may be stated that the operation of these special laws is restricted to the principal towns, but the legal safeguards provided by these enactments are being gradually extended to selected rural areas. Examples of such legislative measures are given below:—

*Assam.*—The Assam Local Self-Government Act, 1925, and the Assam Municipal Act, 1923, contain provisions relating to the sale of foodstuffs which make it punishable to sell to the prejudice of the purchaser any article of food which is not of the nature, substance or quality of the article demanded by the purchaser. Standards of purity have been prescribed under these acts for certain foodstuffs, namely, tea, milk, butter, ghee, mustard oil and wheat flour and manufacturers of these articles are prohibited from keeping adulterants on their premises for any purpose. It is further provided that separated or skimmed condensed milk may not be sold unless the receptacle containing it bears a label indicating that the milk has been skimmed and is not suitable for feeding infants under one year of age.

*Bengal.*—Rules framed under the Bengal Food Adulteration Act, 1919, and the Calcutta Municipal Act, 1923, prescribe the maximum proportions of extraneous matter admissible in the following articles, namely, milk, dahi (curd), chhana (curd), khoa (desiccated milk), ghee (clarified butter), butter, mustard oil, cocoanut oil, wheat flour, ata (flour) and tea.

It is provided that:—

- (1) Cow's milk shall contain not less than 3·5 per cent. of milk fat and not less than 8·5 per cent. of non-fatty solids.
- (2) Butter shall not contain more than 20 per cent. of water.
- (3) Dahi derived from cow's milk and buffalo's milk shall contain not less than 3·5 per cent. of 6 per cent. of milk fat respectively.
- (4) Chhana exposed for sale shall contain not less than 10 per cent. of milk fat.
- (5) Khoa shall contain not less than 25 per cent. of milk fat.
- (6) Ata shall contain not more than 2·5 per cent. of ash.
- (7) Cocoanut oil (edible) shall have a saponification value of not less than 250 and not more than 260, and iodine value of not less than 8 and not more than 9.
- (8) Tea is the leaves and buds of various species *Thea* prepared by the usual trade processes of fermenting, drying and firing and conforming in variety and place of production to the name it bears. It contains between 4 and 8% of total ash, the proportion of this ash soluble in boiling distilled water being not less than 40 per cent. The extract obtained by boiling one part of tea with 100 parts by weight of distilled water for one hour is not less than 30 per cent. (The tea used in determining the percentage of total ash and extract is "dry tea," tea dried to constant weight at 100° C.). The structure of the leaves present is that of the *Camellia* genus.

*Bombay.*—The Bombay Prevention of Adulteration Act, 1925, and the rules framed thereunder:

- (1) Prohibit the use of certain colouring matters such as compounds of antimony, mercury, lead, etc., gamboge and coal tar colours.
- (2) Enumerate the articles of food which may contain preservatives and the nature and proportion of preservative permissible in each case.
- (3) Prescribe degrees of purity in the case of certain articles of food such as milk, butter, ghee, wheat flour and tea, and
- (4) Require the labelling of receptacles containing ghee and butter substitutes, condensed skimmed milk and certain other articles.

*Madras.*—The rules promulgated under the Madras Prevention of Adulteration Act, 1918, prescribe standards of purity for milk, butter, ghee, tea and provide for the correct labelling of receptacles containing articles of food which are not pure by reason of any addition, admixture or deficiency. In addition, the use of utensils or vessels which are imperfectly enamelled or imperfectly tinned or which are not in a clean and sanitary condition in the manufacture or preparation of any food intended for sale, is prohibited.

*The Punjab.*—The Punjab Pure Food Act, 1929, while providing the usual safeguards, is more especially directed to the prevention of the sale of ghee substitutes and adulterated ghee as pure ghee.

Similar laws exist in Bihar and Orissa, Burma, the Central Provinces and the United Provinces.

In Bengal the large scale manufacture of spirituous pharmaceutical preparations is only permitted in bond, and no sale is allowed of any preparation which is found by the Government Chemical Examiner to have a defective alcoholic strength or which does not conform to the approved recipe. It is provided also that the letters B.P. should be shown distinctly on every British Pharmacopoeia preparation.

The manufacture and sale of intoxicating liquors and intoxicating drugs are directly under the control of Government throughout British India.

The Municipal laws of the chief towns provide for the compulsory inspection of animals slaughtered for food, but no official stamp is used either to signify the quality of the meat or inspection.

Such laws also provide, in a number of cases, for the inspection of and the regulation of the conduct of business in, places of manufacture, preparation or sale of specified articles of food, so as to secure cleanliness in such establishments or to minimise any injurious, offensive or dangerous effect likely to arise therefrom. Among establishments to which such laws apply may be mentioned bakeries, dairies, flour mills, and aerated water factories.

Under the Indian Penal Code, 1860, the adulteration of any article of food or drink in order to make such article noxious as food or drink or of any drug or medical preparation in such a manner as to lessen the efficacy or change the operation of such drug or medical preparation is an offence punishable with imprisonment or fine. The same law provides penalties for the sale, offer or exposure for sale of adulterated articles of food or drink or of adulterated drugs or medical preparations as a different drug or medical preparation.

Another section of the Penal Code imposes penalties on any person guilty of cheating.

It is provided in the Indian Contract Act, 1872, that on the sale of provisions there is a warranty that they are sound. On the sale of goods by sample, there is an implied warranty that the bulk is equal in quality to the sample. In cases where there has been a contract with a warranty and the warranty is broken the buyer is entitled to compensation from the seller for any loss caused by the breach of warranty.

APPENDIX C.  
INDIA.  
RECORD OF ANALYSIS OF CLOVE OIL ON SALE.  
TWO SAMPLES TESTED.

Appearance	Eugenol %	Specific gravity 15.5/15.5°	Refractive Index 20° C.	Retail price per lb.	Remarks
1. Clear and bright—slightly dark ...	89.0	1.0614	1.5347	Rs. 12	Genuine Clove Oil
2. Clear but dark ...	27.0	0.9873	1.4961	Rs. 4	Probably mixture of 30/35% of an essential oil containing eugenol (probably cinnamon leaf or pimento oil) with a vegetable oil (almost certainly castor oil)

NOTE.—1. Imported clove oil.  
2. Locally distilled oil and selling (labelled) as clove oil.

APPENDIX D.  
INDIA.

RECORD OF ANALYSIS OF SAMPLE OF CLOVES, ETC.

Nos.	Nature and quantity of foreign matter—%			Oil % on Cloves free from Foreign Matter	Price Rs. p. fras Duty paid	Wholesale	Cloves picked over
	Genuine Stem	Mainly Exhausted Stem	Other Foreign Matter			Retail	
1.	—	100	—	Slight trace. Devoid of clove flavour	2/84	Wholesale	Exhausted clove stem broken and coloured.
2.	—	20.9	—	16.8	18/84	Wholesale	Rather dull
3.	—	21.5	—	16.4	17/94	Wholesale	Fair
4.	—	Not recorded	—	5.4	4/	Wholesale	Genuine stem broken
5.	—	100	—	Slight trace. No clove flavour	2/84	Wholesale	Exhausted clove stem unbroken, not coloured
6.	3.5	—	0.5	—	21/54	Wholesale	Zanzibar Standard. Fair sample
7.	—	23.7	—	18.1	24/06	Retail	
8.	—	3.2	—	17.8	28/44	Retail	Selling as Zanzibar Standard
9.	—	— Ex Bombay	—	No trace of essential oil. No clove odour.	10/02	Wholesale	Exhausted buds. Colour treated. Nature of colouring not determined
10.	3.1	—	.5	17.3	25/03	Retail	—
11.	3.2	—	—	16.8	24/93	Wholesale	—
12.	—	17.7	—	16.8	21/87	Wholesale	—
13.	—	15.3 Ex Delhi	—	16.8	70/-	Retail†	—
14.*	3.8	—	—	16.8	27/34	Retail	Rather dull
15.	—	19.6	—	16.8	25/03	Retail	Sound—rather dull
16.†	4.3	—	—	17.6	30/62	Retail	Rather dull
18.	3.3	—	.6	17.3	21/87	Wholesale	Good—rather dull
19.	3.00	—	—	No record	23/70	Wholesale	Good quality
20.	1.5	— Ex Cawnpore	—	16.8	22/96	Wholesale	Very good
21.	3.3	—	—	17.2	22/42	Wholesale	Good quality
22.	—	6.3	—	No record	21/87	Wholesale	Sound
23.	4.0	—	—	16.8	21/87	Wholesale	Rather dull

APPENDIX D—continued.

INDIA.

RECORD OF ANALYSIS OF SAMPLE OF CLOVES, ETC.

Nos.	Nature and quantity of foreign matter—%			Oil % on Cloves free from Foreign Matter	Price Rs. p. fras Duty paid	Wholesale		Cloves picked over
	Genuine Stem	Mainly Exhausted Stem	Other Foreign Matter			Retail		
24.	3.2	—	—	17.3	21/87	Wholesale	Dull. Sound	
25.	2.7	—	—	16.3	22/15	Wholesale	Good. Bright	
		Ex Calcutta						
26.	6.4	—	0.4	16.5	22/36	Wholesale	Good. Bright	
27.	—	36.8	0.9	16.5	18/47	Wholesale	Good. Bright	
28.	5.7	—	0.2	17.1	23/04	Wholesale	Good. Bright	
29.	—	26.2	1.3	16.8	18/71	Wholesale	Good. Bright	
30.	—	17.3	0.7	16.8	24/06	Retail	Good	
31.	—	18.1	0.7	16.5	21/87	Retail	Good	
		Ex Rangoon						
32. §	—	13.0	0.7	16.8	21/-	Wholesale	Rather dull	
33.	2.8	—	0.4	17.1	26/25	Retail	Rather dull	
34.	4.9	—	0.5	17.1	28/42	Retail	Slightly dark	
35.	3.3	—	0.6	17.1	26/25	Retail	Slightly dull	
		Ex Madras						
36.	3.7	—	0.4	16.8	24/15	Wholesale	Good. Slightly dull	
37.	2.4	—	0.2	17.1	28/42	Retail	Good. Trifle dull	
38.	5.4	—	0.6	17.1	28/42	Retail	Good. Slightly dark	
39.	—	12.2	0.8	17.3	30/62	Retail	Good. Trifle dull	
		Ex Bangalore, Mysore						

Nos. 1- 9 Ex Bombay  
 Nos. 10-13 Ex Delhi  
 Nos. 14-16 Ex Agra } Ex Bombay  
 Nos. 16-20 Ex Cawnpore }  
 Nos. 21-25 Ex Calcutta Direct }  
 Nos. 26-31 Ex Rangoon } Ex Bombay and Direct  
 Nos. 32-35 Ex Madras }  
 Nos. 36-39 Ex Mysore, Bangalore Ex Bombay and Madras

\* Agra samples obtained from wholesale sources.  
 † Cawnpore samples obtained from wholesale sources.  
 ‡ Disregard: Fictitious price: but actually paid.  
 Rs. 23/- is the likely correct value.  
 § From Bombay dealer.  
 || From Bombay dealer.

APPENDIX E.

CEYLON.

RECORD OF ANALYSIS OF SAMPLES OF CLOVES FROM CEYLON MARKETS.

No.	Nature and quantity of Foreign Matter %			Oil % on Cloves free from Foreign Matter	Price Rs. p fras.	Wholesale	Cloves picked over
	Genuine Stem	Mainly Exhausted Stem	Other Foreign Matter			Retail	
1.	1.8	—	0.1	19.2	15/22	Wholesale	Containing high proportion of small immature cloves Dull sample. Cloves sound
2.	—	17.9	0.1	16.8	26/25	Retail	
3.	22.2	—	0.1	14.7	15/75	Retail	Cloves genuine and sound
4.	16.0	—	0.6	16.5	21/-	Retail	Excess of immature buds. Red colour suggests artificial drying
5.	4.7	—	0.05	20.2	31/50	Retail	Very fine. Bright and uniform
6.	1.9	—	0.1	19.7	17/50	Wholesale	Buds rather short. Bright
7.	1.2	—	0.1	20.5	21/-	Wholesale	Sound and large but colour very dull

The high oil content of some of the samples will be noted.

The stems—after removing from samples—were mixed and distilled and yielded 6.890 per cent. of oil—a high figure.

APPENDIX F.

CEYLON.

RECORD OF ANALYSIS OF SAMPLE OF CLOVE OIL ON SALE IN CEYLON MARKETS.

Appearance	Eugenol %	Specific gravity 15.5°/15.5°	Refractive Index 20° C.	Retail Price p. lb.	Remarks
Clear and bright. Light colour	87.5	1.0572	1.5335	Rs. 16	Genuine clove oil good quality

NOTE.—The market appears to be supplied with imported oil. Locally distilled was not obtainable.

APPENDIX G.  
STRAITS SETTLEMENTS.  
EXTRACTS FROM THE LEGISLATION IN FORCE IN THE STRAITS SETTLEMENTS FOR  
THE CONTROL OF THE ADULTERATION OF FOODSTUFFS.

NOTE PROVIDED BY H.M. TRADE COMMISSIONER, SINGAPORE.

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STRAITS SETTLEMENTS ORDINANCE NO. 139—SALE OF FOOD AND DRUGS.

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Section 2.—In this Ordinance unless there is something repugnant in the subject matter or context.

“Food” includes every article which is used for food or drink by man or which enters into or is used in the composition or preparation of any such article, and also includes, flavouring matters and condiments but does not include drugs or water.

“Sale” or “Sell” includes barter, and also includes offering or attempting to sell or receiving for sale or having in possession for sale or causing or allowing to be sold, offered or exposed for sale and refers only to sale for human consumption or use.

Section 10.—(1) If, in the opinion of a Chief Municipal Health Officer or of any officer appointed by the Governor for the purpose of this section, there is any reasonable ground for suspecting that any person is in possession of any food or drug or other substance for the purpose of sale or of manufacturing or preparing the same for sale in breach of this Ordinance, he may require such person to produce to any specially authorized officer any books or documents dealing with the reception, possession, purchase, sale or delivery of any such food or drug or other substance.

Section 11.—(1) Any person commits an offence who sells

- (a) any adulterated food or adulterated drug without fully informing the purchaser at the time of the sale of the nature of the adulteration;
- (c) any food or drug containing any substance the addition of which is prohibited by regulations made under this Ordinance;
- (d) any food or drug containing a greater proportion of any substance than is permitted by the regulations made under this Ordinance;
- (f) any food which is unsound or unfit for human consumption.

Section 1.—*Presumptions of Law.*

Section 16.—For the purposes of this Ordinance any food or drug shall be deemed to be adulterated if

- (a) it contains or is mixed or diluted with any substance which diminished in any manner its nutritive or other beneficial properties as compared with such article in a pure and normal state and in an undeteriorated and sound condition, or which in any other manner operates or may operate to the prejudice or disadvantage of the purchaser or consumer;
- (b) any substance or ingredient has been extracted or omitted therefrom by reason of such extraction or omission the nutritive or other beneficial properties of the article as sold are less than those of the article in its pure and normal state or the purchaser or consumer is or may be in any manner prejudiced;
- (c) it contains or is mixed or diluted with any substance of lower commercial value than such article in a pure normal state and in an undeteriorated and sound condition;
- (d) it does not comply with the prescribed standard.

*Legal Proceedings and Evidence.*

Section 20.—(1) All proceedings in respect of an offence against this Ordinance or of a breach of any regulation made thereunder shall be taken in a summary manner before a Police Court.

- (4) When any article of food or drug has been purchased or procured from any person for test purposes no proceedings in respect of the sale thereof or of any offence against this Ordinance shall be instituted after the expiration of twenty-eight days from the time of purchasing or procuring the same.

*Regulations and Supplementary Provisions.*

Section 28.—(1) The Governor in Council may make regulations

- (a) to prescribe the standard of strength, weight, quality or quantity of any food or drug or of any ingredient or component part thereof;
- (b) to prohibit the addition of any specified thing or of more than the specified quantity or proportion thereof to any food or drug;
- (c) to prohibit any modes of manufacture, preparation, or preservation of any food or drug;
- (d) to secure the cleanliness and freedom from contamination of any food or drug in the course of its manufacture, preparation, storage, packing, carriage, delivery, or exposure for sale and to secure the cleanliness of places, receptacles, appliances and vehicles, used in such manufacture, preparation, storage, packing, carriage or delivery;
- (e) to prescribe the mode of labelling food or drugs sold in packages and the matter to be contained or not to be contained in such labels;
- (f) to prescribe the method of analysis of any food or drug and form of certificate of analysis;
- (g) to fix the fees to be paid in respect of the analysis of any food or drug by an analysis;
- (h) to prohibit the sale advertisement for sale or importation of specified articles which are either dangerous or unsuitable as articles of food or medicine;
- (i) to prohibit the sale of specified articles of food otherwise than by weight;
- (j) to require all poisons contained in any medicine proprietary, secret or otherwise to be disclosed in the prescribed manner and form and with the prescribed particulars at or prior to the sale thereof;
- (k) to prescribe fines not exceeding 500 dollars for the breach of any regulation; and
- (l) generally to carry out this Ordinance.

Section 29.—The provisions of this Ordinance so far as they are applicable shall extend and apply to tobacco, cigars, and cigarettes in like manner as the said provisions apply to drugs.

## REGULATIONS.

## PART II.

## SPECIAL REGULATIONS.

20.—*Spices and Condiments.*

General standard for spices and condiments.

- (1) Spices and condiments shall be sound, aromatic, vegetable substances used for the seasoning of food, from which no portion of any volatile oil or other flavouring substance naturally contained in them has been removed.

*Cloves.*

- (5) Cloves shall be the dried flower buds of *Eugenia caryophyllata*. They shall not contain any exhausted cloves, or partly exhausted cloves, or any foreign vegetable or mineral substance nor more than five parts in one hundred parts by weight of clove stems.

34.—*Essences.*

- (6) *Vanilla*.—Shall be the dried fruit of *Vanilla Planifolia* containing the odoriferous principle of aldehyde known as "vanillin."
- (7) *Vanilla Essence*.—Vanilla essence shall be an alcoholic extract of vanilla and shall conform with the general standard of essences.

34. (8) *Vanilla Substitutes*.—There shall be written in the principal label attached to every package containing a substance which consists wholly or in part of a substitute for vanilla or for vanillin the words "Imitation Vanilla."

- (9) The word "Vanilla" shall not be written in the statement or label attached to a package containing a substance which consists wholly or in part of a substitute for vanilla unless conjoined with the word "Imitation" in the following form "Imitation Vanilla."



**APPENDIX H.**  
**RECORD OF ANALYSIS OF SAMPLE OF CLOVE, ETC., FROM BRITISH MALAYA MARKETS.**

No.	Nature and quantity of foreign matter %			Oil % on Cloves free from foreign matter	Price Rs. p. fras.	Wholesale	Cloves picked over
	Genuine Stem	Mainly Exhausted Stem	Other foreign matter			Retail	
1.	—	100	—	—	24 cents (Straits Dollar) per 1½ lbs.	Retail	Broken Clove Stem exhausted containing no oil
2.	—	100	—	—	18 cents (Straits Dollar) per 1½ lbs.	Retail	Exhausted Clove Stem
3.	3.96	—	0.29	16.8	46 cents (Straits Dollar) per 1½ lbs.	Retail	Zanzibar Cloves. Dull in colour. Many withered buds
4.	—	19.9	1.05	17.1	32 cents (Straits Dollar) per 1½ lbs.	Retail	Zanzibar Cloves. Dull in colour. Adulterated with exhausted stem
5.	3.61	—	0.15	17.1	32 Dollars (Straits Dollar) per 133 lbs.	Wholesale	Zanzibar Cloves. Good. Dull in colour
6.	3.87	—	0.40	16.8	31 Dollars (Straits Dollar) per 133 lbs.	Wholesale	Pemba Cloves. Dull colour. Small buds
7.	0.35	—	0.03	15.0	60 cents (Straits Dollar) per 1½ lbs.	Wholesale	Penang Cloves. Good, bright, fat Cloves. Artificially dried
8.	5.38	—	0.43	15.5	50 cents (Straits Dollar) per 1½ lbs.	Wholesale	Penang and Sumatra mixed(?) (Maybe all Sumatra.) Good, bright, long Cloves. Dried artificially
9.	—	14.9	1.9	14.7	not obtained	—	Zanzibar Cloves ex Bombay. Very poor, dark colour, withered. Adulterated with exhausted stem
10.	9.0	—	0.27	15.2	49 cents (Straits Dollar) per 1½ lbs.	Wholesale	Mixed Cloves. Penang and ? Good sample. Artificially dried. Dark colour and large percentage headless
11.	—	—	—	13.7	Valued at 1/7 per lb. London spot terms	Wholesale	Penang Cloves, graded first quality. Bright, long and fat buds. Artificially dried. The sample contained 5 small pieces stem
12.	—	20.5	1.17	15.8	Not obtained	—	Zanzibar Cloves ex Bombay. Poor, rather dark colour. Adulterated with exhausted stem
13.	0.69	—	0.09	13.1	60 Dollars (Straits Dollar) per 133 lbs.	Wholesale	Good, bright, red in colour. Sardang (Government Plantation) production. Artificially dried

Samples Nos. 1- 6 Collected in Singapore.

Samples No. 7-12 Collected in Penang.

Sample No. 13

Government Plantation, Sardang.

APPENDIX I.

RECORD OF ANALYSIS OF SAMPLES OF CLOVES FROM DUTCH EAST INDIES MARKETS.

No.	Nature of quantity of foreign matter %			Oil % on Cloves free from foreign matter	Price Rs. p. fras.	Cloves picked over	
	Genuine Stem	Mainly Exhausted Stem	Other foreign matter			Wholesale	Retail
1.	1.19	—	0.58	17.75	Not quoted	—	Rather dull in colour. Numerous headless buds. Fat Cloves showing many picked too ripe Rather dull in colour. Good fat Cloves
2.	0.87	—	0.062	19.70	Not quoted	—	

CLOVE CIGARETTES.

SAMPLE EXAMINATION.

Sample No. 1 contained 40.2 per cent. of cloves mixed with tobacco.

Sample No. 2 contained 43.0 per cent. of cloves mixed with tobacco.

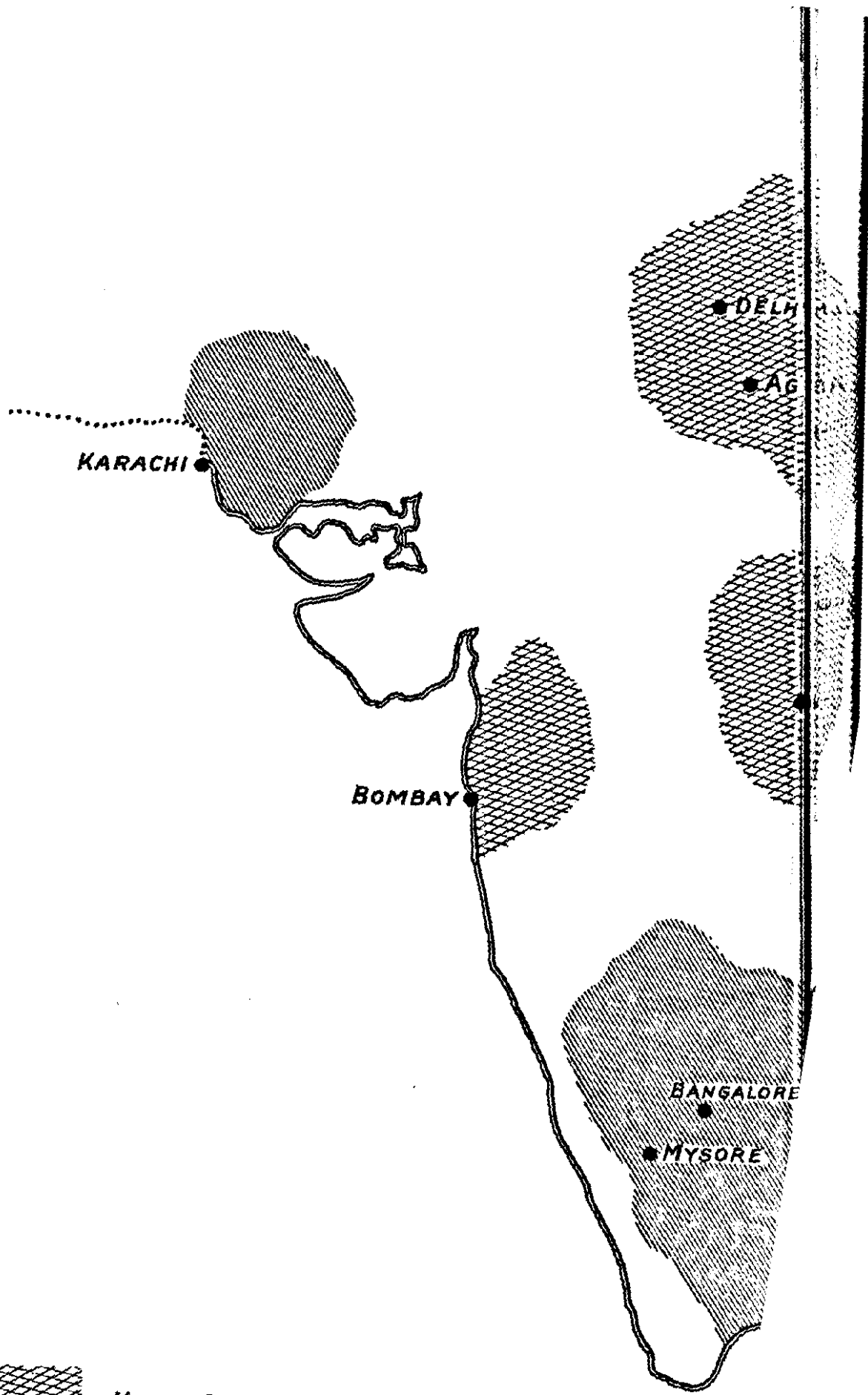
## APPENDIX J.

STATEMENT GIVING THE FREIGHT AND INSURANCE RATES OF CLOVES FROM ZANZIBAR TO THE MAJOR ENTRY PORTS REFERRED TO IN THE REPORT.

Zanzibar to	Freight rate	per ton of	Insurance rate
Bombay ... ..	Rs. 40	20 cwts.	W.P.A. 5/3
Calcutta ... ..	Rs. 43	20 cwts.	W.P.A. 6/9
Rangoon ... ..	Rs. 50	20 cwts.	W.P.A. 6/9
Madras ... ..	Rs. 47	20 cwts.	W.P.A. 6/9
Karachi ... ..	Rs. 47	20 cwts.	W.P.A. 6/9
Colombo ... ..	Rs. 47	20 cwts.	W.P.A. 6/9
Penang ... ..	Sh. 80	20 cwts.	} 6/3% direct 8/9% transhipment
Singapore less 10% ...	Sh. 75	20 cwts.	
Batavia ... ..	Sh. 80	20 cwts.	} 6/9% direct 8/9% transhipment
Semarang... ..	Sh. 80	20 cwts.	
Sourabaya ... ..	Sh. 80	20 cwts.	
Hong Kong ... ..	Sh. 100	20 cwts.	W.P.A. 6/6

NOTE.—All freight rates quoted are rebatable with the exception of Bombay and Singapore. Insurance rates quoted for W.P.A., W/Warehouse, loading and landing craft risks, if any. Also war risk.





KARACHI

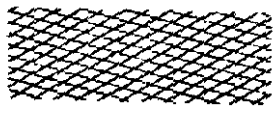
DELHI

AG

BOMBAY

BANGALORE

MYSORE



*Heavy Consumption*

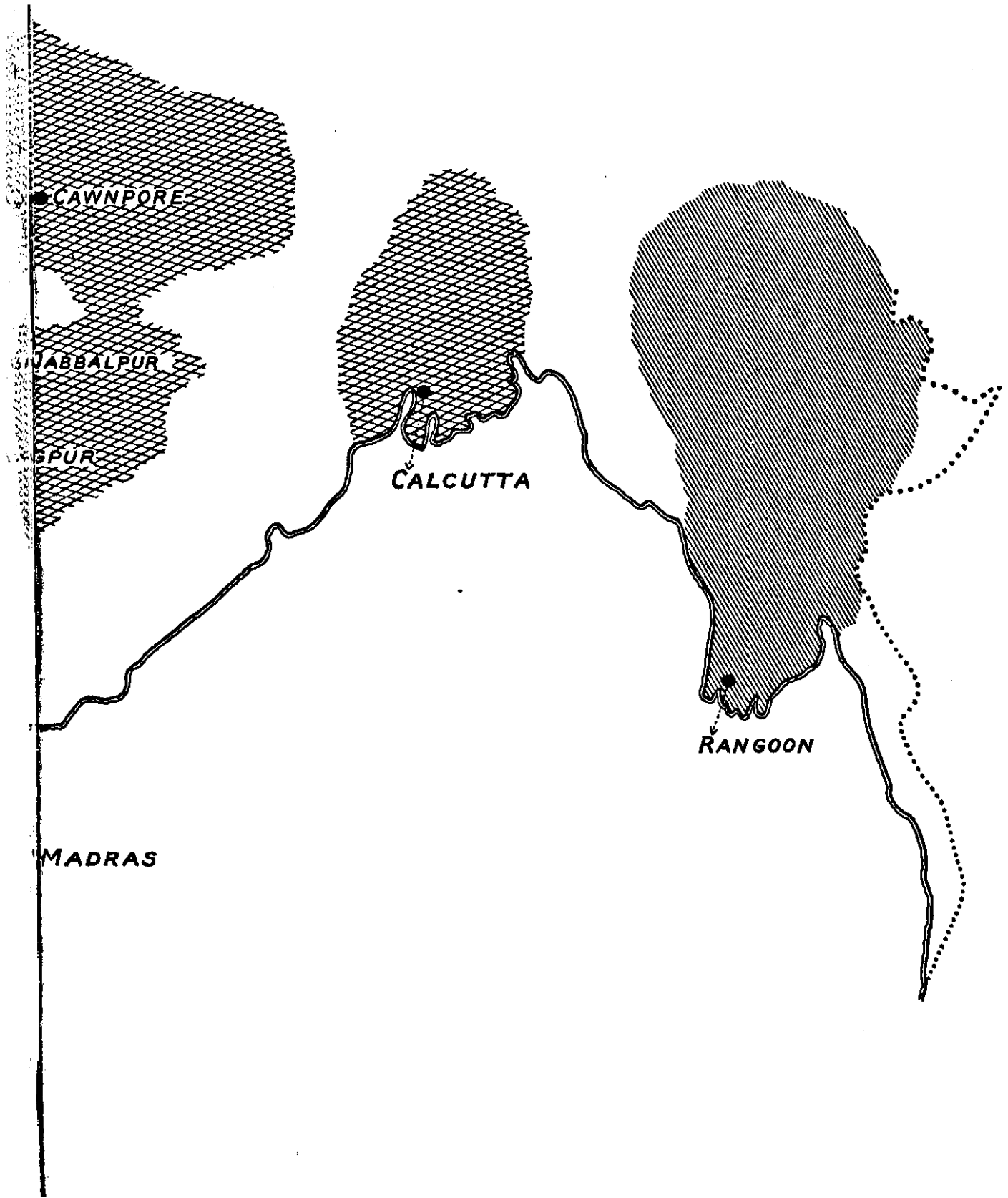


*Light Consumption*

# INDIA AND BURMA

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ZANZIBAR PROTECTORATE.

THE CLOVE INDUSTRY  
OF MADAGASCAR

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REPORT OF A VISIT TO MADAGASCAR

BY

A. J. FINDLAY, M.A. B.Sc. (Agr.)  
*Director of Agriculture, Zanzibar.*

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# THE CLOVE INDUSTRY OF MADAGASCAR.

## Report of a Visit to Madagascar by the Director of Agriculture, Zanzibar.

*September to November, 1933.*

### GENERAL.

A study of the Clove Trade in all its aspects would be incomplete without information concerning the position of the clove industry in Madagascar which now ranks next in importance to Zanzibar as a supplier of cloves and clove oil in the world's markets. It was therefore with the object of studying the position on the spot and comparing methods of cultivation and production with those in vogue in the Zanzibar Protectorate that I proceeded to Madagascar on the 18th of September, 1933.

I arrived at Tamatave, the principal port of Madagascar on the 27th of September and proceeded to Tananarive two days later with the object of calling on the British Consul, reporting to His Excellency the Governor-General and making the necessary arrangements for the conduct of my investigations. I remained at Tananarive collecting information and making a study of agricultural activities and production in Madagascar in relation to the clove industry until the 11th of October when I returned to Tamatave to meet Monsieur Ledreux, Ingénieur en Chef des Travaux d'Agriculture, Région de Tamatave, who was to conduct me on a tour of the clove-producing areas. After a brief visit to Vatomandry in the southern portion of the Région we returned to Tamatave and proceeded on the 18th of October on an intensive tour of the Fenerive, Soanierana, and Sainte Marie areas, returning to Tamatave on the 6th of November. I returned to Tananarive on the 10th of November in order to report to His Excellency the Acting Governor-General and discuss my investigations with the Chef de Service d'Agriculture, and on the 16th of November I proceeded overland to Majunga to join the steamer for Zanzibar which I reached on the 21st of November.

### THE MADAGASCAR CLOVE AREAS.

The accompanying sketch map—appendix I—shows roughly the distribution of the clove-producing areas which are very small in relation to the area of the whole island, but extensive when compared with even the total area of the islands of Zanzibar and Pemba. The areas near to and south of Tamatave are small and comparatively unimportant. Although there are a few clove trees near Fort Dauphin which produced a maximum of 84 kilos (frasilas 5-10 lbs.) in 1924, the limit of the productive area may be taken as Manakara which exported 1,700 kilos (107 frasilas) in 1932. Conditions for clove production improve as one proceeds north along the east coast; Mananjary exported 7,400 kilos (466 frasilas) in 1931, a year of high production and 3,482 kilos (219 frasilas) in 1932. The area round Vatomandry is regarded as being well suited to clove production. My visit to that area confirmed that opinion. I was particularly impressed by an area of young trees planted in the higher parts of the coffee estate of Monsieur Raud. These trees were well shaped, branching from almost ground level, and were carrying a good uniform crop of cloves, even on internal branches. They had been topped several years ago to restrict growth in height. They were ring-weeded, but not cultivated and grass was allowed to grow in the interlines.

The cost of picking was considered expensive; 3 francs (approximately 9 annas) for 10 kilos (22 lbs.) of green cloves.

Vatomandry is essentially a coffee producing area; Robusta coffee grows very well on the lower alluvial soils and good clove trees could be reared on the red soils of the higher areas, but coffee being more profitable than cloves, the prospects of an extension of clove cultivation are definitely restricted.

Although Tamatave shows an export of cloves which reached 475 metric tons in 1931, production in that area is comparatively small. The export figures include shipments of cloves brought from other producing areas. Proceeding north, clove cultivation is scarcely seen until Fenerive is reached. There the clove trees are few in number and further production is not favourably considered because of the more extensive and more profitable cultivation of coffee.



The real clove area does not begin until the borders of the Soanierana District and the further one penetrates this area the more extensive becomes the production of cloves. This district is essentially the biggest and most important clove producing area in Madagascar. It is said that there are about four million clove trees in this area, and judging by the vistas one obtains from the higher levels of extensive and often close cultivation in the valleys and on the lower slopes of the hills, it would appear that this estimate is not much in excess of the truth. Also one travels along miles of paths with their borders closely planted with clove trees.

Travelling north from Ampasi Mananjary, we passed through numerous scattered native plantations of good cloves and at Ampasi Manantsatrana we entered an extensive area of fine clove trees, many of which were only 10 to 15 years old, but all of which are entirely uncultivated and neglected, and bearing only a small crop this year. The price of cloves is so low that the owners have no incentive to tend their trees which are therefore surrounded by a heavy growth of low bush and coarse grass, giving the impression that the trees are growing more or less wild. From Ampasi Manantsatrana to Fotsialana, the country, with the exception of the higher slopes of the hills, seems to be literally covered with clove trees. The river Marimbo, with its outlet at Soanierana town, flows in its lower reaches, through the most extensively planted clove area in the whole country. Many of the trees are from 15 to 20 years old, wonderfully vigorous in growth and with beautiful dense foliage, but being spoiled through too severe topping for the supply of leaves for distillation purposes. There was wide variation in the cropping of the trees; some were bearing heavily, but very many not at all, so that on the whole the crop was small. In a good year the crop should be a very considerable one. I was particularly impressed by the very fertile nature of this part of the country and its possibilities for agricultural production but the population is sparse, the country is very hilly and difficult and there are no made roads. In the wet season the existing paths become practically impassable and the numerous rivers swell so greatly that at times they cannot be crossed with safety.

Vanilla production was once a very profitable item in the agricultural production of this area, but owing to the slump in prices, the vanilla plantations have now been abandoned.

The clove harvest, which lasts from about mid November to the end of December, was just commencing in this area. Cloves were being carefully picked and the resulting product was of a good uniform quality, and bright in colour. There was a general complaint amongst the native producers that the lateness of clove harvest did not allow of their utilising the clove crop for the completion of the payment of their taxes due in early December.

The production of Robusta coffee is extending but there is an evident lack of care and system in the planting and cultivation. The crop is attracting considerable attention as being more profitable than clove production, and is likely to have a considerable adverse influence on the clove output as there is not sufficient labour to operate both crops.

Passing from Fotsialana to the town of Soanierana, I had the opportunity of visiting the Vohibato estate of Monsieur Conuil, who has been forced to abandon cultivation in his clove areas owing to the low prices obtainable for his cloves. I was particularly interested in an area of 24 to 27 years old clove trees which had been showing signs of "die-back" and were topped three years ago. The effect of the topping had evidently been beneficial for the trees were showing signs of revival and bearing a reasonable crop.

Monsieur Conuil specialises in the production of ylang-ylang oil from a fine stand of trees on his estate, but low prices for his product has caused a temporary cessation of distillation for this oil.

All the area between Fotsialana and Soanierana town is extensively planted with clove trees, which were bearing very irregularly. Some fine old trees near the town were bearing very heavily while others carried no crop at all.

Soanierana town, once a prosperous trading centre, has fallen on evil days since the slump in the vanilla trade, and the fall in clove prices. It is the outlet for the clove crop of the greater part of the Soanierana District, the cloves being consigned to Sainte Marie for shipment.

At the time of my visit the first of the new crop of cloves was being bought at 1.75 francs per kilo (Rs. 4.63 cents per frasila); a price which has since fallen to 1.50 francs (Rs. 3.97 cents per frasila).

It is estimated that there are about one hundred small distilleries operating in the district and producing clove leaf oil, which is of a good standard quality, but worth only 12 francs per kilo (Rs. 2) at the present time.

Owing to the low value of cloves, the production of leaf oil is receiving increased attention. The owners of trees find that they can get a quicker and easier return by hacking off the tops of their clove trees, bundling up the cut branches and leaves and

transporting them to the local distilleries where they can obtain a cash price of 5 francs per 100 kilos (13 cents per frasila). This topping, which is almost invariably too severe, is proving very detrimental to the clove trees.

The route from Scanierana proceeded inland again to Ambodiampana where the ravages of a stem borer were reported. Investigations proved that this borer was doing extensive damage to the clove trees in this area, particularly to young trees, many of which were dying as a result of the borer attack. The presence of this borer was evidently confined to a comparatively small area. •

The intensity of clove cultivation decreased as one proceeded northwards to Manampana, and very decided decrease in bearing was noticed. The population in this area is very sparse.

The country behind Manampana is heavily forested and more suited to timber than clove production, although even the former is being abandoned, as was evidenced by the presence of a large sawmill which has ceased operations. Vanilla was once an important and profitable crop in this area.

Situated at Manampana is a steam operated distilling plant which is utilized practically entirely for the distillation of clove stems, which are bought locally and also imported from Sainte Marie in considerable quantity as the existence of a cheap and convenient fuel supply at Manampana cheapens distillation as compared with Sainte Marie where fuel is scarce. About 75 tons of stems were treated during the 1932-33 crop season.

Proceeding still north to Anove and Antanambe it is evident that this heavily forested country becomes still less suitable for clove production. The clove tree grows very well, but the high rainfall encourages the growth of foliage at the expense of fruit and if the rainfall is heavy at the critical period—April-May—when bud formation takes place, only leaf buds are formed instead of flower buds and the consequence is a negligible crop. This effect was well illustrated on the estate at Antanambe of the late Monsieur Le Conte, where the clove areas, containing about 8,000 finely developed trees, were bare of any crop. It is said that a clove crop is obtained in this area only once in every three years. The same conditions prevail as far north as Maroantsetra, which is the northern limit of the east coast clove-producing areas. The rainfall at Maroantsetra for the months of March, April and May, 1933, was 811.8, 391.4, and 406.7 millimeters respectively (31.96, 15.35 and 15.97 inches respectively). The estimated crop for this area for the 1932-33 season is only 50 tonnes. This heavily forested area of high rainfall is obviously not suitable for profitable clove production; coffee promises well and vanilla was formerly produced very successfully. The Le Conte estate contains what was once a fine vanilla plantation, now abandoned. This part of the country is very sparsely populated and the assistance of the Government has to be sought in order to obtain sufficient labour for agricultural concessions. Communications are difficult owing to numerous rivers and the very hilly nature of the country, steep rocky land extending right to the sea. The country, although very fertile and heavily forested, gives one the impression of neglect and depression.

From Antanambe, the northern limit of the tour of the clove areas, we returned by the coast to Pointe à Larée, from which we crossed to the Island of Sainte Marie, where the Madagascar clove industry had its beginning. A stay of three days on the island allowed of a rapid but fairly intensive survey of the clove areas, which occupy only the fringes of the island. The higher lands in the interior are practically barren, and bear only grass and *Ravenala* palms.

To the south of Ambodifotra, the capital and port of the island, there are numerous scattered clove plantations of varying quality, and near the extreme south is an estate owned by Monsieur Gentet. The east side of the estate, overlooking the Indian Ocean, is very much exposed and wind swept with the result that the clove trees are in poor condition, which demonstrates the necessity for sheltering clove trees from continuous strong winds, particularly drying winds. A wind break of *Eucalyptus robusta* has recently been planted along the ridge. The poor condition of the exposed trees has in my opinion, been accentuated by too severe topping for leaf oil distillation. On the west side of the ridge the trees were better, but unfortunately had been planted under too dense shade of mango and jack-fruit trees, which Monsieur Gentet is now removing with good effect on the clove trees. The clove trees on this estate are entirely uncultivated. It was on this estate that Monsieur Plaine initiated about 1911 the distillation of clove leaves for oil production. His successor, Monsieur Gentet, continued the work, and now distills extensively; in fact he is more interested in distillation than in clove production. His own estate provides only a small proportion of his supplies, the bulk of which is bought from native producers.

The 1933 crop, the harvesting of which commenced at the middle of October, was a poor one in the south of the island.

On the west coast, north of Ambodifotra, there is fairly extensive planting, mostly badly done and now entirely uncultivated. The trees vary much in age and condition, and amongst the older trees there is a considerable amount of "die-back", due to soil exhaustion accentuated by lack of cultivation and topping and dry-fallen-leaf collection for distillation purposes. The soil itself is not particularly fertile and cannot stand up to such continuous depletion of its resources.

I had the opportunity of visiting the estate of Monsieur Bouvier-Gaz, situated 18 kilometres north of Ambodifotra. This estate is only partly developed so far, as the owner finds it more profitable to concentrate on the distillation of leaves and stems, mostly purchased from outside sources.

Native-owned clove plantations are established all along the west coast until within a short distance of the extreme north of the island, near which there is a coconut plantation which was planted by a French colonist. Coconuts on the east coast of Madagascar and in Sainte Marie generally do not bear well; curiously enough this plantation of fine healthy trees was bearing heavily.

The general impression of the clove trees on the west coast, which constitutes the main producing area of the island, was that the trees were very mixed in condition, size and bearing capacity. They are generally very free from disease, only a few cases of "sudden death" or "apoplexy", as it is called in Madagascar, being noticeable, but "die-back" is rapidly extending, especially where rather poor soil is being further impoverished by leaf sweeping, topping and lack of cultivation. Some trees were bearing well, but on the whole the crop was below average. Sainte Marie had a heavy rainfall in the earlier months of the year.

On the east coast one finds only patches or strips of clove trees planted between the lower slopes of the barren uplands and the sea. Some very good trees were seen, but generally spoiled by too close planting; very few young trees were evident. Cropping was variable, but under average. Topping and leaf sweeping prevail here also.

At the time of my visit, the clove harvest was well advanced and was calculated to finish about the middle of December. The quality of cloves already sold and in course of preparation was very good and uniform, the colour being bright and the percentage of broken heads, over-ripe buds and stems being small. Picking is done carefully and over-ripe buds are not generally picked; in fact there is a tendency to pick cloves which are rather under-ripe. Long ladders made from the mid ribs of *Raphia* palm leaves are used to facilitate picking and branch breaking is infrequent. Thus it is seldom one sees a clove tree mutilated in the manner of those in Zanzibar and Pemba.

Drying is carried out on mats on the ground, and is complete in two to two-and-a-half days during the greater part of the harvesting season. This rapid drying is due to plenty of sun in an unclouded sky, a dry atmosphere and drying winds; this is a great advantage in that a uniform bright reddish brown colour is obtained in the dried cloves.

The price of cloves in Sainte Marie at the beginning of November was 2 francs per kilo (Rs. 5.24 per *frasila*). Stems are not exported but sold to the local distillers at 30 centimes per kilo (79 cents per *frasila*).

Labour conditions in Sainte Marie are definitely peculiar. The local people will not engage themselves as labourers with settlers or even native planters who own areas of cloves too large to be worked by their families. The result is that the planters are entirely dependent on convict labour which is supplied at the standard rate of 2.25 francs (37 cents) per man. The convicts allocated live more or less permanently on the estates of the settlers and planters, but are fed by the Government. All Public Works are carried out by convict labour, and even European Officers and planters have to depend on this labour for their domestic staffs. To a stranger, the position seems economically unsound, for if convict labour were not available, the clove industry in Sainte Marie would be badly hit and come near to complete failure.

At the present time Sainte Marie is suffering much from the depression in clove and clove oil prices, because the island is entirely dependant on its clove industry. There are no other export crops and food production is carried out only on a small scale, and that not very successfully on a rather poor soil. Also the local people are neither ambitious nor diligent.

As regards the clove industry, my impressions of the future prospects are not favourable. Although cloves have been grown successfully, the general fertility of the island is not high, and evidently all the available land suitable for clove production has been planted up. As already mentioned, the resources of the soil are rapidly being depleted by lack of cultivation, the utilization of fallen leaves for distillation and by the topping of trees and the annual reaping of the crops, in respect of which nothing is returned to the soil. The

present condition of the trees clearly indicates gradual depreciation which will become very serious if present practices and conditions are allowed to continue. It would be very difficult indeed to find a suitable alternative crop should the clove industry fail.

The visit to Sainte Marie completed the survey of the clove areas; the four days' journey through Soanierana and Fenerive to Tamatave followed the coast line and was of little interest agriculturally.

A detailed itinerary is given in Appendix II.

## ASPECTS OF THE CLOVE INDUSTRY IN MADAGASCAR.

### The Clove Trees.

**Planting and Maintenance.**—One cannot but be impressed by the extraordinary virility of the trees growing under semi-wild conditions. Planting in the first instance is carried out in a primitive way; lines are roughly cleared in the "bush" and plant holes prepared for the reception of the clove seedlings which are generally 18 months to two years old at the time of planting. These may have been reared in the nursery bed, but more often they are natural seedlings removed from underneath old trees. The recommended planting distance is 8 metres, triangular, but actual planting is anything from 4 to 8 metres, sometimes in regular lines, but more often irregular. Almost invariably the planting is too close with the result that the branches of the trees are meeting and often interlacing by the time the trees have reached the age of 20 years. In the areas of high rainfall, the trees produce abundant foliage with a wide lateral spread.

The young trees in native plantations receive no cultivation but are simply left to compete with the undergrowth, which they seem to do successfully, thanks to the fertile nature of the soil. On the larger plantations established by colonists and settlers, the ground is more thoroughly cleared in the first instance and the undergrowth is occasionally cut back. Proper cultivation of the soil is practically unknown. Much planting has been done on the borders of the roads or paths; a certain amount of clearing of the undergrowth is thus secured when the paths are cleaned periodically. In this way miles of avenues of clove trees have been established. When the bearing stage is reached, some rough clearing round the trees may be done to facilitate picking. In places, such as Sainte Marie, where fallen leaves are collected for distilling, the area under the trees is kept clear of strong weed-growth, but not cultivated. Inter-planting with coffee has been tried and proved unsuccessful; thus clove plantations are almost invariably pure; a few inter-planted coconuts are sometimes seen.

**Soil and Situation of Clove Plantations.**—The clove tree thrives on a variety of soils, but generally the lateritic soils which occur on the lower slopes of the hills are preferred. Thus the majority of the plantations are to be found on hillsides. Alluvial soils on the banks of rivers are sometimes chosen and carry excellent clove trees, provided that the soil is not too wet and has natural drainage, but the alluvial flats are generally reserved for coffee planting.

Exposed situations are avoided, partly because of the danger from cyclones, which, however, are infrequent in the principal clove areas. Thus the lower slopes of the hills along the valleys are the favourite situations for clove planting.

**Climatic Conditions.**—There is a great variation in the climatic conditions prevailing throughout Madagascar. In the extreme north, at Diego Suarez, there is a prolonged dry season, lasting often for eight or nine months, and similar conditions prevail in the extreme south. Generally speaking the west coast is dry and the east coast is the area of heavy rainfall, which exceeds 3,000 millimetres (118 inches) per annum between Mananjary in the south-east and Maroantsetra in the north-east. That includes the clove area. Appendix III gives details of rainfall in inches for 1930, 1931 and 1932 at Sainte Marie and comparative figures of rainfall for Zanzibar and Pemba. Relative humidity is high during the period of heavy rains in the clove areas, where the seasons are more or less regular, the wet season lasting from December to August and the dry season from September to November inclusive. Generally the rains commence in December and increase in intensity until March or April; after that there is a gradual decline until the commencement of the dry season in September when there may be some light rains. October and November are the driest months, when the weather is clear with plenty of sunshine and drying winds. Thus there is a long and continuous growing season and a short dry spell, the result of which is that vegetative growth in the clove tree is encouraged at the expense of fruit production, and to such an extent in the Antanambe-Marantsetra area that no crop is set in years when the rainfall is excessive at the critical period of bud formation

about April and May. The general effect of high rainfall is that Madagascar clove trees do not bear so heavily or so consistently as those in Zanzibar and Pemba where the smaller rainfall coming in two periods—the "Masika", April to June and the "Vuli", October to December—with intervening dry seasons, definitely encourages flower bud formation.

Similar conditions have been noted in Malaya; at Singapore, clove trees show normal growth but never produce buds, while at Penang, about 380 miles away, clove production is an important industry. The explanation given is that the climate of Singapore is uniformly moist while in Penang there are dry periods just as in Zanzibar, which provide the necessary stimulus to flower bud formation.

The Madagascar clove trees are therefore finer looking trees, carrying abundant foliage as compared with the Zanzibar and Pemba trees, but they are, on the average, definitely less productive.

**Pests and Diseases.**—Madagascar clove trees are wonderfully free from pests and diseases. Casualties due to "sudden death" or "apoplexy" as it is called in Madagascar, are infrequent. The incidence of this disease is less than in the Zanzibar Protectorate, but the origin and cause, yet unknown and under investigation in both places, are obviously the same.

A large branch borer was found in the Ambodiampana District and was seriously damaging young trees, but fortunately its ravages are confined to a comparatively small area. This borer has not yet been identified.

The Clove Chafer is unknown in Madagascar.

"Die-back", which is so common here, is found also in Madagascar. The small incidence of this tree condition on the fertile soils of the Mainland and its prevalence on the poorer soils of Sainte Marie strongly supports the contention that this condition is due to soil impoverishment or exhaustion and not to any specific pest or disease. Monsieur Ledreux, who has a very extensive knowledge of the clove industry in Madagascar is of the same opinion, as were also planters and native owners.

### CROPPING.

Wide variations in cropping exist in Madagascar as in Zanzibar, but there is no evident relation between the occurrence of the variations as can be seen in the following table of comparative seasonal production:—

	Madagascar.	Zanzibar and Pemba.
1925-26	1131 Tonnes	9559.50 Tons
1926-27	40 ..	11453.50 ..
1927-28	1296 ..	10793.00 ..
1928-29	357 ..	3133.88 ..
1929-30	580 ..	14514.73 ..
1930-31	3307 ..	3955.00 ..
1931-32	9128 ..	14622.75 ..
1932-33	1920 ..	7615.00 ..

There is a definite periodicity in flowering in Madagascar, and the rainfall during the flowering period has a decided influence on the amount of the subsequent crop, but yet the variations in rainfall are not sufficient to explain the wide variation in crop production. A heavy rainfall during the 1933 flowering period is given as the reason for the short crop in Madagascar this year, but there are undoubtedly other unknown factors in operation.

Trees in Madagascar begin to bear about the fifth year, but it is not until the eighth year, that there is an appreciable crop. The age of full maturity is doubtful, and it is considered that about 60 years is the limit of the age of economic production, although there are trees in Sainte Marie which are reputed to be over 100 years old and still bearing well.

It is practically impossible to obtain a reliable figure for average yield per tree in Madagascar, because only a varying proportion of the crop per tree and the total crop as carried by the trees is harvested; there is an enormous variation in individual tree cropping—from no crop to heavy bearing—in any one year; there are no reliable tree yield records from any plantations and the clove areas are so wide but yet scattered that a tree census is unobtainable and so cannot be used to correlate with annual production in order to give even an approximate figure. An endeavour to elicit information produced only widely varying figures. Sixty year old trees in Sainte Marie have been reputed to produce 50 kilos of dry cloves per tree in one season; I regret that I must doubt this information. There is a record of 3,000 trees, 15 years old, having given 3 kilos per tree in a big crop year, which is quite possible. Taken all over, it would appear to me that the average production per tree, i.e. the crop actually carried, not necessarily harvested, is about 2 kilos (4½ lbs.)

per tree in a good year and much less taken as an average over a period of years. The following figures obtained at the Agricultural Station at Ivolina, near Tamatave are interesting.

Ten kilos of unstemmed green cloves gave:—

7.96	kilos green cloves,
2.04	.. stems,
2.96	.. dried cloves,
0.75	.. dried stems,

i.e. 8.87 kilos of green cloves were required to give one kilo dried cloves; therefore the loss in weight on drying was 70.32% as compared with a Zanzibar average of 67%.

### HARVESTING.

Harvesting in Sainte Marie commences about the middle of October, a month earlier than at Soanierana on the mainland opposite. This is due to variation in situation and climatic conditions. The harvesting period lasts for two to two-and-a-half months. A few buds may develop later, but strictly speaking there is only one crop per year. Long ladders, made from the mid ribs of *Raphia* palm leaves, are used to facilitate picking, and cross sticks are tied on the higher branches to form a sort of a scaffolding from which the picker can operate. In this way branch breaking is reduced almost to the minimum and in the majority of cases, picking is done carefully. There is a tendency to pick rather under-ripe clove buds along with those which are at the right stage of ripeness and leave the buds which have already opened. This produces a sample of dried cloves with a high percentage of unbroken heads and therefore more uniform in that respect, although the under-ripe buds are rather smaller in size. Picking and destemming are carried out more carefully than in Zanzibar and Pemba and the final result is a more uniform sample of cloves the average quality of which is higher than that produced here where clove buds in varying stages of ripeness are picked together. There is practically only one quality of cloves in Madagascar, and that is superior to our Bombay quality. On plantations where hired labour is employed, pickers are paid daily or monthly rates and the rate of picking is said to be 15 to 25 kilos (i.e. 8 to 14 pishis) of green cloves per day for a good picker as compared with an average of 10 pishi for Zanzibar. In a good harvest, a good Zanzibar picker can pick up to 20 pishi per day. It is difficult to assess the real cost of picking in Madagascar as labour rates vary; one planter reckoned that it cost 3 francs (about 32 pice) to pick 10 kilos (about 5½ pishi), which is a high rate as compared with Zanzibar even allowing a picking rate here of 5 pice per pishi. Other rates quoted were 2.45 francs per day and 45 francs per month plus a daily rice ration of about 900 grammes. The usual practice is to fix a daily or monthly rate and allow a daily ration of 900 to 1000 grammes of rice; labour costs will therefore vary in accordance with the price of rice which fluctuates considerably. When rice was at 30 cents per kilo, labour was comparatively cheap, but a rise in price to 1.25 francs per kilo, as occurred recently, makes labour comparatively expensive. Convict labour in Sainte Marie costs 2.25 francs per day. The general impression I formed was that labour rates were on the whole slightly higher than here.

### DRYING.

The invariable practice is to dry cloves on mats laid out on cleared spaces close to the houses of the owners. There are no concrete drying floors and no methods of artificial drying are employed. It is very fortunate for the clove industry of Madagascar that the period of harvesting coincides with the driest period of the year when there are almost cloudless skies, a clear atmosphere and drying winds. Rapid natural drying is therefore assured and the effective drying period may be as short as 2 to 2½ days. The result of this natural rapid drying is a uniformly bright sample of cloves, satisfactorily dried without any loss in essential constituents. Rapid artificial drying on copra kilns as tried here was found to necessitate high temperature in the kilns and a consequent loss of essential oil.

### AREA UNDER CLOVES AND PRODUCTION.

Various estimates have been given of the total area under cloves, e.g. 16,181 Hectares (approximately 36,000 acres) in 1926, but there is not sufficient information available to allow of the framing of any estimate that could be regarded as nearly reliable. If there are about four million clove trees in the Soanierana area, then there are probably fully one million more trees in all the other areas taken together, giving thus a total of about five million trees. Taking this estimate as approximately correct and calculating on an

average production of 2 kilos ( $4\frac{1}{2}$  lbs.) per tree in a good crop year, Madagascar could produce about  $6\frac{1}{2}$  lakhs of frasilas or approximately 10,000 tons of cloves in a good year. My own estimate of the maximum crop is about 8,000 tons (fully 5 lakhs of frasilas); that is the crop as carried on the trees, but only half of that would be picked and sold, so that my estimate for maximum actual production is 4,000 tons ( $2\frac{1}{2}$  lakhs of frasilas).

In my estimate of maximum output, it will be observed that I calculate that only 50% of the actual crop will be harvested. This is a peculiar state of affairs, but nevertheless true, and there are several factors operating to produce this peculiar condition in the clove industry. The first and most important factor is that there are more clove trees than the people can deal with; that is to say the clove areas are overplanted with clove trees. A comparison of the clove tree and population figures for the Soanierana area with those of Pemba will serve to illustrate this. The total native population of the Soanierana area is 19,338, and it is estimated that there are nearly 4,000,000 clove trees in that area, while the African population of Pemba is given as 73,318 to an estimated 2,350,000 clove trees. If Pemba has to import about 13,000 additional pickers in a heavy crop year of 6 lakhs of frasilas or over, it is obvious that a population of less than a quarter of that in Pemba can deal with only a proportion of the crop of nearly four million trees.

Also Soanierana employs practically no imported labour for clove picking and has to operate other crops such as coffee and rice, cultivated on a more extensive scale than any of the secondary crops in Pemba.

The low price prevailing for dried cloves is another important factor in production at the present time. At a price of only 1.50 francs to 1.75 francs per kilo, equivalent to Rs. 4.30 to Rs. 4.63 per frasila, the people consider that it is scarcely worth while harvesting cloves, particularly so when they have coffee which is meantime more profitable.

The fact that the return from the clove crop comes too late in the year (December) for tax payments is also a deterrent to production; for once taxes are paid, the people take things easy, until they are called upon to make payments for the following year. The people are rather indolent and their material wants are few when money is not easily earned.

The foregoing applies to native producers only who are the owners of the vast majority of the clove trees. There are probably only four European settlers whose activities are partly devoted to clove production, but there is quite a number of Creole settlers who own clove plantations of varying sizes. They are assisted by the Government in obtaining their labour supplies if they desire such assistance, but at the present time they can scarcely afford to employ labour of any kind to work a clove crop which they say is unprofitable.

### LABOUR.

The inhabitants of the clove areas are Betsimisarakas who are rightly reputed to be indolent. As neither their numbers nor their energy are sufficient to operate their own clove trees, there is obviously no surplus available for employment on plantations as paid labourers, who therefore have to be recruited from such tribes as the Antaimoros and Antaisakas. The members of these tribes are hardworking and migrate long distances in order to find suitable employment. They supply the greater portion of labour employed on European and other estates on the east and north-east coasts. They do not settle on the estates, but having worked for one or two years and saved enough to buy some cattle, they return to their own country in the south east.

The labour rates vary considerably; in the towns, the prevailing rates are 3 to 4 francs (9 to 12 annas) per day, but on the estates the rate is usually a monthly one of 45 francs with a daily rice ration of 900 grammes. One European estate owner calculated that his labour was costing him 3 francs per day including the rice ration with rice at about 1.25 francs per kilo. He considered labour expensive at that rate. Another figure given for labour costs was 73.75 francs per month, which represented 40 francs and a daily rice ration of 900 grammes at 1.25 francs per kilo. The cost of labour therefore depends very largely on the price of rice which fluctuates considerably. With the price at 1.25 francs per kilo, labour is fairly expensive; a fall to 85 centimes per kilo makes the cost moderate, while a further fall to 30 centimes makes labour comparatively cheap. It is estimated that with rice at 30 centimes a kilo, a labourer can live well on 1.50 francs per day, which for a 30-day month is equivalent to 45 francs or  $7\frac{1}{2}$  rupees as compared with a minimum of 9 rupees in Zanzibar.

Hired labourers work ten hours a day; task or piece work is unusual.

European planters have to depend very largely on Government recruited labour, especially at their crop seasons. Application for labour is made to the District Officer who

arranges supplies for monthly periods. The planter considers himself very lucky if he obtains the full amount of his application. The labour problem is certainly a very difficult one and has a very decided influence on clove production.

**Marketing of Cloves.**—Native producers sell their cloves mostly direct to the European exporting firms, who are represented in a certain number of the villages. Many of the village stores of the European firms have been closed down since the slump in the vanilla trade, and Chinese traders have largely taken their place. The latter buy cloves either for sale to the European firms or on commission. The greater part of the clove crop is transported by the producers themselves and sold direct to the exporting firms at their stores at the ports.

**Clove Stems.**—Only very small quantities of clove stems are produced. They are all utilized for local distillation in the "alambics" which are used for the production of clove leaf oil. One double still at Manampana owned by a European firm distilled 75 tons of stems in 1932-33, mostly the product of Sainte Marie.

**Local Prices.**—At the time of my visit, the ruling price for cloves was 2 francs per kilo in Sainte Marie and 1.75 francs at Soanierana. Since then the prices have dropped to 1.75 francs and 1.50 francs respectively. The price of stems was 30 centimes per kilo. The corresponding prices in rupees per frasila are:—

2 francs per kilo	=Rs. 5-24 per frasila.
1.75 " " "	=Rs. 4-63 " "
1.50 " " "	=Rs. 3-97 " "
30 centimes " " (stems)	=Re. 0-79 " "

**Export of Cloves.**—All cloves are exported by European firms who pack them in jute bags containing 50 kilos nett. There is no inspection before export although it was proposed in 1930 to introduce a system of inspection or certification similar to that in operation for coffee. Grade or type 1 cloves were defined as—"dry cloves free from mustiness, containing less than 1% of foreign substances and less than 3% of stems".

Cloves were included in the list of products which were to be standardized under a Decree of 6th November, 1930, but were afterwards excluded as the export quality was so even that a system of standardization was considered unnecessary. A copy of the rules under the Decree is attached as appendix IV.

There is an export duty of 5% *ad valorem* levied on all cloves exported. For the purposes of this duty a value is fixed quarterly; for the period 1st October to 31st December, 1933, the value was fixed at 260 francs per 100 kilos. The actual value of cloves in early November, 1933, at the point of export in Sainte Marie was 200 francs per 100 kilos, and later 175 francs.

There is a premium on the export of certain products such as coffee, sisal, manioc and bananas but cloves do not participate in this benefit which really amounts to a rebate of export duty, with perhaps a small subsidy, according to the periodically-fixed rates.

The clove trade in Madagascar is conducted on simple and straight-forward lines. There is no local clove market as in Zanzibar; the shippers who are European merchants, buy the cloves as offered in small parcels by producers or Chinese traders and ship them as occasion offers; there is no attempt to hold stocks of cloves in Madagascar. Cloves are consigned to the buying firms' principals in France or to their agents who put them in the home market at their discretion. Consignments to other countries are dealt with in a similar way, being consigned to agents or brokers. Appendix No. V gives exports of cloves from Madagascar ports from 1920 to 1932 and appendix No. VI gives monthly exports for 1931 and 1932 and up to July, 1933.

An examination of the 1932 export figures is interesting and informative.

#### 1932 Exports.

847.423 tonnes to France
62.978 " " U.S.A.
26.500 " " Germany
19.400 " " London
13.308 " " British India
8.333 " " Aden
8.000 " " Algeria
5.000 " " Italy
4.000 " " Australia
10.219 " " Other minor destinations.

Total 1006.161 tonnes

Approximately 84% of the exports to France.



The value for customs purposes was:—

5,026,000 francs.		
= 5	francs per kilo	(Approx.)
= 77.5	„ „ frasila	( „ )
= 13	rupees „ „	( „ )

The average price—duty paid—in Zanzibar for 1932 was Rs. 11.58 per frasila.

Average London (spot) prices for 1932 were:—

Zanzibar	... 7.63d.
Madagascar	... 7.74d.

The freight on cloves from Tamatave to Marseilles is 520 francs per ton of 1,000 kilos which is equivalent to 130/- (shillings) with the rate of exchange at 80 francs to the pound sterling. Comparative rates for Tamatave and Zanzibar are:—

Tamatave/Marseilles	Francs 520=130/-	Zanzibar/London	110/-
Tamatave/New York	„ 730=182/6	Zanzibar/New York	121/-
Option	„ 15= 3/9	Option	7/6

The French rates are for 1,000 kilos=2,200 lbs.  
Primage is charged at 10%.

The calculated export costs for Madagascar cloves are 1.31 francs per kilo or Rs. 3.47 per frasila as compared with Rs. 3.85 for Zanzibar. Appendix VII gives the comparative details.

### CLOVE OIL INDUSTRY IN MADAGASCAR.

The oil produced in Madagascar is derived mainly from clove leaves—only to a small extent from clove stems—and is generally described as Madagascar leaf oil. Clove buds are not distilled in Madagascar. This industry was started about 1911 by Monsieur Plaine, a colonist in Sainte Marie, and has steadily increased as is shown by the table of oil exports in appendix VIII. The estimated export for 1933 is 150 tons. It is estimated that there are now about 170 stills operating in the clove areas, about 100 in the Soanierana District and 70 in Sainte Marie. The stills are scattered throughout the clove areas, situated at places which are convenient from the point of view of a good supply of water and wood fuel and central for the collection of clove leaves. The installations themselves are of the simple Deroy type, consisting of a copper still of 1,000 litres capacity and a cylindrical cooler or condenser with an internal copper spiral, which is connected with the top of the still by a copper swan-neck. The bottom of the still is built round with stone and mud so as to provide a primitive furnace in which wood fuel is used for direct heating. The cooler or condenser is placed at a higher level so as to allow of the direct return of the mother liquor to the still. Petrol or Kerosene tins are used as oil receivers. The installations are erected on hillsides or on the lower slopes so that cool spring water can readily be conducted through channels, bamboo pipes or guttering to the coolers. The usual charge for a still of 1,000 litres capacity is 290 to 300 kilos of leaves and the distillation process for one charge occupies 20 to 24 hours. The yield of oil from one charge is 5 to 5½ litres.

In Sainte Marie two European planters own and operate stills; other owners are Creole planters and natives. In the Soanierana district some of the stills are owned by a European trading and exporting firm and are rented or leased to natives who make payment in so many litres of oil calculated according to the prevailing local price, thus:—

Payment of 20 litres per month if oil price below	17.50 francs per litre
„ „ 22 „ „ „ „ „ „ between	17.50 and 20 francs per litre
„ „ 25 „ „ „ „ „ „ „	20 and 25 francs per litre
„ „ 30 „ „ „ „ „ „ at or above	25 francs per litre

The calculated return from operating a still under such conditions is about 260 francs per month at present prices of about 12 francs per litre.

Other stills are owned by natives, some being run on a sort of co-operative basis in which the arrangement is that the grower brings in eight bundles of leaves, sufficient for one charge, and sufficient wood fuel for a 24 hours distillation. Of the 5 litres of oil obtained, 3 go to the still owner and 2 to the grower; sometimes the division is equal, and so more profitable to the grower. This system seems to work quite successfully.

In most cases the still owners are not clove growers and depend on buying leaves from the surrounding native plantations at the rate of 5 francs for 100 kilos of semi-dried leaves.

Supplies of leaves are obtained by cutting out the growing top of the clove tree to a depth of about 3 feet, thus leaving a cup shaped depression at the top of the tree. The practice has now become so extensive that trees of all sizes and ages are being topped. In the course of our investigations, Monsieur Ledreux elicited the information that a good large tree is capable of giving 100 kilos of twigs and leaves, but on an average 50 kilos are obtained from trees over 20 years old and 25 kilos from trees under 20 years. Much younger

trees would yield correspondingly less. The cut twigs with the leaves are usually spread out in the shade of the tree to dry for about 2 days before they are made up into bundles for transport to the distillery. Sometimes they are bunched at once and allowed to dry out in the bundles. One man is capable of preparing six bundles a day.

Formerly the leaves were stripped from the twigs before being deposited in the still, but this was found to be a laborious process and now the twigs with their adhering leaves are used to charge the still.

No use is made of the exhausted twigs and leaves.

One of the main reasons for the extension of the leaf distilling process is that the growers find it an easy way of obtaining ready money as compared with the picking, drying and selling of cloves, particularly when prices are so low. The increase in the practice is causing serious damage to the clove trees as the topping is very often too severe, especially in young trees, and often too frequent.

In Sainte Marie, not only is topping practiced but dry fallen leaves are gathered for distilling purposes. The usual task for a convict labourer, paid for at the rate of 2.25 francs per day, is to collect and bring in 6 sacks of dry leaves, each sack of leaves weighing 7 kilos. These two practices together are causing serious soil depletion, already being reflected in the depreciated condition of the clove trees which are growing on a soil that is naturally poor.

As the steady development of the clove leaf oil industry in Madagascar, as shown by the figures in appendix VIII, is obviously being made at the expense of the clove trees and is therefore becoming a serious question, Monsieur Ledreux endeavoured to obtain from the distillers the details of their working costs and profits. The information he obtained is summarised in a "Note on the Native Distilleries of Soanierana—Ivongo" which is attached as appendix IX. The last item in the note refers to a distillery in Sainte Marie which is operated by an European planter.

Some of the figures given are not strictly reliable as it is difficult to obtain correct and reliable information from the Madagascar natives, but they are sufficiently accurate to show that there is a definite profit which is big enough even at present oil prices—12 francs per litre—to make the industry attractive both to operators and growers. It is evident that this industry will continue to extend and eventually cause serious depreciation in the value of the clove trees, particularly as clove bud producers, unless some steps are taken to regulate and restrict topping. It is a source of such potential danger to a clove industry that I should strongly recommend its absolute prohibition if clove leaf distilling were suggested for the Zanzibar Protectorate.

**Export of Leaf Oil.**—The oil from the distilleries is transported in large glass bottles (demijohns) and purchased by European exporters or Chinese traders. The export receptacles are tinued iron drums of varying capacity. There is a 5% *ad valorem* export duty levied on a value fixed periodically. The last valuation was fixed on 30th September, 1933, at 15 francs per kilo. The estimated export for 1933 is 150 tons. In 1932 the exports and destinations were:—

France	123 tonnes
U.S.A.	8 ..
England	3 ..
Germany	1 ..
	—
	135 tonnes

The valuation for custom purposes was 20 francs per kilo, which gives a total export value of 2,700,000 francs.

Although practically all the oil was consigned to France, there is no doubt that much of it was re-distributed to other countries.

The quality of the oil as produced at the distilleries seemed quite satisfactory. There is no standardization or inspection in Madagascar and the shippers say that they receive no complaints, from buyers, but it is said the American manufacturers complain of inferior quality and even adulteration. Good Soanierana oil is reputed to contain 85% eugenol, but yet there is a very wide spread of over 50 francs between the prices of leaf oil and bud oil in the European markets.

**Clove Stem Oil.**—Only very small quantities of clove stems are distilled and the resulting oil is bulked with that from clove leaves. It is not understood why stems are not utilized to a greater extent, particularly as the same stills can be used for stems as for leaves, and the stems are richer in oil—4% to 5% in stems as compared with 2% in leaves, the yield in native distilleries. The explanation is probably to be found in the low price of stems—30 centimes per kilo.

## THE ECONOMIC POSITION OF THE CLOVE INDUSTRY IN MADAGASCAR AND ITS RELATION TO THAT IN ZANZIBAR.

To understand the relative position of the clove industry in Madagascar it is necessary to realize that it is more or less a minor industry in a huge country which has a wonderful variety of climatic conditions and extremely varied and extensive agricultural and mineral resources. The Island of Madagascar has an area of 236,000 square miles and is about equal in extent to France, Belgium and Holland together, and has a climate which varies from essentially tropical in the coastal areas, particularly in the east and north-east, to almost temperate on the central plateau. Of volcanic formation, there are wide variations in soil fertility; large parts of the uplands are practically barren, but there are very extensive tracts on the lower levels of extremely fertile soil.

An examination of the export figures for some of the principal products will serve to illustrate the relative importance of the various industries. The total value of the exports for 1932 was 320 million francs for a gross weight of nearly 155,000 tons. As we wish to ascertain the relative position of the clove industry, the figures for that might be given now; they are 1,140 tons of cloves and clove leaf oil valued at 7,735,000 francs.

The product which has now taken premier place in the export list is coffee, the export of which has increased from 1,221 tons in 1920 to 13,543 tons in 1932, valued at 84,649,000 francs. This concerns the clove industry more than any other product as a large part of the production is from the clove areas, and the prevailing price of about 5 francs per kilo brings it into serious competition with cloves at 2 francs per kilo. In addition there is an export duty of only 4% i.e. 20 centimes per kilo, which is more than offset by an export premium of 65 centimes per kilo. The production of coffee is being studiously encouraged with a view to supplying the whole of the French market, which took 13,000 out of 13,543 tons exported in 1932. That the production of cloves must consequently be neglected is obvious.

The cattle industry takes second place in importance with 1932 exports in the form of chilled beef and tinned meat valued at 43,620,000 francs. Cattle thrive throughout Madagascar, but the principal point of export is Majunga where there is a very large meat factory capable of dealing with about 400 head of cattle a day in the height of the season.

The product next in importance is sugar of which 6,730 tons valued at 31,461,000 francs were exported in 1932. Part of that is also produced in potential clove areas.

The cultivation of manioc (cassava) is widespread and very extensive; the export of manioc and its products amounted to 44,234 tons valued at 17,482,000 francs in 1932.

Madagascar beans (Pois du Cap) do not compete with cloves as they are produced in the south-west of the Island; the export amounted to 14,179 tons in 1932 valued at 18,959,000 francs.

On the other hand, the production of *Raphia* fibre amounting to 5,085 tons valued at 22,232,000 francs in 1932 enters into competition with cloves. It was noticeable that in the Soanierana district increasing attention was being paid to the production of *Raphia* fibre as being more profitable than cloves.

Vanilla production reached its peak in 1929 with an export of 1,092 tons, which had dropped to 866 tons valued at 14,723,000 francs in 1932. The decrease in export is due to a slump in prices which once soared to about 200 francs per kilo and have now dropped to 11 francs, a price which is certainly unprofitable. Vanilla plantations, which are extensive in the clove areas, have been abandoned or are being utilized for coffee planting. Should the price revive, vanilla will again enter into competition with cloves.

Tobacco cultivation is now receiving increased attention and encouragement; the production has risen from 60 tons in 1920 to 2,757 tons valued at 13,786,000 francs in 1932. There is a special Government Tobacco Service which instructs in cultivation and preparation and buys for export direct to France. There is also a very considerable local consumption. The tobacco areas do not correspond with the clove areas.

The cultivation of rice is probably the biggest item in the agricultural activities of the people of Madagascar. The production must have been colossal at one time for in 1924 the export amounted to 79,582 tons, which must be regarded as the surplus over local consumption; rice is essentially the staple article of diet in Madagascar, and the amount still produced must be enormous. In 1932 there was an export of 5,155 tons but in 1933 prices had risen so much that rice from Saigon in Indo-China was being imported to Tamatave in competition with the product of the central plateaux.

Maize was once an important article of export—16,467 tons in 1924—but is now a minor industry. Efforts are being made to revive it and a possible export of 30,000 tons is mentioned.

Rum is quite an important article of export, while gold and graphite are the most important mineral exports, although their values are less than that of cloves.

The clove industry occupied the tenth place in order of importance of Madagascar industries as fixed by export values in 1932; the value of cloves and clove leaf oil being only 2.4% of the total value of all exports for that year. This will naturally vary somewhat from year to year in accordance with the production and value of all export crops concerned, but there seems to be little possibility of the clove industry ever occupying a relatively higher position. For 1933 the position will probably be about the same as the export figures will show an increase owing to a big proportion of the 1932 crop being exported early in 1933—888 tons up to the end of July—and some of the 1933 crop going out in November and December, 1933, while the total value will be correspondingly lower owing to the fall in prices during 1933. The seasonal crop for 1932 was 1,320 tonnes whereas that for 1933 is estimated at from 760 to 1,000 tonnes. Judging from personal observation, I place the estimate at 760 tonnes.

As pointed out previously, this is but a small proportion of what Madagascar could produce under favourable conditions. Taking into account that the Madagascar clove trees are more numerous than those in Zanzibar and Pemba, but are definitely less productive and more uneven in cropping in individual trees, I estimate that in very good year, the crop would amount to 8,000 tons if it were fully harvested. However, it is evident from a study of all relevant conditions and factors that no more than 50% of the actual crop would be harvested; this would therefore bring the maximum production of dried cloves to 4,000 tons a figure which has never yet been attained, but appears possible of attainment when we consider that the 1930 season produced 3,307 tons. The possibility of forecasting the occurrence of a big crop in Madagascar is even more remote than it is here because climatic conditions at the period of bud formation constitute a more decisive factor in subsequent production. In Zanzibar we can definitely anticipate a small crop in the year following a heavy one and generally, although not always, calculate on a medium crop to follow the small one. The production for the past few years has varied somewhat from the more or less usual cycle as is shown by the following round figures:—

1929-30 crop	10,00,000	frasilas.
1930-31 ..	3,00,000	..
1931-32 ..	9,00,000	..
1932-33 ..	3,00,000	..
1933-34 ..	8,00,000	..

Reliable figures for seasonal production are not available for Madagascar, but calculated data would show that there is no sort of cycle in production and that there is no relation between production in any one year in the two principal clove producing countries. It might happen that the two countries would produce heavily in any one year and so cause considerable over-production, but it is almost certain that this would be off-set by a lean year in Zanzibar. A brief review of other factors will perhaps help to confirm the estimate of the limitation of output to 50% of the actual crop as borne on the trees.

There is no doubt that cloves have been over-planted in Madagascar with the result that the existing population in the clove areas is not even sufficient to cope with the clove harvest, far less devote any time to cultivation. When it is considered that the total native population of the main producing areas, Soanierana and Sainte Marie, is only 26,941 as compared with a population of 73,318 native in the Island of Pemba, it can be realized how comparatively little attention the clove trees and their crops can receive at the hands of the owners who have their rice and other food crops to produce and may be engaged in the cultivation of other export crops such as coffee, vanilla and Raphia. Outside labour from the south-east is scarce and expensive, and is not prepared to engage for only the short period of a clove harvest, which in Madagascar is more of an ordinary period in the agricultural calendar than a special season as in Zanzibar and Pemba.

Planters have to depend on their regular labour with very little outside help. Labour difficulties, principally consequent upon sparsity of local population, definitely restrict production and rule out any possibility of the extension of an industry already over-capitalized as it were with clove trees.

There are some roads in Sainte Marie but no motor transport for produce, the only motor vehicles being four motor cars. Transport facilities are practically non-existent in the clove areas. A motor road is under construction from Fenerive to Soanierana and may be completed in about two years, but the only means of access to the interior are rough paths which often become impassable in the wet season and are sometimes rendered useless through the breaking down of the rough wooden bridges. Admittedly the country is a difficult one for road making because of its hilly nature and the abundance of small

streams and rivers, and labour for such work would be difficult to obtain, but there can be no real development until the area is opened up by the construction of roads to facilitate and cheapen transport of produce and imported goods and encourage the natives to move about more and so broaden their outlook on life and improve their position. Meantime they are indolent and entirely unambitious, content to produce enough rice and other odd things to feed themselves and concerned only with obtaining sufficient money to pay their taxes.

Taxation is at the rate of 126.50 francs per adult male if exemption from the ten days Government labour is paid for at the rate of 5 francs per day. In Sainte Marie the rate is even higher. Taxes are also levied on cattle at a per head rate. The clove crop is regarded as a source of money with which to pay at least part of the taxes, but complaints are general that the crop ripens so late in the year that by the time it can be disposed of the latest time for final payment of tax has already passed. The native therefore has to obtain money from other sources and having succeeded in doing so and paying of his tax, he is content to take life very easy until the next demand for payment comes along. In this way the clove crop is further neglected and output reduced.

If it is suggested in Madagascar that taxation is heavy, the retort is that if it were lessened the native would work less than he does as he does no more than is necessary to raise the amount of the tax, apart from feeding himself. His clothing is cheap as a *Raphia* garment will wear for an extraordinary long time and stand up to all sorts of weathers and conditions.

It would seem that taxation is definitely connected with the increase in the production of clove leaf oil because the owners of clove trees find that the sale to distilleries of the twigs and leaves obtained by topping the trees provide a convenient and easy method of obtaining ready money with which to pay taxes. Distilleries are now so numerous and conveniently situated that clove tree owners are encouraged to top their trees instead of harvesting the crop. In this way, what is already a harmful practice, which will have serious effects on the industry, is rapidly extending while crop production is being diminished. I would again strongly advise Zanzibar to avoid the introduction of a clove leaf oil industry and recommend to Madagascar a restriction in tree topping if serious detrimental effects on the trees are to be avoided or at least lessened.

It may be argued that the topping of trees is beneficial under certain circumstances. This is a question which has not yet been investigated and it seems likely that discriminate topping at a certain stage of growth may have the effect of causing the tree to assume a comparatively short and bushy growth which would facilitate picking and also of stimulating fruit formation just as discreet pruning does in the case of fruit trees. But discreet pruning is vastly different from indiscriminate topping which undoubtedly has a harmful effect. Too severe topping is comparable with excessive branch-breaking which occurs during the picking process in Zanzibar and Pemba, where the trees are often so mutilated by excessive branch-breaking that it takes them a year or more to recover and yield another profitable crop. Fortunately the clove trees here have a greater productive capacity than those in Madagascar, otherwise Zanzibar would have been faced years ago with a steadily diminishing crop. That is no excuse for a continuance of the reprehensible practice of branch-breaking which is certainly one of the potent causes of the sudden and rapid deterioration of fully mature and healthy clove trees and the high incidence of "die-back".

Another factor in the restriction of production in Madagascar is the absolute lack of cultivation. No cultivated tree can successfully compete with strong weed or bush growth. It is one of the rudimentary rules in all agricultural practice that cultivation must be practised if production is to be maintained. If circumstances are such that this is not practically or economically possible, then at least the competing weed growth which chokes and robs the cultivated plants must be controlled.

It is remarkable that the clove trees in Madagascar have been able to compete so successfully with the dense undergrowth, for cultivation or even weed control is absolutely neglected; this competition would not be possible if it were not for the remarkable natural fertility of the soil in the clove areas. In Sainte Marie, where the soil is much less fertile, in fact comparatively poor, there are evident signs of serious deterioration due to lack of cultivation and constant depletion of plant food in the soil by the continuous removal of the crop, the fallen leaves and an undue proportion of the foliage by topping without any replacement of the valuable food constituents in the form of manure or even spent leaves. The high productivity of the clove trees in Penang is a striking example of the advantages of manuring.

In conclusion, I wish to express my high appreciation of and thanks for the facilities and assistance which were so readily given to me by His Excellency the Governor-General

and his officials. I wish to specially mention Monsieur Francois, the Acting Director of Agriculture, and I am particularly grateful to Monsieur Ledreux, Agricultural Officer in charge of the Tamatave Region, without whose company and generous advice and assistance, my tour in the clove areas would have been of little value. I venture to suggest that the Government of Zanzibar should return the compliment by extending an invitation for Monsieur Ledreux to visit Zanzibar and Pemba. Further interchange of ideas and opinions on clove problems would be of mutual value.

I must also express my indebtedness and thanks to Mr. Smith, the British Consul, who gave me every possible assistance, to the Vice-Consuls at Tamatave and Majunga; to the European planters who invited me to inspect their estates and to the representatives of the commercial houses, who provided me with information on the clove trade in Madagascar.

A. J. FINDLAY,  
*Director of Agriculture.*

## APPENDIX II.

### Clove Area Itinerary.

18th October,	Wednesday	Tamatave To Fenerive
19th	Thursday	Fenerive To Ampasi Mananjary
20th	Friday	Ampasi Mananjary To Ampasi Manansatrana
21st	Saturday	Ampasi Manansatrana To Fotsialana
22nd	Sunday	Fotsialana To Vohibato
23rd	Monday	Vohibato To Soanierana
24th	Tuesday	At Soanierana
25th	Wednesday	Soanierana To Ambodiampana
26th	Thursday	Ambodiampana To Manampana
27th	Friday	Manampana To Antanambe
28th	Saturday	At Antanambe
29th	Sunday	Antanambe To Manampana
30th	Monday	Manampana To Pointe A Laree
31st	Tuesday	Pointe A Laree To Sainte Marie
1st November,	Wednesday	At Sainte Marie
2nd	Thursday	At Sainte Marie
3rd	Friday	Sainte Marie To Pointe A Laree and Soanierana
4th	Saturday	Soanierana To Ampasi Mananjary
5th	Sunday	Ampasi Mananjary To Fenerive
6th	Monday	Fenerive To Tamatave

## APPENDIX III.

## Comparative Rainfalls in Inches.

	ST. MARIE			SELEM, ZANZIBAR			BANANI, PEMBA		
	1930	1931	1932	1930	1931	1932	1930	1931	1932
January ...	17.02	13.67	13.21	1.49	1.86	3.37	0.40	1.09	3.32
February ...	16.16	17.94	13.87	8.37	6.27	3.03	4.01	3.96	4.23
March ...	10.18	34.96	13.98	11.16	8.67	8.14	15.27	5.90	7.67
April ...	16.91	17.11	28.63	7.54	10.92	11.45	19.40	12.72	10.64
May ...	9.38	9.23	9.99	0.97	15.41	13.74	3.16	35.38	20.41
June ...	12.58	9.34	14.00	0.10	1.71	1.61	0.44	5.81	4.89
July ...	12.06	13.74	8.35	0.35	1.71	0.53	1.19	4.91	1.29
August ...	13.67	4.13	12.03	2.18	3.60	1.26	1.49	1.82	0.99
September ...	7.08	1.70	6.65	1.72	2.69	2.60	0.90	1.31	0.80
October ...	0.74	1.76	3.76	1.98	2.21	6.95	1.31	3.31	0.34
November ...	2.69	9.25	5.07	14.77	6.52	5.31	10.76	7.37	3.84
December ...	4.20	4.95	15.83	6.82	5.33	6.05	2.92	5.86	5.10
Totals ...	122.67	137.78	145.37	57.45	67.00	64.04	61.25	89.44	65.52

## APPENDIX IV.

## Standardisation of Cloves.

*Translation of an extract from the annex to the Arrêté of November 6th, 1930 (published in the Official Gazette of Madagascar and Dependencies of November 15th, 1930), determining the conditions of circulation, sale and exportation of certain local products.*

Table No. 7

## CLOVES.

## Madagascar Cloves Type No. 1.

*Definition.*—Dry cloves free from mustiness, containing less than 1% of foreign substances and less than 3% of stems (griffes).

## F. A. Q. (Tout Venant).

*Definition.*—Cloves not entering into the above specified type but with an indicated percentage of both foreign substances and stems.

The exportation of F. A. Q. cloves containing more than 5% of foreign substances or more than 5% of mustiness is forbidden.

*Negligence.*—In the case of Type No. 1 "negligence" applies to cloves containing from 3% to 8% of stems or from 1% to 3% of foreign substances.

*Infraction.*—There is "infraction" when the percentage of foreign substances is proved to exceed 3% or when the percentage of stems is proved to exceed 8%.

"Negligence" is inapplicable to F.A.Q. cloves, but there is "infraction" when the percentage of foreign substances or the percentage of mustiness is superior to 5%.

*Inspection.*—One sack in every ten or fraction of ten.

*Packing.*—Cloves, inclusive of F.A.Q., must be bagged in new sacks containing the uniform weight of 50 kilograms nett, and bearing the mark of the type under which they are classed, that is to say:—

For Cloves Type No. 1	...	G.a.
.. .. F.A.Q.	...	G.T.b.



## APPENDIX V.

### Exports of Cloves from Madagascar (Kilograms).

(From 1st January to 31st December).

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Tamatave	141,221	227,021	82,358	93,008	210,395	378,924	378,924	49,642	275,095	49,259	153,500	475,294	218,199
Fenerive	...	...	...	...	...	...	...	...	...	...	...	...	22,200
Sainte Marie	87,124	402,524	85,667	656,844	338,420	452,744	390,636	301,134	1,073,468	516,629	1,382,966	1,999,318	599,995
Maroantsetra	...	1	1	647	275	380	9,760	3,718	18,062	9,765	14,548	204,975	191,646
Antalaha	...	...	58	2	80	1	621	17	384	2,720	...	16,325	12,684
Sambava	...	...	...	...	...	...	...	...	...	698	...	3,173	3,956
Vohemar	...	...	...	96	13	364	623	...	57	626	...	...	...
Diego Suarez	15	5,100	51	67	8,455	2,746	2,285	688	1,544	7	15,041	90,211	7
Nossibe	1,125	...	...	2	...	...	9	10	...	...	1,500	...	...
Majunga	49	60	90	...	600	...	1,162	...	842	901	196	...	...
Port Dauphin	44	...	60	...	84	1	...	69	1	...	...	...	...
Manakara	...	...	...	1	...	...	...	...	...	1	284	820	1,700
Mananjary	567	313	1,471	1,657	2,321	2,478	6,846	2,752	5,913	1,887	4,187	7,401	3,482
Mahanoro	...	...	...	...	...	...	1,151	...	1,460	...	543	3,394	4,700
Vatomandry	598	69	261	...	...	...	...	...	615	597	5,031	614	1,468
Mayotte	39	...	17	24	...	...	...	...	...	...	2	1,100	...
Anjonan	4,496	605	1,902	2,029	...	7,323	40	792	13,065	1,818	8,451	3,071	4,135
Grande Comoro	4,840	323	1,380	2,704	260	13,400	3,328	7,336	...	13,776	457	...	988
	<u>240,118</u>	<u>636,016</u>	<u>173,316</u>	<u>757,081</u>	<u>561,403</u>	<u>858,361</u>	<u>795,385</u>	<u>366,158</u>	<u>1,390,456</u>	<u>598,674</u>	<u>1,586,706</u>	<u>2,799,696</u>	<u>1,005,160</u>

## APPENDIX VI.

### Monthly Exportation of Cloves from Madagascar.

	1931	1932	1933
January	500	63	159
February	343	89	92
March	369	71	96
April	647	34	155
May	145	26	101
June	43	40	75
July	69	28	210
August	81	4	
September	47	8	
October	64		
November			
December	492	621	
Total tons	2.800	1.005	888 to July 1933.

## APPENDIX VII.

### Comparative Shipping Costs per Frasila.

<i>Madagascar.</i>		<i>Zanzibar.</i>	
Buying Commission	... Fr. 2.38	Buying Commission	... Rs. 0.02
Packing	... „ 1.11	Packing	... „ 0.33
Transport Soanierana/Sainte Marie	... „ 0.79	Export duty	... „ 2.00
Export-Tax and Statistics	... „ 2.38	Shipping and Inspection	... „ 0.09
Loading (Frs. 30.00 per ton)		Insurance	... „ 0.08
Stowing ( „ 12.50 „ )	... „ 0.95	3% Shrinkage	... „ 0.18
Transit Commission ( „ 10.00 „ )		Freight	... „ 1.12
Insurance 0.72% on Frs. 4 per kilo	... „ 0.48	Telegrams	... „ 0.03
Shrinkage 5% on Price f.o.b. 2.20	... „ 1.75		
Sale's Commission/Marseille 3% on 3.50	... „ 1.75		
Transfer charges 1 1/4 on 2.20	... „ 0.48		
Freight	... „ 8.73		
	Fr. 20.80		Rs. 3.85
	= Rs. 3.47		

## APPENDIX VIII.

### Export of Clove Leaf Oil from Madagascar from 1913 to 1932.

Year.	Tonnes.
1913	1.453
1914	318
1915	282
1916	938
1917	646
1918	1.351
1919	2.770
1920	3.127
1921	7.159
1922	10.557
1923	17.294
1924	25.467
1925	27.769
1926	31.143
1927	47.514
1928	69.158
1929	88.872
1930	103.267
1931	117.303
1932	135.458

## APPENDIX IX.

### Note on the Native Distilleries of Soanierana—Ivongo.

*Compiled by Monsieur Ledreux.*

1ST CASE. A native owner of a still, who buys leaves.

Proprietor: Rakoto Thomas, Fotsialana (Soanierana).

Deroy still, of copper. 1,500 litres, purchased in 1930 for 25,000 francs. Since that time it has been necessary to repair the coil and a bottom. The costs were about  $300 + 500 = 800$  francs.

The personnel of the distillery consists of:

1 fireman at 50 fr. per month, plus rice 33.75 fr.	= 88.75
8 workmen at 40 fr. plus rice = $73.75 \times 8$	= 590.00

The monthly expenses therefore amount to	<u>673.75</u>
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The price of wood is 5 francs per cubic metre. Consumption is 3 steres per day.

Taking 25 working days a month, there is an expenditure of 75 steres per month, at 5 francs	375.00
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The purchase price of the leaves is 0.05 fr. (5 cents) per kilo. One charge requires 600 kilos of leaves = 30 francs. In 25 working days $30 \times 25$	<u>750.00</u>
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The monthly expenses therefore amount to	<u>1,798.75</u>
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RECEIPTS. The 600 kilos of leaves yield about 10 litres of oil, or in one month 250 litres.

The price of oil on the spot is 12 francs, which means a monthly income of $250 \times 12$	3,000.00
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Allowing depreciation of plant and repairs at 300 francs per month, the net profit comes to  $3,000 - 2,098.75 = 901.25$  francs, or a profit of  $901.25 \div 250 = 3.64$  francs per litre.

In the case where he distils the leaves from his own plantation, the profit per litre would be  $3,000 - 1,348.75 = 1,651.25$  francs, or a profit of  $1,651.25 \div 250 = 6.60$  francs.

In the case of another native, we obtained a net profit of 8 francs per litre.

2ND CASE. A distillery which treats the leaves of other native estates.

#### *Distillery Razanamanga, Fotsialana.*

Deroy still purchased in 1928. No repairs since. Capacity 1,000 litres. Neighbouring growers bring their leaves and wood to the distillery; about  $1\frac{1}{2}$  steres of wood for the distillation of the 280 kilos of leaves and twigs which the still holds.

The bundles of twigs brought to the factory weigh about 25 kilos in the green state. One man prepares on an average 6 bundles a day.

A fine clove tree will give four bundles of 25 kilos, = 100 kilos; on an average two bundles = 50 kilos must be allowed if the trees are more than 20 years old, and one bundle if they are less than 20 years.

To prepare the wood and bring it to the distillery takes 3 man-days at 2.80 francs = 8.40 francs per stere.

In a still of 1,000 litres the usual charge is 14 bundles of 20 kilos = 280 kilos.

The preparation of these bundles has taken about $2\frac{1}{2}$ days at 2.80 francs.	7.00
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The preparation of the wood ( $1\frac{1}{2}$ steres)	<u>12.60</u>
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Total 19.60

The grower generally receives half of the oil and the other half is retained by the distiller.

280 kilos of leafy twigs give about 5.6 litres of oil, or  $5.6 \div 2 = 2.8$  litres for each share.

The income of the planter is therefore 2.8 litres at 12 fr. = 33.60 francs, and the profit per litre  $33.60 - 19.60 = 14 \div 2.8 = 5$  fr.

(At 5 fr. no allowance has been made for the decreased value of the clove trees after topping).

The owner of the still has the following expenses:

2 firemen, say	5.25 per day.
Depreciation of still (licence 200 fr.)	20.00
	<hr/>
per day for a still of 1,000 litres	25.25
Profit of the distiller: 33.60 - 25.25	= 8.35 francs.
or in a working month (25 days)	= 208.75 francs.

In this case the oil is divided equally. Sometimes the planter receives only 2 litres and the distiller retains 3; an operation which means ruin for the owner of the clove trees.

3RD CASE. The native distiller rents a still, buys leaves from the producers, distills and sells the oil.

The purchase price of leafy twigs this year is about 0.05 fr. per kilo, or at the most 0.07 fr.

*Distillery Rabenja, at Fotsialana (Soanierana).*

Has a still of 1,100 litres capacity, rented from a Company. The rent is 20 litres of oil per month.

In the still can be put 300 kilos of twigs at 0.05 fr.	15.00
The cost of labour for firing and handling is 500 fr. a month, or 500 ÷ 25 = 20 fr. a day	20.00
Cost of wood	5.00
	<hr/>
	Total 40.00

Monthly expenses 25 × 40 = 1,000 francs.

He receives in oil (5 litres from 300 kilos) say 5 × 25 = 125 litres.

20 litres are due to the Company.

There remain 105 litres of oil at 12 francs = 1,260.00 fr.

Profit to the distiller 1,260 - 1,000 = 260 fr. per month.

The planter who sells his leaves gets 300 kilos at 0.05 fr. = 15 francs.

To prepare these 300 kilos of leaves and bring them to the factory takes him 3 days; say 3 days at 2.80 fr. = 8.40 francs.

He gets 15 fr. His profit is therefore 15 - 8.40 = 6.60 fr.

(If it is estimated that he can cut 20 kilos of leaves per tree, this represents 15 trees topped. The revenue per tree is therefore 6.60 ÷ 15 = 0.45. This revenue would appear much less if the clove trees were topped very low and very young.)

*Distillery at Sainte Marie.*

At Sainte Marie leaves are distilled both dry and green, but the first method is more used.

The distillers are generally all provided with convict labour, and have distilleries with 2 or 3 stills.

The distiller buys dried leaves from the small growers at 0.50 francs per bag of about 7 kilos. (A convict at 2.25 fr. gathers 6 bags of 7 kilos = 42 kilos, in one task).

For a still holding 300 kilos	} The proprietor receives	... 21.00 fr.			
		} Cost of transport of 300 kilos, say 7 days at 2.25 fr.	... 15.75		
			} Wood, 2 men on task, for 1 stere	... 4.50	
				} One fireman at 3 fr.	... 3.00
					} Depreciation of the still at 5 fr. per day
		<hr/>			
		49.25			
	Income: 2% or 6 litres of oil at 12 fr.	= 72.00 fr.			
	Profit per day	22.75			
	and profit per litre: 22.75 ÷ 6.	= 3.79 fr.			

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**INDIANS IN ZANZIBAR.**

**MEMORANDUM**

SUBMITTED BY

**THE INDIAN NATIONAL ASSOCIATION**

OF

**ZANZIBAR,**

TO

**Mr. B. H. BINDER,**

Commissioner appointed by the Colonial Office  
to report on the

**Working of the Clove Growers' Association.  
June, 1936.**

PUBLISHED BY

**THE IMPERIAL INDIAN CITIZENSHIP ASSOCIATION,  
BOMBAY.**

## **MEMORANDUM**

**SUBMITTED BY THE INDIAN NATIONAL ASSOCIATION,  
ZANZIBAR, TO Mr. B. H. BINDER, ON THE CLOVE  
LEGISLATION.**

1. We are grateful for the opportunity afforded us to express our views upon questions which admittedly are of vital importance to the whole population of Zanzibar, of whatever nationality. We are the one central organisation representing all Indian interests in the Protectorate and it is not our function to put forward the claims of any particular section or interests within our community. Our object is to protect and promote the welfare of the Indian community as a whole, numbering some 15,000 souls, and the opinions we now record and the suggestions and criticisms we now offer are conceived solely with those objects in view. We may specifically note that in this representation we have the unqualified support of the Indian population of Pemba.

2. It is not for us to interpret the terms of reference within the limits of which the present enquiry is being conducted but we are constrained to comment upon the fact that the essential problems now to be solved do not appear to call for representations from any particular community as such. We realise that the issue raised are primarily economic issues and that the considerations which we now place before you would come from us with greater propriety in our capacity as businessmen. It is, however, a fact that business interests are to a large extent concentrated in the hands of members of our community. This of itself, need not, we believe, have lent any racial colour to the present problems of the country nor was it our wish that such a trend should be imparted to the discussion of those problems. The Zanzibar Government, however, have taken the view that the problems are essentially racial in character and this attitude affords sufficient justification for our offering comments from the Indian point of view. We assert that the interests which our community is most closely identified have been adversely affected by the present system of control in the clove trade. We are told that the economic position of the Protectorate as a whole and of the producers in particular are such as to require drastic interference by Government, irrespective of individual hardships which may ensue. Whether this is so or not is one of the main questions awaiting a satisfactory answer but the attitude

of the Government to which we have referred above leaves us no option but to conclude that racial considerations have been imported into a controversy which, in our view, is not fundamentally of a racial character.

3. The Indian population of the Zanzibar Protectorate is composed almost entirely of traders of different kinds. There are a few professional men and a certain number who take a keen and practical interest in the improvement of agricultural methods. But the vast majority are businessmen and dealers. There are not many who have depended entirely upon trade in cloves for their living; on the other hand there are very many to whom the prosperity of the clove industry constitutes the direct index of their own prosperity. Probably this is true of the whole Protectorate, but we mean something more intimate than a mere generalisation that the prosperity of the country depends upon the clove crop. We mean that for many years a very large number of Indian traders have actually received payment for goods delivered or for services rendered in cloves instead of in cash. We can, therefore, confidently assert that any measure which in our view will contribute to the prosperity of the industry will automatically receive our whole-hearted support. It is entirely in our interests to see that the clove grower obtains a fair price for his product; it is equally in our interests to ensure that the exports should continue to command an assured market, assuming that we are allowed a share in that market.

4. We believe that the various reports following enquiries made into the administration of Zanzibar in general and into the condition of the clove industry in particular have all been made available to you and there is no need for us to cover the ground with which you are already familiar. The immediate question seems to turn largely upon an examination of the actual working of the Clove Growers' Association as now constituted by the Decree of 1934. It must be remembered that for a period of about 100 years many Indians have been closely connected with the clove trade and we believe that we should have been in a position to offer useful criticism of the results shown by the figures of the Clove Growers' Association. It was for that purpose that we applied to the Zanzibar Government for certain information about the working of the Clove Growers' Association in our letter dated 27th April, 1936. Unfortunately the Government came to the conclusion that this information could not be supplied to us and we have, therefore, been left to offer somewhat general criticisms and to state a case without the full statistics being available.

5. We object on principle to the establishment of a monopolistic organisation in the clove industry, believing that the operation of ordinary business methods not only stimulates activity and interest in the industry but also distributes its profits and advantages more fairly among the population of the Protectorate. We object more particularly to an organisation such as the present Clove Growers' Association, the constitution of which seems to combine the functions of a Government Department with a subsidised trading concern. We show later that we are opposed to Government control of the trade. If, however, control is inevitable it must be by Government alone and for defined purposes. In that case all traders alike will submit to the necessary regulations, and the Clove Growers' Association if it continues to exist will be on the same footing as any other exporting concern. We do not object to any straight forward trade rivalry; that is a matter of every day business which all traders must face. What we do object to most vigorously is the combination of Government control and trade rival in one body. In addition to these objections in principle we take the liberty to doubt whether in fact such drastic control is warranted by the position of the industry. It will probably be easiest if we deal with this last aspect of the question before offering our criticisms of the Clove Growers' Association.

6. It is well known that the total clove crop in Zanzibar is subject to very large annual fluctuations. The average crop has been mathematically estimated at about 5,50,000 frasilas\* but we think that it is worthwhile pointing out that the annual variation has been as high as 7,68,000 frasilas-considerably more than the whole average crop. A statement of crops and prices will be found in Appendix II to Mr K. P. S. Menon's Report which we need not reproduce but we believe that the following addition to that statement is worth study:—

Year.		Annual variation in Production (1,000 frasilas.)	Variation in recorded price (Zanzibar).
1896-97	...	— 264	— 0/44
1897-98	...	— 105	+ 2/75
1898-99	...	+ 405	— 1/30
1899-1900	...	— 326	+ 1/02
1900-01	...	— 47	+ 1/30
1901-02	...	+ 129	— 0/85
1902-03	...	+ 57	— 0/28
1903-04	...	— 298	+ 2/55
1904-05	...	+ 610	+ 0/91
1905-06	...	— 427	+ 1/19

\* One frasila equivalent to 35 lbs.



Year.		Annual variation in Production (1,000 frasilas.)	Variation in recorded price (Zanzibar).
1906-07	...	- 42	- 0/87
1907-08	...	+ 489	- 0/18
1908-09	...	- 141	- 1/72
1909-10	...	- 205	+ 0/72
1910-11	...	- 219	+ 5/39
1911-12	...	+ 608	- 4/25
1912-13	...	- 664	+ 6/73
1913-14	...	+ 650	- 5/30
1914-15	...	- 259	- 2/54
1915-16	...	+ 271	+ 6/70
1916-17	...	- 285	+ 1/00
1917-18	...	- 214	+ 8/88
1918-19	...	+ 527	- 3/88
1919-20	...	- 562	+ 14/19
1920-21	...	+ 284	- 14/11
1921-22	...	- 280	+ 11/84
1922-23	...	+ 712	- 7/73
1923-24	...	- 667	+ 6/92
1924-25	...	+ 449	- 7/55
1925-26	...	- 149	- 1/83
1926-27	...	+ 134	- 3/78
1927-28	...	- 55	- 1/09
1928-29	...	- 469	+ 11/10
1929-30	...	+ 768	- 8/87
1930-31	...	- 697	- 0/06
1931-32	...	+ 643	- 5/37
1932-33	...	- 449	- 2/16
1933-34	...	+ 440	- 1/31

In view of the recorded annual variations we feel that from a commercial point of view the determination of an average crop is a matter of small importance. The businessman is necessarily concerned with actuals. Where statistics show a defined tendency but small variations the average may well be a matter of business concern. Where there are violent fluctuations such as are shown in the statement above with no markedly pronounced tendency in either direction the average ceases to represent any commercial reality.

7. That being so, what we are first concerned to point out is that dealing in cloves must necessarily be of a speculative character, by whatever agency it may be conducted. The charge has been levied against us that by speculative methods we have deprived the producer of a fair return for his labour and have driven away sound business conducted upon conservative lines. The question as to what exactly is the distinction between speculation and genuine business is largely an academic one and we cannot.

usefully consider it here. But what we think is of importance is the fact generally established by the figures that the price obtained has varied inversely with the crop produced until the year 1930. The full significance of that statement is realised when it is pointed out that 1930 was the year when the effects of the world depression began to make themselves felt not only in Zanzibar but in all parts of the East African coast. Sisal, Maize and Coffee all suffered simultaneously. The depression was the most severe that has ever been experienced and we do not think that it is surprising that at the beginning of 1933 a record low price for cloves was established. We must not be understood to deny that speculation took place, though we hold that Indians as such were by no means the prime offenders in that respect. What we urge is that speculation was not a cause of the fall in prices and that it is surprising that in 1934 the Government of Zanzibar should suddenly decide that drastic and immediate interference was necessary without consulting those most intimately connected with the trade. For three years there was a consistent decline in prices and we fail to see that the Government had no time to consider their proposals for assistance from all view points and to receive the criticisms of those most likely to be adversely affected.

There were other causes which contributed towards the establishment of a low price level. In 1929-30 there was record crop of 990 000 frasilas and both in 1931-32 and 1933-34 the crop was more than 900,000 frasilas. As a result large stocks accumulated which exercised a depressing effect upon the market. Further in 1930 the then Clove Growers' Association held too long the cloves deposited with them and were eventually forced to unload upon the already falling market. The incipient expansion of the Madagascar crop, to which we shall refer later in more details, coincided with the years of the depression and at the same time import duty in India was raised from 15% *ad valorem* before April 1931 to 37½% *ad valorem* in April 1932. All these factors contributed to the fall in price. We strenuously contest the charge that it was Indian speculation which brought it about but it is not our main object at present to substantiate that statement. What we believe to be confirmed by the above considerations is the assertion that the low prices were due to natural, though exceptional, causes. It is, therefore, legitimate to assume that the pendulum should of its own accord swing the other way. We do not ourselves believe that the depression in the clove industry ever reached such a pitch as to call for Government interference. Even in January 1933 when the record low price of Rs. 4-2-0 per frasila was reached the automatic recovery was instantaneous and on the very same day sales were effected at Rs. 6-12-0.

Our contention, therefore, is that in so far as the depression was considered to be due to speculation any interference by the Government was unnecessary while in so far as the depression was due to other causes the legislation undertaken was untimely and misconceived. At the same time cloves and copra also touched extremely low levels. When the price of that commodity has already improved of its own accord there is no reason to suppose that the clove market would not have reacted in the same way.

8. We have, therefore, arrived so far at this position, that in our view on an examination of the course of crops and prices in the past no sufficient case was made out for Government interference and control. We are aware that Government hold a different view and we believe that their decision in this respect has been influenced by extra commercial considerations. Enquiries in the past have suggested that it was necessary that measures should be taken to ensure a fair price for the producer and to prevent a traditionally landed class becoming landless. We have no desire to reopen this particular controversy in connection with the present enquiry. Nor do we believe that much can usefully be added to the many contradictory statements on the subject, a number of which seem to us to lack substantiation. We feel, however, that we are entitled to point out that the Government themselves appointed an *ad hoc* Committee to inquire into this matter, that the Committee having an official majority came to certain unanimous conclusions and that in any survey of the general economic position of the Protectorate those conclusions must be given due weight. Generally speaking they fortified us in our opinion that drastic interference was not required and that such sweeping measures as the Moratorium and the Land Alienation Decree in general were in excess of what the actual circumstances demanded. Had the enquiry been conducted before the decisive control of the clove market was undertaken we cannot but think that Government would have hesitated before creating any trading Association with such powers as have now been given to the Clove Growers' Association.

9. We are now faced with the fact that the Clove Growers' Association has been created by Statute and is operating as a buyer and seller of cloves. We may state at once that, if it is irrevocably decided that such an organisation is essential, we raise no objection to its assisting the producer by means of advances, free storage or transport, dissemination of market knowledge and information regarding the most economical methods of production, both growing and harvesting. But it can hardly be denied that these are more properly functions of Govern-

ment itself and not of a trading organisation, or not at least of a trading organisation on which neither growers nor dealers are represented. We believe, therefore, that the Clove Growers' Association as it is now constituted should not exist in that it has no legitimate function to perform. We are determinedly opposed to the grant of power to such organisation to buy and sell in the open market. We are placed in an exceptional difficulty in this respect because at no particular moment can we say whether we are dealing with Government or with a trade rival. There is a levy on cloves brought for export which is collected by Government agency; but the funds go to the Clove Growers' Association. The books and stocks of all exporters must be open to inspection, not as one might expect by Government officials but by the officers of the Clove Growers' Association. The exporter must pay a very heavy fee for a licence to export; it is distorting the truth to say that the Clove Growers' Association pays the same fee because the cash need never be forthcoming. Surely if this is a Government institution we and all tax-payers have a right to know what is being done with public money and what is the position of the concern in which we are compulsory shareholders. If it is not a Government concern it appears to us a monstrous injustice that statutory powers should be given to one trading concern to such an extent that a virtual monopoly is constituted. The Government are convinced that the establishment of a monopoly is the only way in which the industry can be placed on a safe economic basis. We have not yet seen any valid reasons for this statement and we have shown our reasons for holding that speculation was not the cause of the depression in prices which reached its lowest point in 1933. But we think it to be at least arguable that the course which the Government is now pursuing is in itself a speculation larger than any that has so far taken place. Worse still it is a speculation with public money. We have already pointed out that the enormous variations in crop necessarily make dealing in cloves a speculative business and we have referred elsewhere to the obvious possibility of largely increased production in Madagascar. We understand that it is impracticable to stabilise production in this Protectorate and it is clear that nothing this Government can do will prevent a large and rapid increase in production in Madagascar if the authorities there are so determined. These two factors taken together render any attempt at a monopoly in Zanzibar nothing more than a gamble on a large scale with public funds. Even assuming—in our view it is most improbable—that the same sources of information regarding production in Madagascar will be open to the Zanzibar

Government or to the Clove Growers' Association as would be open to private traders, if in fact that production does increase rapidly Government are powerless to prevent it. The risk is one which may legitimately be taken by a businessman with his own money; it may not legitimately be taken by Government with the taxpayer's money. Let us add that the position becomes worse when it is realised that the nature and extent of the risk taken virtually depend upon the judgment of one man.

10. We now wish to refer to some direct results of the entry of the Clove Growers' Association into the clove market. In the first place it is not denied that many Indians previously dealing in cloves have been entirely forced out of business. In the first year the number of exporters has been reduced from 36 to 7. These figures include a few non-Indians. This in itself is evidence that the exporters did not make such profits as must constitute a burden on the industry. Had their profits been large there would have been sufficient reserves for them to maintain their position longer. In addition to the exporters the number of small middlemen who acted as temporary stockists and brokers have been shut out from that business altogether. We reserve for the moment our comment on the services performed by such middlemen. We have no figure of stocks held by the Clove Growers' Association but we believe that had this year's crop been a heavy one they would have reached such proportions as to prove a serious embarrassment. Foreign markets particularly in London, have been antagonised; special objections have been taken in London to the appointment of the Clove Growers' Association's sole representative in the United States of America. Firms in America also have expressed their strong disapproval of the operations of the Clove Growers' Association in the clove market. The levy of 0-7-0 annas per frasila, amounting as it does to something like 6 per cent of the price of cloves, is a heavier drain upon the industry than the normal profit taken by the exporters and constitutes a direct encouragement to Madagascar. The export by Madagascar of the record amount of 2,31,000 frasilas in 1935 may conceivably be an indication of this. We have information that the Clove Growers' Association has sold direct to foreign markets, presumably by forward contracts. In view of the fact that the Clove Growers' Association is exempt from the levy of 0-7-0 annas a frasila it is evident that this procedure gives it a large and unjustifiable advantage over all other exporters, whether they have paid the licence fee or not. This appears to us an abuse of authority and we can only attribute it to a determination to drive every other exporter out of business. We may also refer to two particular difficulties which are now experienced. The first affects

exporters. Previously the inspection of stock took place in the exporter's own godown and was carried out there by Government official. Now inspection is done only at the Customs except in the case of stocks held by the Clove Growers' Association. In cases of rejection the extra expense incurred by the exporter is not a light matter. The second affects the grower. Stocks brought to the Customs must be inspected there and in cases where further grading and drying is required these processes must be carried out in the Customs where no facilities such as mats or storage godown are made available to any stocks except those consigned to the Clove Growers' Association. This causes direct loss to the growers and in view of the fact that a second inspection is made at the time of export seems superfluous. The above is not intended to be an exhaustive list of the undesirable results of permitting the Clove Growers' Association to trade; it is intended only to show that in fact there are inherent evils in the present system and that some of those evils have already become apparent.

II. We have referred to the fact that the operations of the Clove Growers' Association have deprived many middlemen of either their principal or their entire means of subsistence. It has for sometime been the fashion to stigmatise the middlemen as an unnecessary and undesirable product of the commercial system who derives profit at the expense of the producer out of all proportion to the services he renders. It is possible that in a highly organised industry there may be some foundation for this line of criticism. The middleman, however, to whom we refer, has we believe, not only served a very real purpose but also has not derived any disproportionate profits. It is probably worthwhile describing in some detail the reason for his intervention and the manner in which he performs a useful function. During the harvest season it is incumbent upon the shamba owner to stay at the shamba and supervise the picking operations; there are many shambas at a distance from any recognised centre and communication may be a lengthy business. The owner not only has to remain on his shamba, supervise and pay his pickers, he must also ensure that the ordinary necessities of life such as rice, spices, bread, kerosene oil are available at not too great a distance. For all these purposes immediate cash is essential. As the cloves are picked therefore, it is the custom of the owner to send bags to his broker or other middlemen, with the request that an immediate return should be made both in cash and kind. The conscientious owner frankly cannot afford the time to take the cloves himself to the market. This service has for many years been performed by the middlemen, frequently as a side line to the

business of a retail dealer. It may be argued that this is just the kind of service which the Clove Growers' Association will be able to render. Our reply is that these are services which the Clove Growers' Association does not, cannot and should not render. It does not and cannot make immediate payment in cash for small lots brought or sent by the individual producer. It is impossible for the Association to maintain intimate contact with small individual growers, and in its own interests it must assure itself of the standard and condition of the goods it received before it makes payment. This necessarily takes time and our information is that it is often two or three days before payment can be made. The middleman on the other hand with his limited circle of regular clients probably knows beforehand the nature of the crop to be expected from each and he did in fact make the required payments on the spot, that is within a few hours and usually without demanding any pledge or mortgage. Such expeditious transaction were a real benefit to the grower. The Association does not and obviously should not make supplies in kind to the grower as the dealer—middleman is entitled to do. It is true that clauses 13 (b), (i), (iv), (v), (viii), (ix) and (x) of the Clove Growers' Association Decree may be interpreted to give power to the Clove Growers' Association to undertake and conduct, exempt from all fees, all manner of business and it may be urged that when funds are available it should be possible for the Clove Growers' Association to take the place of the retail dealers by the establishment of stores. To such a suggestion we take the strongest objection and we wish to record that we view with the gravest suspicion the conferment of such wide powers on the Clove Growers' Association. In our opinion the Clove Grower's Association has already usurped certain functions of Government and if it exercises to the full powers given by the clauses referred to above it appears to us that the Government may as well abdicate, and the whole trading community submit in favour of a dictatorship by a concern which should be intended for the service of the country as a whole. In these two ways, therefore, the middleman performed not only a useful but also an essential service. In a less direct way he rendered another service. The stocks accumulated in the hands of any one of these small stockists, may not have amounted to much but the total so kept back particularly in years of bumper crops, frequently amounted to such a percentage of the total crop as to exercise a real influence in supporting the price fetched for the remainder. We, therefore, believe that the elimination of the middleman is a disadvantage to the producer and has an adverse effect upon the industry as a whole.

12. Let us briefly summarise our argument so far as it has gone. It runs something as follows:—For many years Indians have been closely connected with the clove trade whether as exporters or as middlemen. Crops have always been subject to very large annual variations and prices have throughout depended in the main upon the quantity produced. This correspondence was maintained till 1930 when the world depression brought about an unprecedented fall in price. We do not deny that the position then was serious but we assert with confidence that a normal recovery is now taking place in the clove trade as it is in many other industries. No case has been made out for an attempt by Government to eliminate the established trader and to create a monopoly and if in fact any control of the market was necessary it need only have been by temporary measures designed to tide over a passing crisis. Other considerations have, however, been taken into account, both racial and economic, and Government take the view that a term must be set to acquisition of land by Indians and to dealings in cloves by Indian merchants. They have established a monopolistic concern in order to achieve the latter object and have almost entirely eliminated the Indian trader. We believe that such a concern not only has inherent defects, some of which are already apparent, but also represents a more objectionable speculation than any that may have hitherto taken place since it is financed by public money and, without the facilities available to the ordinary trader, is risking the whole prosperity of the country for a doubtful object. We have also shown that the broker-dealer served certain purposes to the benefit of the producer which cannot be served by the new organisation. It is now time that we should make our suggestions for the improvement of the present position.

13. Needless to say our first proposal is that the Clove Growers' Association should be abolished and that ordinary business methods should be restored. This is not a light hearted suggestion made simply from a desire to oppose Government. It is our considered opinion that a free market does not constitute a serious danger to the producer and is not calculated to interfere with sound business. Prices are improving and we believe that a comparison of the clove industry with other industries which were similarly affected by the depression shows that there is no reason to attribute that improvement to the operations of the Clove Growers' Association. The process is a natural one and interference is not called for. This proposal necessarily entails the abolition of the levy of 0-7-0 annas per frasila. We must point out in this connection that the levy has been and is used only for the purpose of outbidding other traders; it is not used for the benefit.



of the producer. If funds are required for the latter purpose they may be obtained from the proceeds of the export duty or if necessary in the form of a cess, contributed by the producer himself. The cess is an accepted method of self-help and is particularly suited to the present circumstances.

14. Assuming, however, that the economic position of the grower is such as to render some controlled assistance imperative, we suggest that such assistance need not and should not take the form of any interference with the export market. What is wanted by the grower is monetary assistance both for the improvement of his cultivation and for the harvesting of his crop, up-to-date information regarding the most economical methods of cultivation and the way in which disease and pests can be combated, information regarding market requirement, and prices and not the least important, some organisation which will guarantee a regular, controlled labour supply at reasonable rates. It is true that such services constitute part of the declared objects of the Clove Growers' Association. If indeed the Clove Growers' Association had undertaken such assistance to the producer we should have heartily commended that part of its work. But in fact, apart from short term harvesting loans, nothing has been done on these lines, as is admitted by the Clove Growers' Association in its Annual Report for 1934-35 (para 5). We are, therefore, entitled to assume that the Clove Growers' Association has subordinated its desire to assist the producer to its determination to eliminate the Indian trader. Even now there are no signs that such assistance is likely to be forthcoming in spite of the fact that the absence of any representative of the producer upon the Association lays a special responsibility on it to promote their interests. We have already stated that it is in our interest to ensure a fair return to the producer and we have no objection to the fixation of a minimum price. These are matters which should properly be the concern of Government but if for any reasons it is considered necessary to have a special organisation to achieve these objects we need not object. With regard to the fixation of the minimum price we suggest that it can be done, as at present, by the Clove Growers' Association or any organisation—giving such advances against deposits of cloves as will ensure a minimum price with due regard to the production each season. If, however, this should not be considered a sufficient safeguard we suggest that the export duty, as before, be collected in kind. The duty amounts to something in the neighbourhood of 25 per cent. This would ensure that sufficient stocks would be officially held to exercise a controlling influence in the market. The organisation should in fact, and

not only in name, represent the growers and, in the free markets which we envisage, the exporters also. We are opposed to any attempt to fix a maximum price. We are not aware of any comparable industry in which this procedure is adopted and we cannot see what purpose will be served by it. If it is argued that the absence of any limit to which prices may arise encourages speculation and may endanger the established markets for Zanzibar cloves our answer is that the private merchant is in a far better position to judge when the danger point is reached than any Government controlled organisation. And so long as the danger is recognised, as it must be and has been in the past by every businessman, the influx of money into country is entirely for the good of the country. We also think that the heavy export licence fee should be abolished. It is oppressive and out of all proportion to the turnover in the business. Trading in cloves should, in our opinion, be included in and governed by the ordinary general dealer's licence. The fee for this licence standing as it does at Rs. 300/- is sufficiently high to guarantee stability without any additional charge being levied. We consider also that the fee for a stockist licence which at present is Rs. 15/- for permission to stock at one time not more than Rs. 500/- worth of cloves should be extended to cover any amount. This licence will not permit him to export but only to sell in the local market. Our reason for this suggestion is that, as we have shown, the small stockist exercises a healthy influence on the local market and helps to maintain prices.

15. We object to the prohibition of the export of clove stems. Here again a virtual monopoly has been created by Statute and the result is that, whereas with a free market the value of clove stems was regularly in the neighbourhood of 20 per cent. of the value of cloves, the value has now fallen to something like 10 per cent of the value of cloves and the grower can hardly realise his expense on stems. If the prohibition is to continue we urge that the Government should take early steps to fix a minimum price for stems which will ensure an adequate return to the producer.

16. There are certain general considerations which from the purely Indian point of view we must commend to your earnest examination. The existing clove industry owes everything to Indian capital. It is Indian money that has financed it from the earliest days and it is Indian enterprise that has earned it large profits. We submit that it is unjust by a stroke of the pen to rob the Indian community of the fruits of its past exertions. Further, the largest and the most important market for high quality

cloves is India. In a second sense, therefore, the past prosperity of the Protectorate owes much to the Indian money and there is ample evidence that the people of India view with serious dissatisfaction, both from the commercial as well as from the Imperial point of view, the harsh return to their overseas cousins for the contribution made by them. We shall also draw your attention to the fact that at the same time at which the Clove Growers' Association Decree and the other Decrees dealing directly with the clove trade were enacted, certain other Decrees notably, the Land Alienation Decree, also found their way into the Statute Book. We have now been prevented by Statute from recovering money advanced upon landed security for a period of two years and there is as yet no sign of the removal of the prohibition. It is true that a public assurance has been given that interest will continue to accrue during the period of moratorium but in view of the known improvidence of the Arab, who is largely the protected debtor, it is impossible to believe that in a moment that accrued indebtedness will actually be recoverable. In fact the delay has been so great that we may well doubt whether this increasing interest will ever be recoverable from the source from which it is due and we think the Government of Zanzibar should consider how far a responsibility lies upon them to implement the assurances given at the time when the moratorium was imposed. This in details is not a matter for consideration in the present enquiry but we refer to it to show that there is reason for our contention that the clove legislation as such is not based upon purely economic considerations and forms a part only of a campaign consciously directed against our community. As we have pointed out at the beginning of this Memorandum this position has been virtually admitted by the Government and we think it is a circumstance which should not be overlooked in an impartial enquiry into the need for and the effect of the present system of control.

17. In conclusion we should like to repeat that figures and information concerning the Clove Growers' Association have not been supplied to us and we have, therefore, not been able to offer detailed criticism of its working over the past two years. Also in circumstances which are known to you, this statement has been compiled within so short a time that there must necessarily be omissions and points requiring further amplification. We, therefore, request you, after you have had time to examine what we have said, to be so good as to give us an opportunity of meeting\* you in person and further explaining our point of

\* The representatives of the Indian National Association of Zanzibar accompanied by Mr. G. S. Bozman had a long discussion with Mr. Binder on the points raised in this Memorandum.

view. We realise how valuable your time is, especially as your enquiry is now drawing to a close, but the subject is of such vital importance to the great majority of the Indian population of Zanzibar that we believe no excuse is needed for our importunity. We append a short summary of the main points urged in this Memorandum for your convenient reference.

#### SUMMARY

1. We do not believe that the present problems raise essentially racial issues and we disclaim the responsibility for introducing controversy on racial lines.

2. We believe that the fall in prices of cloves, which reached their lowest level in January 1933, was due in the main to the world depression. There were certain other factors which contributed to the fall. It was not due to nor accelerated by wholesale and ruinous speculation by Indian merchants.

3. We do not believe that any case existed for Government interference with normal trading methods, far less for any such dangerous and drastic scheme as an attempt to create a monopoly in the clove market.

4. The present operations of the Clove Growers' Association constitute a gamble on a large scale with public fund and are far more objectionable than any private dealings in what is by its nature a speculative business. The possibility of increased competition from Madagascar makes the position of the Clove Growers' Association even more dangerous.

5. We object strongly to a concern which combines the functions of Government control with those of a subsidised trade rival. Such an attack upon the ordinary right to trade cannot be justified in any circumstance.

6. If it is considered that the economic position of the country demands that some measures should be devised to assist the producer we have no objection but there is no need for that purpose to interfere with the export trade.

7. So far as prices have improved since 1933 that improvement is not due to the operations of the Clove Growers' Association but to the normal recovery which is taking place in other commodities as well.

8. The Clove Growers' Association has ruined Indian trade in cloves, has seriously endangered Indian trade in other respects and has antagonised the foreign markets. It has not made any effort to provide for the real welfare of the producer.

9. It has largely eliminated the small stockist and the middleman and is not able to render the services formerly rendered by them to the producer.

10. We have no objection to a minimum price being guaranteed to the producer. This can be secured by the Government giving sufficient advances against deposits of cloves and, if necessary by reverting to the practice of collecting the export duty in kind. Government will then possess sufficient stocks to exercise a controlling influence in the market.

11. The Clove Growers' Association as at present constituted should be abolished. If it is continued in any form it should direct its operations only towards promoting the welfare of the producer and should on no account take part in buying and selling either locally or in the foreign market.

12. The levy of 0-7-0 annas per frasila should also be abolished. Fund for the assistance of the producer can be obtained in other ways.

13. The wide powers given to the Clove Growers' Association under clause 13 of the Decree are unnecessary and may in future constitute a direct menace not only to the trading community as a whole but also to the Government itself.

14. It is wholly undesirable to fix a maximum price. The danger of losing existing markets can be more accurately estimated by the private merchant than by the Government organisation and the legitimate influx of money is all to the good of the country.

15. The export licence fee is out of all proportion to the turnover in the business and should be abolished. Trading in cloves should be taxed by the ordinary general dealers' licence for which the fee is already sufficiently high.

16. The stockists licence fee should be extended to cover any amount. The small stockist exercises a healthy influence on the market and should be encouraged.

17. The prohibition on the export of stems should be removed. Alternatively a minimum price should be guaranteed to the producer.

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**INDIANS IN ZANZIBAR.**

**REPRESENTATION**

**MADE BY**

**THE IMPERIAL INDIAN CITIZENSHIP ASSOCIATION**

**TO**

**THE GOVERNMENT OF INDIA**

**ON THE REPORT**

**BY**

**B. H. BINDER, F. C. A.**

**ON THE**

**ZANZIBAR CLOVE INDUSTRY**

**BOMBAY**

**DECEMBER, 1936**

**The Imperial Indian Citizenship Association,**

Sohrab House,  
235, Hornby Road,  
BOMBAY.

30th December, 1936.

From

SIR PURSHOTAMDAS THAKURDAS, Kt., C.L.E., M.B.E.,  
*Chairman,*  
The Imperial Indian Citizenship Association,  
BOMBAY.

To

SIR GIRJASHANKER BAJPAI, K.B.E., C.I.E., I.C.S.,  
*Secretary,*  
Government of India,  
Department of Education, Health & Lands,  
NEW DELHI.

Sir,

The Binder Commission was appointed on the 1st April, 1936 by the Secretary of State for the Colonies with the following terms of reference:—

“To review the position of the Zanzibar clove industry, and in the light of the experience which has now been gained through the operations of the Clove Growers' Association, to report whether in the permanent economic interests of the territory as a whole any and, if so, what modifications are necessary or desirable in the system of control as it now exists”.

Having regard to the agitation by Indians in Zanzibar over the decrees of the Zanzibar Government, one of which was that relating to the Clove Growers' Association, the omission by His Majesty's Government to make specific reference to the effect of the policy of the Zanzibar Government on Indian interests appears to be the reason for Mr. Binder's highly unsatisfactory recommendations. It cannot be that His Majesty's Government were not prepared to consider the grievances of Indians as an important issue in the problem arising from these decrees. Mr. Binder has endeavoured to his utmost to deal with the question as one of profit and loss only, irrespective of the human factor, so far as Indians are concerned. But he has not been successful in his effort because the clove industry in Zanzibar has been practically the creation of Indians, and its interests are the interests of Indians. The Zanzibar policy is to try to save the industry at the expense of Indians. The trade has been taken out of their

hands. The debts due to them are being withheld under the name of 'moratorium'. They are denied the right to own lands. Short of expulsion, everything has been done to make them quit the land in which they have lived and worked for centuries.

(2) Mr. Binder states that the recommendations made in his report are based solely on economic considerations, but he adds, "if, as is the case, necessary economic adjustments adversely affect practically one racial section of a community by reason of its particular financial and economic activities" and "if steps taken, and which may be taken, can be demonstrated to be directed towards the improvement of the clove industry as a whole, they must prevail as being in the best interests of the country even though they may unfortunately cause individual and racial hardships". The Council are unable to understand what the interests of the country and the industry may be, apart from the interests of those who are connected either as growers or as merchants with the production and distribution of its products. In estimating the prosperity or the decadence of an industry not the least factor to be considered is the effect of any remedial measures that may be suggested on the economic and social conditions of the people connected with the industry. If the effect of these decrees, as Mr. Binder makes out, has been to improve the condition of the industry by inflicting loss upon the Indian community, the Council maintain that the measures cannot be justified on grounds of justice and statesmanship. This defect vitiates the whole of the report as an attempt to solve the problem of the clove industry with which is inextricably bound the vital interests of Indians in Zanzibar. Mr. Binder's recommendations are directed solely to developing the industry, with the Indians eliminated from it. Whether these prove effective or not, the position is not one which, the Council submit, the Government of India can possibly accept. Appended is a Memorandum containing the comments of the Council on some of the points in Mr. Binder's report. They all go to show that Mr. Binder has completely failed to bestow any but the most casual attention on the effect of the decrees on the interests of the Indians. The Council, therefore, earnestly hope that the Government of India will take prompt and effective measures to safeguard the interests of the Indian community in Zanzibar before His Majesty's Government pass final orders on Mr. Binder's report.

(3) The so-called concessions suggested by Mr. Binder viz :—(a) Appointment of a Trade Agent from amongst the most reliable and experienced existing local leaders, (b) Sales for export to be made by the C. G. A. to licensed exporters unless and until overseas buyers desire to buy direct, (c) Export license-



to be issued by the Government and the export license fee to be reduced, (d) Export levy to be abolished and (e) Consideration of the advisability of establishing an Advisory Committee and the appointment thereon of two representatives of Exporters, strike the Council as being such insignificant matters of relief that in their opinion, they have no value as against the permanent injury that would be caused to Indian trading interests by the adoption of Mr. Binder's principal recommendations for strengthening the C. G. A. by giving them complete monopoly of purchasing cloves in the Protectorate.

(4) These are the views of the Council on Mr. Binder's Report and other publications in connection with the steps of the Government of Zanzibar during the last three years available to them. The Council understand that the Indian National Association of Zanzibar are submitting their views to the Government of India and when these are available to the Council, they may supplement this representation further, if necessary. In the meantime, the Council feel that the Government of India have no option but to express their complete dissent from the recommendations of Mr. Binder. They will, the Council hope, consider it necessary to enquire of His Majesty's Government what steps they now propose to take to ensure justice to Indians in Zanzibar.

(5) Finally, the Council of the Association would invite the attention of the Government to the Treaty of Friendship, Commerce and Navigation between Great Britain and Zanzibar signed at Zanzibar on April 30, 1886, wherein the following binding has been given by His Highness the Sultan of Zanzibar :—

“His Highness the Sultan of Zanzibar binds himself not to allow or recognise the establishment of any kind of monopoly or exclusive privilege of trade within his Dominions to any Government, Association or individual”.

(Although this Treaty was abrogated, its terms were embodied in a later Treaty signed in 1898.)

The Council submit that what is now sought to be carried through, is a flagrant violation of the above distinct undertaking in the Treaty. The Council feel, in view of such a condition in the Treaty, wiser counsel will still prevail.

I have the honour to be,  
 Sir,  
 Your obedient servant,  
 PURSHOTAMDAS THAKURDAS,  
*Chairman.*

**M E M O R A N D U M**

**ON THE REPORT**

**BY**

**B. H. BINDER, F. C. A.**

**ON THE**

**ZANZIBAR CLOVE INDUSTRY**

**SUBMITTED BY**

**SIR PURSHOTAMDAS THAKURDAS, Kt., C. I. E., M. B. E.**

**CHAIRMAN OF**

**THE IMPERIAL INDIAN CITIZENSHIP ASSOCIATION**

**TO**

**THE GOVERNMENT OF INDIA**

**BOMBAY.**

**DECEMBER, 1936.**

## MEMORANDUM

Mr. Binder says on Page 41 of his Report that it is regrettable that racial issues should have arisen with regard to the problem affecting the Clove Industry. He states "It is evident that a racial question arises by incidence and not necessarily from racial feeling." He hastens to make clear that the recommendations made in his report are based solely on economic considerations.

(2) This is at complete variance with the facts as stated by the Government of Zanzibar in their comment on Mr. K. P. S. Menon's Report. Commenting on Para 6 of Mr. Menon's Report, the Zanzibar Government say as under:—

"It is futile to attempt to disguise the facts that the Protectorate's problem is essentially a racial one; to ignore or attempt to conceal that fact is merely to evade the issue".

In the words of the Zanzibar Government, therefore, Mr. Binder's Report can be said to be a futile attempt to review the position of the clove industry in Zanzibar in ignorance of facts as admitted and emphasised by the Zanzibar Government themselves. The Council submit with emphasis that Mr. Binder's Report evades the main issue, which has been at the bottom of the movement to start a Clove Growers' Association and the effort to drive Indians out of the clove industry.

(3) Mr. Binder further refers to the moratorium which has been twice renewed and states that it undoubtedly has caused hardship in a number of cases, and the length of time this Decree has been in force (now over two years) has affected the position of creditors to a considerable extent. In this connection, it is interesting to note that Mr. Strickland who reported in 1931, anticipated, in Paragraph 15, Chapter III, that the indebted plantation owners may object to the C. G. A's operations because, in addition to their mortgages, they were encumbered with open debts to dealers and shop-keepers and cannot sell through the C. G. A. until these are cleared. Mr. Strickland says, "This argument has force, and I recommend that a sum of money be lent by Government to the Association to free a few of the growers from shop debt in each year, in return for a chattel mortgage on their crops". The Government of Zanzibar overlooking this fundamentally equitable point of view stressed by Mr. Strickland hastened, by a short cut, for their programme by declaring a

moratorium. That the moratorium is indefensible from any point of view and its continuance thoroughly without parallel need not be stressed further. Such a wanton expropriation of a commercial section of any country has to be looked for outside Germany under Herr Hitler in recent years.

(4) It is further to be noted that regarding the burden of debt on agriculturists, Mr. Binder records that there are "varying opinions" and "no reliable statistics". Mr. Binder proceeds on the assumption that out of the total number of clove trees in Zanzibar of 3 millions, as estimated in 1922, Indians are estimated to have held 500,000 in 1933, and a further 300,000 trees were estimated to have been mortgaged to them. Taking for granted that there was no increase in clove trees between 1922 and 1933, out of the total of 3 million trees, Indians either held, or, had lien on, 800,000 trees, at the maximum. Bearing in mind the direct and intimate touch of Indians with the clove growers over a period of almost a century, and further bearing in mind the unprecedented depression which overtook the world since 1930, one wonders whether it is justifiable for the Zanzibar Government, even on this evidence, if it were unchallenged, to resort to this drastic measure of practically eliminating Indians from the industry which they helped to build up, if not actually bring into existence. But the estimate of the ownership of clove trees, as taken for granted by Mr. Binder on Page 7 of his Report, is at variance with the estimate made by the Law Committee of 1935 in Paragraphs 10 to 22 of their Report. That Committee whose specific terms of reference included "an inquiry into and report upon the problem of agricultural indebtedness in the Protectorate" satisfied themselves that the figure of 7½% under Indian ownership furnished to them was approximately correct, and one fails to understand why Mr. Binder did not take cognisance of the Law Committee's Report in this connection. If the figure of clove trees owned by, or under lien to, Indians be taken at in the neighbourhood of 18% of the total number of clove trees as reported by the Law Committee, it would not be uncharitable on the part of the Indian public to infer that the Government of Zanzibar have magnified the indebted position of the clove agriculturists in Zanzibar in order to start their set plan of ousting Indians from the clove industry in Zanzibar, and indeed, of ruining Indians in Zanzibar for ever.

(5) Mr. Strickland, in Paragraph 5 of Chapter I of his report says, "The actual amount of debt does not appear to me extremely heavy.....The trouble is rather that the debtor has never been trained to make the required effort and has no alternative source of credit (other than the harvesting and storage advances of the Clove Growers' Association) on which to draw. There is no

co-operative organisation, and the borrower is in the power of the money-lending produce dealer. It is not my object to revile the latter. Though the rates of interest charged are ordinarily high, 50% and more being not unusual, bad debts are no doubt many, and a punctual borrower on good security can obtain money as low as 7½ or 8%.....Interest varies with the character of the individual."

(6) Mr. Binder definitely says in his Report that, although it was not within the scope of his terms of reference he must stress the debt question as one which cannot be ignored when considering the clove industry. He further says, "I must emphasise that the effect of the admitted, though not fully known burden of debt on clove growers necessitates the question being handled as soon as possible. The steps already taken through the Clove Growers' Association, and referred to later, to improve the position of the clove growers cannot be taken full advantage of and become fully effective until debts that are too burdensome have been dealt with and interest rates have been brought down to a figure that the industry can support". In another paragraph of his Report, he says, "If possible, the debt question should be dealt with at the same time and co-ordinated with the carrying out of such other recommendations in connection with the clove industry made in this Report as may be adopted." The crux of the whole question, therefore, is:—Are the Zanzibar Government not putting the cart before the horse in hastening with the consideration of confirming the Clove Growers' Association machinery before making any attempt at dealing with the root cause of the whole trouble, viz:—the indebtedness of the agriculturist in Zanzibar, and devising methods of bringing about relief in the same? It will be most useful, if not absolutely necessary, for the Government of India to find out, at this stage, from the Colonial Office what the intention of the Government of Zanzibar is in connection with this very important and fundamental question referred to by Mr. Binder and so pointedly and unequivocally emphasised by him even though not within the terms of reference to him.

(7) In Para 42 of their Report, the Law Committee say that they have refrained from including in their Report any recommendations regarding safeguarding the agriculturist from future indebtedness, which were, however, available with them, if required. The various Appendices to that Report have not been published for public information, but the Council understand that these recommendations of the Law Committee were submitted to the Government of Zanzibar confidentially after the Report was officially submitted. It would be useful to know what these recommendations were, and particularly, why they have not yet been published.

(8) It may be pointed out that the Zanzibar Government chose, to fit in with their plan, the right time for the inquiry into the working of the Clove Growers' Association. The Clove Growers' Association was in a most favourable position. Its operations had so far proved successful owing to two successive short crops and want of Indian resources and organisation and the opportunity was seized to silence its critics and strengthen its position. It has been the declared policy of Government of Zanzibar to establish a monopoly for the purpose of stabilising prices and feeding the different markets with cloves of grades and prices suitable to varying requirements—always reserving the highest grade and price for the Indian market, which is purely a spice market. Control was introduced at a time when price had reached a very low, if not lowest, level. Can inferences made at such a naively selected opportunity be relied upon to hold under normal circumstances?

(9) The report seems to be the inevitable corollary of the policy of Government, which baldly states that Indian interests must be sacrificed in the interests of the industry as a whole. The charge in the Indian Memorandum that the Clove Growers' Association indulged in dangerous speculation with public funds, is answered by making the monopoly absolute and minimising the loss.

(10) The Memorandum submitted by the Indian National Association of Zanzibar to Mr. Binder pointed out that the Clove Growers' Association did not at all work on a co-operative basis. This is met by giving the Clove Growers' Association the semblance of a Co-operative Society, its profits to be utilised in adjusting the price of cloves for the succeeding season and thus distributing it amongst all growers. This is, however, not quite clear. Any attempt to distribute the profit in the form of a bonus or otherwise, which was considered impracticable by Indians, is now abandoned. There is a danger that the Clove Growers' Association, in future, may be substituted by a European Syndicate.

(11) Regarding the recommendations made by Mr. Binder, it is submitted that no Government, either the Government of India or His Majesty's Government, can consider the Report of Mr. Binder merely from the economic considerations involved in it, to the exclusion of the political repercussions of same. Whilst relief may be brought to Zanzibar from the points of view of the economic aspects on which Mr. Binder has reported, such relief should be consistent with the meritorious part which Indians have played till now in Zanzibar in its economic fabric. Indeed such relief cannot be even considered if it does rank injustice to Indian interests in the clove industry there. In view of the following observations of Mr. Winston Churchill, the plea to look at the

question from the purely economic point of view, even if Mr. Binder were correct in his various inferences, would be a pathetic commentary on British sense of justice:—

“It is the Indian Banker who supplied perhaps the larger part of the capital yet available for business and to whom even the white settlers have not hesitated to go for financial aid. The Indian was here long before the first British officer. Is it possible for any Government with a scrap of respect for honest dealing between man and man to embark on a policy of deliberately squeezing out the native of India from regions in which he has established himself under every security of public faith?”

(12) Under the heading ‘Local Distillation’, Mr. Binder gives a narrative of the method by which the Distillery Company, established in Zanzibar in 1935, came into being. The suggestions made by the Distillery Company to change the arrangement made in 1935 appear to be intriguing. Their contention that their original representations were that the price of the stem should be based on the price of stem oil and not on the market price of stem, requires to be correctly understood. Whatever may be the price of stems in foreign markets, this Distillery Company contend that stem (the export of which is prohibited) must be sold to them but only on the basis of prices which would make their operation of distillation in Zanzibar a paying proposition. One wonders how many manufacturing concerns would not rush for such a concession and it appears that Mr. Binder thinks that it may be necessary to review the situation with the Distillery and to negotiate new arrangements with them. The Indian is quite justified in wondering whether, with their elimination from Zanzibar and with the direction of the Clove Growers’ Association in the hands of Government Officers exclusively, the Distillery may not be put on velvet, irrespective of considerations of a fair deal for the grower of cloves as based on world prices available for his stems abroad. Such a one-sided arrangement made by a Department of Government with a British-owned industrial concern is not unknown in the Colonies, and in the absence of any effective voice from the local Arabs, such an arrangement at a later date cannot be said to be improbable. It is conceivable that the local agriculturists will be helped out of what is alleged to be the existing frying pan of the Indian middlemen into the fire itself of a local Distillery under certain circumstances.

(13) It is useful to record here what Sir Alan Pim said in Para 290 of his Report regarding the apprehension mentioned above:—

"The Arab Association, which may be taken as representing the present feeling of the producers, is opposed to any scheme of distillation, on the grounds that it may injure the trees, affect the clove market prejudicially, and interfere with the supply of labour. The main ground for their opposition is probably the suspicion that the distillation project is merely a method of exploiting them in the interests of manufacturers overseas."

In spite of this warning of Sir Alan Pim in May, 1932, the Government of Zanzibar put out the notice calling tenders for a Distillery in 1935, and, strange to say, there was only one application received for it. Mr. Binder records that when the license to this single applicant was being considered finally, the persons in power found it necessary to give instructions that even the C. G. A. should not be referred to, leave aside the Arab and the local native in whose interest all these 'improvements' are claimed to be made. Unless more light is thrown on the somewhat queer-looking method of calling for and disposing of tenders for a Distillery, further comment is unnecessary.

(14) Sir Alan Pim, in his Report dated 23rd May, 1932, raised the question as to whether there was any real need for the Association. What he favoured was an organisation of the Clove Growers' Association as a businesslike institution, under competent commercial management, and whilst he did not recommend starting it as a Co-operative Society as recommended by Mr. Strickland, he said that that may be its ultimate aim. He considered it advisable that such a body should have powers to give loans for the purpose of relieving the agriculturist from debt. Overlooking this advice, the existing Association was established, with certain rights, powers and duties as defined in the Decree of July 1934. Mr. Binder states that the present policy of the Board of this Association is gradually to secure complete control of the clove industry. It is difficult to anticipate the fate of an industry from which the most prominent commercial community concerned is being squeezed out under any excuse handy. Mr. Binder records that a London merchant put on record, as far back as 1896, that there was only one remedy apparent to him to meet the emergency then, viz:—making cloves a Government monopoly. For very nearly 38 years, this was shelved by the Zanzibar Government. Ups and downs in agricultural industry have been the lot of every country, irrespective of how well-organised its industry may be. India cannot agree to her people in Zanzibar being eliminated from an industry which can justifiably be claimed to be theirs by adoption, on the mere score of the depression having overtaken Zanzibar in common



with the rest of the world, since 1930. It may be noted that a Committee appointed by Government stressed rationalisation of the clove industry in 1929, and the two Indian Members on that Committee agreed that measures should be taken for the purpose of rationalising the export of cloves from the Protectorate. They were not agreed as to the method of regulation which would be most suitable for adoption in Zanzibar. The Council are unable to dilate on this as that Committee's report is not available to them.

(15) Mr. Strickland has, however, this warning to give regarding rationalisation :—

“Rationalisation, in the sense of an attempt to raise prices by holding up cloves on the market, is a dangerous policy, and will bring loss on every person and institution in Zanzibar who touches it. It will only benefit Zanzibar's competitors. The policy has disastrously failed in Malaya (rubber), Egypt (cotton), Brazil (coffee), and North America (wheat). There are 40,000 acres under clove in Madagascar, and though it is held that shortage of labour will limit the amount of the crop which can be picked to 3000 tons (against 10,000 from an equal area in Zanzibar), I am very incredulous of this limitation. If the French authorities had believed that labour was not available, they would not have induced the natives, as they have done, to plant 40,000 acres.

“Rationalisation, in the sense of marketing the crop evenly throughout the year is a more reasonable policy and when the Clove Growers' Association can handle the bulk of this crop, a measure of success may be attained. But it is not certain that harvest time prices are unduly low, and my experience in other countries is that producers lose more, in the form of interest on their debts, by holding their produce than they would lose by selling at harvest prices”.

(16) With the present stage having been reached with the background and the somewhat dubious-looking steps by which it has been reached, it is impossible for this Council to submit their views to the Government of India without drawing Government's attention to the definite opinion of the Council as expressed in Para 17 of their letter to Government dated the 30th November, 1935, which may bear repetition here:—

“In conclusion, the Council desire to inform the Government of India that unless justice is done, without further delay, to Indians regarding their grievances in Zanzibar, about which representations have already been made to the Government

of India, this flagrant instance of his Majesty's Government permitting Indians in a Protectorate to be thus deprived of their just rights will rankle for ever in the minds of Indians at home and abroad. India has shown considerable patience in demanding from the Government of India their protection to which Indians are entitled in a British Protectorate, and the Council are convinced, in view of the fundamental justice of the cause of Indians in Zanzibar, as conclusively shown by the facts and figures given above, that the Government of India will agree that they cannot without utter disregard of its duty to the Indian public, any longer look on whilst gross injustice continues to be perpetrated on the subjects of His Majesty in Zanzibar, who built up their businesses there trusting to the protection of the Crown.'

PURSHOTAMDAS THAKURDAS.

ZANZIBAR PROTECTORATE

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REPORT

ON THE

ZANZIBAR CLOVE INDUSTRY

BY

B. H. BINDER, F.C.A.

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PRICE: Shs. 2/-

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1936

## CONTENTS

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	Page.
Preface	... 1
Area and Population	... 2
Clove Area and Trees	... 2
Boundaries and Titles	... 2
Regeneration	... 3
Currency and Weight	... 3
Importance of Clove Industry	... 3
Reports and Memoranda	... 4
Government Decrees	... 5
Agricultural Land Ownership and Indebtedness	... 6
Annual Production and Export of Cloves	... 8
Harvesting	... 10
Internal Marketing	... 11
Grading	... 12
Export Markets	... 13
Export Marketing	... 14
Licensed Exporters	... 14
Levy on Export	... 15
Other Fees Payable	... 16
Tax on Cloves	... 16
Competition	... 17
Local Distillation	... 19
Clove Growers' Association	... 22
Fluctuation in Prices	... 28
Stabilisation of Prices	... 29
Co-operative Society and Monopoly	... 30
Effects of Monopoly	... 31
Representations Received	... 32
Recommendations	... 36
Racial Issues	... 39
Conclusions	... 39
Schedule "A"—Plan of export of Cloves from Growers to World's markets (Pemba)	... 43
Schedule "B"—Plan of export of Cloves from Growers to World's markets (Zanzibar)	... 44

RIVER PLATE HOUSE,  
12 & 13, SOUTH PLACE,  
LONDON, E.C.2.

To  
THE RIGHT HONOURABLE W. A. ORMSBY-GORE, P.C., M.P.,  
Secretary of State for the Colonies,  
Downing Street,  
S.W.

Sir,

### PREFACE

On the 1st April, 1936, the following announcement was published in the *Official Gazette* of the Zanzibar Government:—

The Secretary of State for the Colonies in consultation with the British Resident, Zanzibar, has recently had under consideration the position of the clove industry in Zanzibar. It has been agreed that now that experience has been gained of the operations of the Clove Growers' Association it will be desirable that the whole position should be investigated by an independent Commissioner with a view to deciding whether any modifications are required in the general policy of the Government relating to cloves. Mr. B. H. Binder, senior partner in the firm of Binder, Hamlyn and Company, Chartered Accountants, has accordingly been appointed by the Secretary of State as Commissioner to undertake this investigation with the following terms of reference:—

“To review the position of the Zanzibar clove industry, and, in the light of the experience which has now been gained through the operations of the Clove Growers' Association, to report whether in the permanent economic interests of the territory as a whole any and, if so, what modifications are necessary or desirable in the system of control as it now exists.”

Mr. Binder will leave England for Zanzibar on the 24th of April, arriving on the 14th of May, and hopes to leave Zanzibar on the 17th of June.

Any person wishing to make representations on the subject of this investigation is invited to furnish a memorandum for presentation to Mr. Binder if possible before his arrival in the Protectorate. Communications on the subject should be addressed to the Chief Secretary.

I arrived at Zanzibar on the 14th May and, including a short visit to Pemba, remained there until the 17th June, and arrived back in London on the 8th July, 1936.

Following upon my first interview with His Excellency the British Resident, Sir Richard Rankine, K.C.M.G., a further notice was published in the Zanzibar *Gazette* of the 15th May and in the local newspapers reading as follows:—

Mr. B. H. Binder having arrived in the Protectorate to undertake an enquiry in the terms already published (General Notice No. 264 of 1936) is prepared to receive, up to the 31st May, memoranda from persons wishing to make representations to him with regard to the clove industry.

Interviews can also be arranged with him prior to that date by appointment. Communications should be addressed to Mr. Binder at P.O. Box 384.

Memoranda were sent to me by several firms and individuals and also by:—

The Zanzibar Chamber of Commerce,  
The Arab Association,  
The Indian National Association.

I had interviews with representaives of these bodies, with several exporters and other persons interested in the clove industry, with various Government officers, the Board and Secretary-Manager of the Clove Growers' Association, and others.

I also met Mr. G. S. Bozman, I.C.S., who arrived in Zanzibar on the 5th June, having been deputed by the Government of India as observer on their behalf in connection with my enquiry, at the request of the Indian National Association.

The files and records of the Zanzibar Government and of the Clove Growers' Association were freely placed at my disposal as well as a number of Reports and Memoranda, which have been made for the Government from time to time in recent years, on the clove industry and questions bearing thereon.

I gratefully acknowledge the facilities and assistance given to me by His Excellency the British Resident and officers of the Zanzibar Government, the Board and Management of the Clove Growers' Association and others, and must express my cordial appreciation of the assistance and hospitality so courteously accorded to me on all sides by representatives of the British, Arab and Indian communities during my stay in Zanzibar.

### AREA AND POPULATION

The Zanzibar Protectorate consists of the islands of Zanzibar and Pemba, and also a coastal strip on the mainland which has been leased to His Majesty's Government for a payment of £11,000 per annum, plus £6,000 per annum, being 3% on £200,000 advanced by the Zanzibar Government for payment to the Imperial British East Africa Company. This £200,000 is repayable at any time at the option of His Majesty's Government.

Zanzibar Island has an area of 640 square miles and the Island of Pemba 380 square miles. The distances between Zanzibar and the three principal ports in Pemba are as follows:—

Zanzibar to Wete	... 76 sea miles.
Zanzibar to Chake Chake	... 70 sea miles.
Zanzibar to Mkoani	... 62 sea miles.

The total population of Zanzibar and Pemba according to the last census in 1931 was 235,423 of which 33,000 or 14% were Arabs and 15,000 or 6% were Indians. There were less than 300 Europeans. About 45,000 of the population were located in the City of Zanzibar. It is considered that there have been no substantial changes in these figures. The majority of the population consists of various types of African aborigines and the descendants of the former African slaves of the Arabs. Broadly speaking the Arabs and Africans are agriculturists and the Indians are traders and financiers.

### CLOVE AREA AND TREES

Only part of the soil of the two islands is suitable for growing cloves. There are no reliable up-to-date statistics, but it is estimated that the clove area is limited to about 48,000 acres, of which 16,000 acres are in Zanzibar and 32,000 acres in Pemba. The Island of Pemba contains the larger number of clove trees and provides about two-thirds of the clove production.

The Commission on Agricultural Indebtedness, in its report dated 3rd April, 1935, estimated the number of clove trees in the two islands at about 4,000,000, but in some quarters this figure is considered to be too high. Previous estimates ranged from under 3,000,000 to 3,500,000. It is recorded that in 1922 these trees were spread over about 32,500 plantations or shambas, of which there were more than 18,000 individual owners. There are comparatively few large owners, and it is considered that the small owners represent at least 50% of the total number of clove trees. Past reports emphasise that for clove cultivation small holdings have certain decided advantages. Most of the owners of plantations are said to be burdened with heavy debts carrying high rates of interest.

Parts of the clove plantations are also planted with coconuts, and in some cases food crops and fruit are grown for local consumption.

### BOUNDARIES AND TITLES

The boundaries of plantations are in general not clearly defined, no proper surveys have been made and there is uncertainty as to titles. The description and value of a plantation is usually based on the number of clove trees and not on the area of the land. The situation is further complicated by the effects of the Mohammedan law of succession, which results in the division and re-division of estates amongst the individual members of families. The question of survey, demarcation of boundaries and registration of titles is under the consideration of the Government.

## REGENERATION

There appears to be no reliable information as to the effective life of a clove tree, nor as to the ages of the trees in Zanzibar and Pemba. It has been assumed that theoretically a clove tree at 60 years of age begins to decline in productivity and should then be replaced, though it is admitted that all clove trees do not become over mature at a definite age and that some trees may produce abundantly after the age of 60 years, though others may die off or become diseased before that age. It is considered that many plantations are younger than 60 years, as a large number of trees were gradually planted after 1872, the year in which a great hurricane destroyed many of the trees. In the Annual Report of the Agricultural Department for 1929 it was stated that, according to a then recent estimate, the trees under 10 years of age were 21% of the total. Professor Troup in his Report dated the 10th December, 1931, stated that, as far as could be judged from a casual inspection, the distribution of age classes appeared to be far from normal, there being a preponderance of the older and a deficiency of the middle-aged and younger classes.

In order to encourage the planting of young trees to replace wastage arising from age, disease or other causes, the Government instituted in 1923 the payment of a bonus on the planting of young trees, but this was discontinued in 1923. In recent years, however, the Government Agricultural Experimental Station has conducted experiments in growing selected seedlings and is now providing specially selected seedlings for sale to growers at 5 cents each. The sales of these seedlings for the past four years have been as follows:—

1933	...	2,000
1934	...	4,254
1935	...	29,000
1936	...	42,000

It is expected to sell 50,000 selected seedlings next season and to maintain sales annually at this number, which is considered to be a reasonable rate of regeneration for the time being, bearing in mind that some growers plant a number of their own seedlings.

It was represented to me by a large grower that seedlings should be supplied free to small growers. The Department of Agriculture, however, emphasise that their seedlings are specially selected, and that in the past small growers have not valued nor properly cared for seedlings distributed free of charge.

## CURRENCY AND WEIGHT

For a considerable time the currency of the Protectorate consisted of Indian rupees, but on the 1st January, 1936, East African currency consisting of shillings and cents was substituted. This currency is on a parity with sterling subject to exchange commission. The calling in of the old currency is still in course.

The weight of cloves is computed locally in frasilas.

A frasila is a local unit of weight representing 35 lbs.

Cloves used to be quoted locally at X Rupees per frasila, but upon the change in currency taking place, quotations were altered from 1st January, 1936, to X Shillings per frasila for local dealings and X Shillings per 100 lbs. for export sales. Clove prices and weights are, however, still generally referred to locally in rupees and frasilas. That currency and unit of weight has therefore been maintained in some of the statements in this Report.

## IMPORTANCE OF CLOVE INDUSTRY

Owing to the decline in importance of the port of Zanzibar as an entrepôt for East African trade, the Protectorate is now financially and economically dependent mainly on the clove industry. For a considerable period cloves have constituted about three-quarters of the exports of Zanzibar. The Government rely directly and indirectly on the industry for a substantial proportion of their revenue. The export tax on cloves has amounted

to more than one-quarter of the Government's total revenue for a number of years. As there are no other very important native industries, the clove industry provides an overwhelming proportion of the purchasing power of the inhabitants and the consequent demand for imports, the tax on which has also contributed over one-quarter of the Government's revenue for the past five years. The industry also creates various ancillary activities which provide additional employment. Therefore the maintenance of the clove industry and its well-being is of vital importance to the Protectorate.

The copra industry is the next in importance and, while it provides a fair amount of employment, the value of the annual crop is considerably less than that of cloves. The value of exports of locally grown copra for the past five years was less than a quarter of that of cloves, but a quantity of coconuts is retained locally for food consumption. A mixture of coconut and clove trees on a plantation is regarded as advantageous, especially for small plantations worked with family labour. Clove trees are only weeded twice yearly and pickers are only employed for four to six months of the year, whereas coconuts are gathered four times yearly. Moreover, it may be that the market for one class of produce might be good when the other is bad.

More food crops could be grown on plantations with advantage to the owners and to the economic state of the country, and I was informed that that this is being encouraged.

### REPORTS AND MEMORANDA

As a very large part of the Government revenue is derived from the clove industry and as reduced prices accentuate the weight of debt which burdens a large number of growers, the difficulties of the clove industry are of considerable concern to the Government. It is not surprising therefore that the effects of wide fluctuations in the prices of cloves and in particular the continued fall in prices since 1928 should have caused the Government to give special consideration to the industry. From time to time they have had a number of Reports and Memoranda made for them on the clove industry and questions of importance affecting it, the principal being the following:—

- Report of the Commission on Agriculture, 2nd July, 1923.
- Memorandum on certain aspects of the Zanzibar Clove Industry, by G. D. Kirsopp, 20th February, 1926.
- Report of the Committee appointed to discuss the Rationalization of the Clove Industry, 12th June, 1929.
- Report on Clove Cultivation in the Zanzibar Protectorate, by R. S. Troup, C.I.E., D.S. Oxon., F.R.S., Professor of Forestry of the University of Oxford, Director of Imperial Forest Institute, 10th December, 1931.
- Report on Co-operation and certain aspects of the economic condition of agriculture in Zanzibar, by C. F. Strickland, C.I.E., 15th May, 1931.
- Zanzibar, the Land and its Mortgage Debt, by C. F. Strickland, C.I.E., 15th May, 1931, and Sir Alan Pim, K.C.I.E., C.S.I., 23rd May, 1932.
- Report of Sir Alan Pim, K.C.I.E., C.S.I., appointed by the Secretary of State for the Colonies to consider and report on the financial position and policy of the Zanzibar Government in relation to its economic resources, 23rd May, 1932.
- Report of the Commission appointed to investigate the clove trade in India, Burma, Ceylon, British Malaya and the Dutch East Indies, by G. D. Kirsopp and C. A. Bartlett, 13th October, 1932.
- The Clove Industry in Madagascar: Report on a visit to Madagascar in 1933, by A. J. Findlay, M.A., B.S., Agriculture; Director of Agriculture, 1934.
- Report on the Indebtedness of the Agricultural Classes, by C. A. Bartlett and J. S. Last, 23rd December, 1933 (unofficial).
- Memorandum on position of clove trade and Clove Growers' Association policy, by G. D. Kirsopp, 21st March, 1934.
- Report of the Commission on Agricultural Indebtedness, 3rd April, 1935.
- Report of the Commission of Enquiry concerning the Riot in Zanzibar on the 7th February, 1936, 25th April, 1936.

The latter is only mentioned because it states that clove difficulties were not a contributory cause of the riot, as had been alleged in some quarters.



Numerous Memoranda have also been submitted by various Government officials and by Mr. C. A. Bartlett, Secretary-Manager of the Clove Growers' Association, and the Board of that Association.

Following the serious consideration and discussion of these documents, a number of Decrees were passed by the Government, especially in 1934. These decrees and the carrying of them into effect have caused considerable local discontent and opposition on the part of the British Indian community, and various Reports and Memoranda on the effects of certain of the Decrees have been made on behalf of that community, the principal being the following:—

- Memorandum by the Indian National Association, 1934.
- Report by Mr. K. P. S. Menon, I.C.S., on the effect on Indian interests of certain Decrees passed by the Government of Zanzibar, 10th September, 1934, and Comments of the Government of Zanzibar on Mr. Menon's Report, 12th December, 1934.
- Representation by Sir Purswotandas Thakurdas, Chairman, the Imperial Indian Citizen Association, to the Government of India, Bombay, 1935.

### GOVERNMENT DECREES

The following Decrees issued by the Government from time to time affect directly and indirectly the clove industry:—

Relating to—

*Land:*

Transfer of Property Decree,	Chapter 82, 1917/1934
Land (Perpetual Succession) Decree,	.. 103, 1926
Land Survey Decree,	.. 104, 1911/1934
The Alienation of Land (Restriction and Evidence) Decree,	.. 112, 7th July, 1934

*Property Management:*

Plantations Preservation Decree,	.. 114, 1922/1931
Agricultural Returns Decree,	.. 115, 1922/1931

*Labour:*

Master and Native Servants Decree,	.. 129, 1925/1934
Trade Union Decree,	.. 83, 1931

*Agricultural Finance:*

Moneylenders Decree,	.. 85, 1929/1934
Equitable Mortgages Decree,	.. 110, 1925/1933
Transfer of Agricultural Produce Decree,	.. 121, 1931/1933

*Duty and Customs:*

Customs Management Decree,	.. 91, 1926/1934
Customs Tariff Decree,	.. 93, 1932/1934

*Qualities and Grading:*

Agricultural Produce Export Decree,	.. 116, 6th July, 1934
Adulteration of Produce Decree,	.. 120, 21st July, 1934

*Marketing:*

Brokers, Hawkers and Goldsmiths Decree,	.. 87, 1912/1934
Agricultural Produce Decree,	.. 113, 1915/1934
Manufacture of Oil of Cloves Decree,	.. 117, 1918/1922
Trades Licensing Decree,	.. 97, 1933/1934
Clove Growers' Association Decree,	.. 118, 6th July, 1934
Clove Exporters' Decree,	.. 119, 6th July, 1934

The 1934 Decrees are those which are particularly the subject of controversy, the main controversial provisions being as follows:—

*The Alienation of Land (Restriction and Evidence) Decree:*

The prohibition of the transfer of agricultural land belonging to an African or Arab to a non-African or non-Arab without the sanction of the British Resident;

the restrictions of the forms of mortgages on such land, and the provision of a moratorium in respect of mortgages and debts owing by Africans and Arabs to a non-African or non-Arab for one year from the 7th July, 1934, extended for a further period to the 30th June, 1936, and subsequently extended for a further six months to the 31st December, 1936.

*The Agricultural Produce Export Decree:*

The institution of a system of grading cloves for export.

(Objections to this provision have practically disappeared except in London, where some opposition still remains on account of the grading not being in accord with the London Produce Brokers' Association form of contract, which presumably should be modified to be brought into line with the grading which has now been practically established in all markets, for which purpose it would be useful if it were announced that the grades are permanent and not experimental, when a decision is reached regarding the proposed new technical grade referred to later.)

*The Adulteration of Produce Decree:*

The provision that cloves shall not be marketed if they contain more than 16% of moisture and more than 5% of stems, mother of cloves or other superfluous or inferior matter.

(This was regarded as vexatious, but serious opposition to it now appears to have died down.)

*The Clove Growers' Association Decree:*

The establishment of the Clove Growers' Association with wide powers and "to deal generally in and export agricultural produce", with privileges such as the exemption from stamp duties, fees, etc.; the receipt by it of a levy of 7 annas a frasila on all cloves exported (additional to the export tax), and the guarantee by the Government of the Association's borrowings (and therefore its losses, if any).

*The Clove Exporters' Decree:*

The provisions:—

- That all exporters of cloves must be licenced annually;
- That they must pay an annual licence fee not exceeding 5,000 Rupees (£375);
- That the British Resident may restrict the number of licences to be issued;
- That the licensing authority shall be the Clove Growers' Association;
- That licenced exporters shall keep registers of their purchases and sales, and render monthly returns thereof to the licensing authority.

## AGRICULTURAL LAND OWNERSHIP AND INDEBTEDNESS

The question of the ownership of agricultural land and the indebtedness of agriculturalists has occupied the minds of the Government and others for a number of years. The total area of the land and the total debt thereon has never been ascertained, nor reliably estimated. Although there are differences of opinion as to the total amount of the debts of agriculturalists (secured and unsecured) ranging from 60 lakhs of Rupees (£450,000) to over 100 lakhs (£750,000) it is generally accepted that the burden of debt is heavy in many individual cases. It is also considered that debts have been increased substantially by the addition of compound interest at high rates owing to interest charges having exceeded the earning capacity of growers during the period of low prices for cloves.

Owing to there having been no proper survey or demarcation of properties the extent and value of a clove plantation is usually based on the number of clove trees it contains. Differences of opinion exist as to the value of a clove tree, which depends on the prices obtainable for cloves and whether such prices are widely fluctuating (and therefore speculative), or reasonably stable.

In 1922 the numbers of clove plantations, owners and trees were estimated as follows:—

	Indians	Arabs	Africans	Miscellaneous	Total
Owners	323	4,191	13,557	249	18,320
Plantations	1,300	8,638	22,187	304	32,479
Clove trees	152,490	1,623,803	1,133,197	91,463	3,000,953

The Commission on Agricultural Indebtedness reporting in 1935 recorded an estimate that from 1923 to 1933 Indians had increased their holdings of clove trees from 152,000 to 502,000 and that a further 309,000 trees were mortgaged to Indians.

Arabs and Africans are mainly agriculturalists; Indians are engaged principally in financial and trading operations, and very few in agriculture. It is the Government's policy to retain the agriculturalist as the principal owner of the land and they viewed with some alarm the gradual transfer of agricultural land to Indian financiers, especially as the result of foreclosure of mortgages on which the agriculturalists had defaulted, and the possibility of further defaults.

These circumstances and the burden of debt on the agriculturalist, in regard to which there are varying opinions and no reliable statistics, led the Government to pass in July, 1934, the Alienation of Land (Restriction and Evidence) Decree. The main provisions were to prohibit transfers of agricultural land from Arabs and Africans to non-Arabs and non-Africans, in practice Indians, except with the sanction of the British Resident, and to provide for a moratorium in respect of mortgage debts owing by Arabs and Africans to non-Arabs and non-Africans, in practice Indians.

Although the objects of the Decree have been accepted as primarily economic, its wording emphasised the racial aspect of the question and caused considerable complaint and opposition on the part of the Indian community.

The Government has under consideration a formula to describe an agriculturalist in order to remove the racial discrimination.

The Moratorium has been twice renewed and now extends to 31st December, 1936. It has no doubt caused hardship in a number of cases. The length of time it has been in force (now over two years) has affected the position to the extent that a number of creditors and debtors, and especially creditors whose loans have been increased by unpaid interest during the moratorium period (of which some debtors are stated to have taken undue advantage) consider that the Government will or should take over the creditors' position. It has revived suggestions made in the past that a Land Bank should be formed by the Government to provide credits for agriculturalists at a low rate of interest, and to take over existing land mortgages, in some cases where the security is inadequate on a compromise based on a valuation of the assets of the debtor.

Several suggestions were made to me that the Government should take advantage of existing low rates of interest for gilt-edged securities to borrow cheaply so as to provide funds for this purpose at say 6% interest, which would leave a margin for management expenses and the amortisation of a Government loan. It was considered that with mortgage interest rates reduced to 6% many growers burdened with debt would become solvent on the basis of present clove prices and would gradually be able to reduce their debts.

Interest charges on both secured and unsecured loans are high. It is difficult to ascertain definitely the range of interest rates, but it is significant that the Commission on Agricultural Indebtedness recommended that the Courts should be empowered to disallow interest above 10% and 15% on secured and unsecured debts respectively, for the period for which such interest has been unpaid, and that compound interest should not be allowed.

High rates of interest have in some cases been charged to cover risks arising from defective or incomplete titles. These titles are further complicated by the Mohammedan law of succession which has the effect of breaking up large estates and increasing the number of owners.

The Government hopes to formulate plans for dealing with the debt situation before the Moratorium expires on the 31st December, 1936.

The debt position affects the harvesting and marketing of the clove crop. Apart from borrowing on mortgage, growers have been forced by extravagance or by straitened circumstances, accentuated by the irregularity of harvests and low prices, to resort to moneylenders, dealers and shopkeepers for seasonal and inter-seasonal credits at high rates of interest, and have to pay high prices for goods supplied on credit. Growers who are encumbered by debt are to some extent under the control of their creditors, especially during the harvest season, which in many cases is the only time when creditors can obtain some repayment. Shopkeepers then expect payment for the goods they have furnished on credit to the growers. Payment is frequently made by delivery of cloves, and in this way a proportion of the crop is directed into the hands of middlemen through whom it passes to the local markets for sale.

Although it is not within the scope of my terms of reference to make proposals for dealing in detail with the debt question, it is a problem which cannot be ignored when considering the clove industry. I must emphasise that the effect of the admitted, though not fully known, burden of debt on clove growers necessitates the question being handled as soon as possible. The steps already taken through the Clove Growers' Association, and referred to later, to improve the position of the clove grower cannot be taken full advantage of and become fully effective until debts that are too burdensome have been dealt with and interest rates have been brought down to a figure that the industry can support. Keener competition may have to be faced in the future, and rates of interest may be an important factor if, in order to meet competition, sale prices, and consequently the prices paid to growers, have to be reduced.

On the other hand any improvement in and stabilisation of clove prices will improve the value of clove trees and so assist in alleviating the debt burden, and facilitate debt settlements. Therefore, if possible, the debt question should be dealt with at the same time and co-ordinated with the carrying out of such of the recommendations relating to the clove industry made in this Report as may be adopted.

### ANNUAL PRODUCTION AND EXPORT OF CLOVES

Clove buds grow on the trees in clusters at the end of stems which spread from a single stalk, and are picked before they expand into flowers. The pickers break the stalks from the trees and by pressing the picked clusters against the palm of one hand the buds are broken off the stems. The buds and stems are then segregated and sun dried, and packed in bags for transport and sale.

The clove crop year is regarded as commencing on the 1st July and ending on the following 30th June. The period of harvesting varies according to weather conditions. It sometimes starts as early as July and may extend to as late as the following February, with a break during the period of short rains. The average annual yield of cloves is estimated at 5 to 6 lbs. of dried cloves per tree. Some mature trees produce considerably more in a good season, but presumably the estimated average is based on the total number of trees including seedlings and trees not yet in full bearing. The loss of weight in drying is stated to average about 67%. Therefore, about 3 lbs. of cloves have to be picked to produce 1 lb. of dried cloves. There is some additional loss in weight through further drying taking place while cloves are held in stock, though sometimes moisture is gained. On the basis of an average yield of 6 lbs. per tree 4,000,000 trees should produce an average crop of 24,000,000 lbs. of dried cloves. This figure compares with the average annual supplies of the last five years of about 24,500,000 lbs.

The statistics of the clove production are based on the quantities of inward deliveries at the Custom House. There is very little local consumption, but these figures can only be regarded as reasonably accurate and representing the annual production if stocks have remained fairly constant, in regard to which there has been no reliable information. On this basis the annual production and export together with the average price and range

of prices for the three pre-War crop years and for the years 1923/4 to 1935/6 have been as follows:—

### Supplies and Exports of Cloves

#### Range of Prices and Average Price 1911/12 to 1913/14 and 1923/24 to 1935/36

Year (Seasonal)	Supplies	Exports	Price Range per frasila		Average Price (in Central Market) per frasila	
	Frasilas	Frasilas	Rs. Cts.	Rs. Cts.	Rs. Cts.	Rs. Cts.
Pre-War						
1911/12	798,665	578,597	8.65	15.03	10.39	9.65*
1912/13	135,365	435,770	12.62	20.43	17.12	16.82*
1913/14	785,337	508,935	9.42	13.69	11.82	10.09*
Post-War						
1923/24	311,786	503,676	19.06	29.94	27.09	23.96*
1924/25	761,440	650,247	15.68	26.59	19.55	17.89*
1925/26	611,815	594,944	16.04	19.69	17.72	16.97*
1926/27	746,492	781,967	12.13	15.11	13.94	13.65*
1927/28	690,748	695,507	11.06	18.27	12.85	12.77*
1928/29	222,000	252,203	17.85	28.31	23.95	23.78†
1929/30	990,000	748,446	10.90	20.07	15.08	14.36†
1930/31	293,113	351,735	9.41	19.49	15.02	14.65†
1931/32	935,856	776,747	7.65	11.30	9.65	9.10†
1932/33	487,366	526,183	5.57	8.93	7.49	6.86†
1933/34	927,188	794,400	4.92	7.34	6.18	5.66†
1934/35	863,452	527,004	6.78	8.51	7.78	7.54†
1935/36	298,509	710,357	8.10	10.53	8.87	8.82†
	<u>8,139,765</u>	<u>7,913,416</u>				

\*Duty paid in kind.

†Ex duty.

Prices are irrespective of Grades.

The clove tax was changed from kind to cash on 1st July, 1928.

It will be seen from the foregoing statement of supplies and exports that there is considerable irregularity in the annual production of cloves and that there is no certainty as to when a short crop will occur to correct the surplus of a bumper crop, although over a period of years supply practically equals demand. For the last 13 years the total supplies show an excess over total exports of 226,349 frasilas, but this is more than offset by the reduction in the production weights due to moisture, shrinkage and wastage for which it is customary to allow about 5%. If this is allowed for, the exports exceed the supplies for the period by over 180,000 frasilas, indicating that there was a margin of stock at the commencement of the period, subject to inaccuracies in recording inward deliveries at the Custom House.

It is not known what were the stocks at the commencement of the period, but the stocks purchased and at present held by the Clove Growers' Association on its own account and for depositors indicate that it must have accumulated a substantial proportion of stock which had previously been held by various growers and middlemen and that there have always been substantial stocks in various hands in the past. It is thought that there are no large surplus stocks overseas accumulated or being accumulated.

There has been a wide fluctuation in prices, and in recent years a very heavy decrease in the average prices obtained. Fortunately, although some markets for cloves have been lost others have expanded to take their place and there is no present indication of a serious falling off in the demand for cloves.

Clove stems, which may be regarded as a by-product arising through the picking of the buds, were also exported up to the 31st December, 1935, after which date the export of stems was prohibited. There are, however, no reliable statistics of production except for the past two years and those are for the calendar year and not the crop year, though the annual figures

of the quantities exported are available. The following statement gives the annual figures obtainable for the years stated :—

#### Supplies and Exports of Stems

##### Range of Prices and Average Price 1911 to 1914 and 1925 to 1935

Year (Calendar)	Supplies Frasilas	Exports Frasilas	Price Range per frasila		Average Price per frasila	
			From Rs. Cts.	To Rs. Cts.	Zanzibar Rs. Cts.	Pemba Rs. Cts.
Pre-War						
1911	No record	63,979	No record			
1912		133,992				
1913		74,040				
1914		102,817				
1925	No record	132,608	No record			
1926		126,560				
1927		157,469				
1928		137,072				
1929		62,176				
1930		94,729	2.00	4.37	No record	
1931		164,352	1.50	2.25		
1932		125,578	0.78	1.81		
1933		171,539	0.63	1.50		
1934	217,530	232,393	0.71	0.98		
1935	168,694	289,248	0.46	2.04	1.35	1.35

Prices are ex duty.

#### HARVESTING

Two methods are adopted for harvesting the clove crop :—

It is picked by the property owners ; or

Sold on the trees, known locally as leasing a crop.

Large property owners and female owners frequently resort to the latter method. It has been customary also for the Agricultural Department of the Government and for the Public Trustee, who manages a number of scattered plantations, to sell by auction some of their crops on the trees. In recent years the Agricultural Department have abandoned the practice as they consider that the damage done to trees by crop purchasers retards and limits succeeding crops. The Public Trustee, now that he is assured what he regards as a fair price for his production by the Clove Growers' Association, prefers direct picking.

The large owners, who pick direct, recruit labour for that purpose, but very small owners do the picking by family labour, in some cases assisted by labour attracted from that recruited by larger neighbouring plantations.

Before harvesting commences the problem arises of estimating the size of the crop upon which to base the requirements of finance and labour. It is not unusual for growers to over-estimate their crops, with the object of obtaining as large a harvesting loan as possible, and for temporising with their creditors. The Clove Growers' Association, which makes harvesting loans free of interest, has therefore to exercise considerable care in granting such loans.

The principal harvesting expenses are :—

- Picking labour—paid on a piece-work basis,
- Supervision and labour for drying, cleaning, etc.,
- Materials—bags, drying-mats, etc.,
- Transport to market.

The financing of picking and preparing the crop for the market was, before the active intervention of the Clove Growers' Association, carried out solely by various marketing intermediaries consisting of moneylenders, shopkeepers and dealers. The creditors frequently had the first opportunity of purchasing their debtors' crops, and in a number of cases were repaid by cloves taken at an agreed value, and this to some extent still continues.

Consequently a substantial portion of the crop, especially in Pemba, was directed into the hands of middlemen whose object was naturally to secure the highest possible profit for themselves and who had a tendency to speculate with part of the supplies passing through their hands, without regard to the interests of the industry.

Arrangements regarding labour are complicated by the rapidity of crop-ripening in some years. Labour difficulties are also caused by the discrimination of labourers in regard to picking. They naturally prefer to work on plantations where the picking is easiest, and even when recruited and engaged under contract they sometimes desert, after having received cash advances, to go to other plantations where the picking conditions are more favourable, thereby causing bad debts to the growers. The prosecution of deserters is difficult and generally impracticable.

Competition by growers for labour increases labour costs. Trouble also arises in some cases by growers not according fair treatment to labour. In the coming 1936/37 season difficulties may arise from the reluctance of labourers, especially those recruited from the southern areas in Zanzibar, to accept the new currency.

Prior to picking, the work on a clove plantation requiring labour is weeding, which should be carried out twice a year, and planting and tending seedlings.

### INTERNAL MARKETING

When ready for sale cloves grown in Pemba are transferred for sale mainly to the three Pemba sub-markets, namely Wete, Chake Chake, and Mkoani, and from there are shipped to the Zanzibar town Central Market, known as the Customs, to which are also sent the cloves produced in the Island of Zanzibar. A few of the Pemba growers send their cloves direct to Zanzibar for sale.

Prices vary according to appearance and quality, but the latter is subject to the standard required by the Adulteration of Produce Decree, for which purpose the cloves when brought to the Customs and the Pemba sub-markets are examined by the Government Produce Inspectors. If, as is sometimes the case, the quality does not conform to the legal standard, the growers' agent or the original purchaser carries out the necessary work of sorting and re-drying.

Purchasers may be the Clove Growers' Association, or other exporters, or middleman dealers.

Transport costs from Pemba to Zanzibar are higher than from Zanzibar districts to the Zanzibar Central Market, and consequently a lower price is paid for cloves in the Pemba sub-markets than in Zanzibar.

The Clove Growers' Association proposes for the coming season to pay the Zanzibar price in Pemba, and provide the extra transport charge out of the proceeds of the export levy which it receives.

In the case of the larger part of the Pemba production there is a first and sometimes a second intermediary before the cloves reach the Zanzibar market. Cloves grown in Zanzibar frequently come direct from the growers to the market. The Zanzibar crop therefore is less expensive to market than the Pemba crop.

Generally speaking, the Pemba clove crop changes hands two or three times and sometimes more, and Zanzibar cloves once, and sometimes twice, before being finally sold for export.

The Zanzibar agents of the Pemba sub-market buyers conduct a contra business in foodstuffs and general trade goods with the Pemba clove shippers, and in that way return part of the proceeds of the clove sales to Pemba.

The continued operations of the Clove Growers' Association and the facilities and privileges it offers to growers are increasing the proportion of the crop which it is able to purchase direct from the growers to the latter's advantage.

At the beginning of the harvesting season the majority of growers dispose of their crops as quickly as possible after they are picked, either by direct sale or by transfer in kind to their creditors. During the latter half of the season, sale pressure eases, and it has been customary for some stocks to be kept by growers and dealers for gradual disposal through the off-season, especially in Pemba. Consequently it has been impossible to estimate accurately at any time the clove stocks in the Protectorate—all figures purporting to do so being usually limited to the known town stocks in Zanzibar.

The possibility of growers continuing to hold back a substantial part of their crops is at present remote, as pressure from creditors which has been increasing for the past few years and two consecutive small crops necessitates their turning their crops into cash at the earliest opportunity.

## GRADING

Apart from the fact that some buds are better in colour and general appearance than others, inevitably a certain amount of stems get mixed with them, either by accident or design, while the inclusion of sweepings of the residues from heaps and from windfalls around the trees increases quantity at the expense of quality. Consequently the bags of cloves that come to the market are of mixed quality, varying not only with the appearance and colour of the buds but also according to the percentage of adulteration by the inclusion of Kokher, stems, etc., and by moisture.

As the various markets require different qualities of cloves it was considered that a separate grading to suit their requirements would not only assist in obtaining uniformity of quality but would enable higher prices to be obtained in the practically non-competitive spice market and so compensate for the lower competitive prices of the manufacturing markets to which the lower qualities are supplied. The Government, by the Agricultural Produce Export Decree of the 6th July, 1934, and the Clove Export Rules, provided for the specific designation and inspection of export produce (i.e., cloves and copra) and for cloves to be graded as follows:—

### Special Grade:

Good sound cloves which are whole, bright, bold, uniform, regular, free from mustiness and which contain not more than—

- 3% of stems, mother of cloves and foreign superfluous or inferior matter,
- 2% of Kokher cloves,
- 16% of moisture.

(The quantity of this grade is small and is usually sold with No. 1 Grade.)

### No. 1 Grade:

Good sound cloves which are bold, reasonably regular, free from mustiness and which contain not more than—

- 5% of stems, mother of cloves and foreign superfluous or inferior matter,
- 3% of Kokher cloves,
- 16% of moisture.

### No. 2 Grade:

Cloves which are free from mustiness and which contain not more than—

- 5% of stems, mother of cloves and foreign superfluous or inferior matter,
- 7% of Kokher cloves,
- 16% of moisture.

### No. 3 Grade:

Cloves which contain not more than—

- 5% of stems, mother of cloves and foreign superfluous or inferior matter,
- 20% of Kokher cloves,
- 16% of moisture.

*Note.*—Mother of cloves is the ovary containing the seed which is formed after the bud has flowered and the stamen and style have fallen off. Kokher is rain-damaged, discoloured and shrivelled clove buds.

This grading regularises what had previously been to some extent the practice though not strictly so. It met with a certain amount of opposition at first which, however, appears to have died down and the official grades which have now been in force for two years are recognised by and established on the markets.



By the Adulteration of Produce Decree dated the 21st July, 1934, adulteration of cloves beyond Grade 3 conditions is prohibited.

The grading is carried out by the exporters and is inspected by Government Inspectors just prior to shipment.

### EXPORT MARKETS

Broadly speaking there are three principal markets for cloves:—

1. Mainly India, and for small quantities Europe and the U.S.A., for spice, requiring best quality and for which the highest price can be obtained. Variations in prices do not materially affect the main demand. For this purpose the special grade, small in quantity, and No. 1 grade are supplied, representing about 26% of the total exports in 1935/6.
2. The Dutch East Indies for mixing with tobacco to make cigarettes. For this purpose the spice price cannot be paid and a fair average quality and a reasonable and steady price are necessary. Adulteration or too high a price would adversely affect the demand. This market is supplied with No. 2 grade, representing about 49% of the total exports in 1935/6. Europe and the U.S.A. take smaller quantities for spice.
3. The United States of America and Europe for distilling clove oil. For this purpose a still lower quality is suitable, partly because oil content and not appearance is required and partly because a mixture of stems with buds assists the process of distillation. In this market the price is affected by competition as the eugenol content of clove oil which is used for the manufacture of vanillin can be obtained from other oils and also from guaicol, a by-product of coal. This market is supplied with No. 3 grade, representing about 25% of the total exports in 1935/6.

The high prices maintained for some years reduced the demand for cloves for distilling oil for the manufacture of vanillin, and, as already mentioned, for this purpose cloves are now competitive with other products, especially guaicol. Increased demands, however, in other directions, particularly for the manufacture of cigarettes in the Dutch East Indies, have offset the loss of orders from distillers, and have expanded with the reduction in clove prices. The distillery market is now receiving special attention. Its maintenance is necessary to absorb supplies in excess of the requirements of other markets, but it is less remunerative owing to the price being restricted by the competition referred to. Owing to the gradually improving quality of cloves brought to market, the proportion of the lower quality suitable for Grade 3 is becoming less, and in order to maintain supplies for distillers' requirements it is necessary to blend Kokher and stems with buds which might otherwise be sold in the higher-priced markets. This results in a lower price being obtained for part of the production, but the apparent loss represents the cost of maintaining a footing in a less remunerative market in order to absorb surplus supplies, which may become more important if competition from other clove-producing areas should increase. Stems used for blending are limited to the quantities prescribed for the various grades, but it is understood that a larger addition of stems to Grade 3 would be advantageous to the process of distillation and help to reduce the quantity of buds which may have to be diverted from the highest grade.

In the interests of the clove industry it is necessary to study carefully the requirements of all the three principal markets with the object of being able to supply the largest quantities to the better paying markets while maintaining supplies to regular customers in all markets, which in the event of one short crop following another, as will be the case for 1936/37, may necessitate the rationing of supplies.

Stems alone have also been exported for distillation of oil, but at a much lower price, as stem oil is of lower quality than bud oil. In the London market the relative prices of stems and buds was at one time regarded as 2 to 11.

It may be noted that the supply of stems for 1934 was 3,400 tons and 1935 2,600 tons. As the export of stems increased substantially in 1934 and 1935 it may be that the demand, stimulated by the notice of the prohibition of export after the 31st December, 1935, brought out a large amount of stems previously accumulated in stock. As already noted, the annual supplies are based on the quantities delivered to the Custom House, there being no record of the actual quantity picked.

## EXPORT MARKETING

Licensed exporters purchase cloves either direct or through brokers in the Zanzibar Central Market, or from merchants, and also from the Clove Growers' Association, which is now the largest holder of stock. The exporters themselves may be growers or stockists to some extent.

During a normal picking season the main volume of business passes through the Central Market. In a good crop season supplies offered were frequently greater than the demand as represented by export orders in the hands of exporters. These conditions provided a basis for speculation and it is said that some exporters at times made forward overseas sales while short of stock, in the expectation of being able to cover their requirements profitably by bearing prices when supplies and offerings were heavy. This is stated to be one of the main reasons for the very low prices reached before the Clove Growers' Association intervened actively in the market. In the past it has also been customary for stockists, i.e., middlemen speculators, to buy up supplies when prices were low and to hold stock to sell subsequently at a higher price to exporters. On a continuing falling market, however, some of these temporary stockists have sold out to cut their loss, thus accentuating the fall in prices, or, on the contrary, on a rising market have held up stocks and so accentuated the rise in prices.

No cloves are allowed to be exported until they have been graded by the exporters and the grading has been inspected and passed by the Government Inspector of Produce.

Export sales are made either ex godown, or on an f.o.b., or c.i.f., basis. Sales ex godown are limited to licensed exporters, but a practice has developed of sales by licensed exporters to unlicensed exporters on f.o.b., terms, which is in fact selling a bill of lading which can only come into existence after the actual export has taken place. By this method a merchant with an overseas connection, or a local unlicensed exporter can buy f.o.b., from a licensed exporter and so export without taking out and paying for an exporter's licence.

### LICENSED EXPORTERS

Under the provision of the Clove Exporters' Decree (1934) no cloves can be exported except by a licensed exporter, who is required to pay an annual licence fee not exceeding 5,000 Rupees (7,500 shillings, or £375). For a short period this fee was fixed at Rs. 250, but was subsequently increased to Rs. 2,000 (3,000 shillings=£150).

The Licensing Authority is the Clove Growers' Association. As it is also a competing licensed exporter it would have been preferable for the Government to have retained the authority to issue the licences.

The British Resident may restrict the number of licences issued.

All licensed exporters are required to maintain a register of purchases and sales (without disclosing prices) and to make a monthly return to the Clove Growers' Association as the Licensing Authority. The object of this is to enable the Association to obtain information as to the local stock position and overseas demands in the interests of the industry.

If a licensed exporter desires to stock, grade and pack cloves for export in his own godowns, he must have such godowns registered and licensed, for which, however, no fee is payable. Such godowns may also be licensed for the inspection of produce for export to be carried out therein. In practice, however, licensed exporters whilst grading and packing cloves in their own licensed godowns prefer to send their bales for inspection and branding to the Produce Inspector's Depôt at the port, though, if bales fail to pass the inspection tests, expense is entailed in returning them to the exporters own godowns to be reconditioned.

In 1923 there were 113 firms or individuals exporting cloves. Their number was gradually reduced owing, it is alleged, to the adverse effects of speculation and keen competition, to 54 in 1932, 45 in 1933, and 37 in 1934.

Of those then left in the business the majority had a very small turnover and only seven exported more than 10,000 bales in the year and they accounted for 83% of the exports for that year.

The Clove Exporters' Decree was passed in July, 1934. Its objects were stated by the Government to limit the number of exporters to those of substance and minimise as far as possible speculative and unstable elements.

Only five exporters other than the Clove Growers' Association considered it worth while paying the prescribed annual fee ultimately fixed at 3,000 shillings (£150) to obtain a licence.

Export licences cannot be assigned or transferred without the consent of the Clove Growers' Association, but as already explained unlicensed exporters have found a way of carrying on business by buying from licensed exporters, including the Clove Growers' Association, on f.o.b., terms. Licensed exporters who started selling to unlicensed exporters complain that for the Clove Growers' Association to do the same is unfair competition, as the Association is exempt from the licence fee which licensed exporters have to pay and charge proportionately on their sales or bear as an overhead charge. It may be mentioned that the Clove Growers' Association is not exempt from the licence fee and in fact pays it.

Strong objection continues to be expressed against the Decree by exporters, and especially against the advantages it accords to the Clove Growers' Association as their competitor. Exporters work on a small margin of profit, the maximum being, it is stated, 1%. If, however, as in some cases, they are also importers as well as exporters, they are able, by combining their import and export transactions, to save exchange charges and thus increase their margin of profit.

On the basis of the value of clove exports in 1935 of say £475,000 a profit of 1% would amount to £4,750. If the whole of the business passed through the hands of the five licensed exporters other than the Clove Growers' Association, their total licence fees of £750 would amount to about 16% of their profits. But the whole of the business does not go through them, as some of the export business is done by the Clove Growers' Association and, as exporters may cut their commission when competing for business, the percentage of the licence fee on their earnings may well be heavier, as it would be also in the case of an exporter who did less business than his numerical proportion.

### LEVY ON EXPORT

Under the authority of the Clove Growers' Association Decree a levy of 7 annas a frasila, now reduced to 1.85 shillings per 100 lbs., was imposed on all cloves exported. This levy is paid by all licensed exporters, including the Clove Growers' Association at the time of export. The proceeds of the levy are transferred monthly to the Clove Growers' Association as a contribution towards its expenses.

Licensed exporters complain that the transfer of the levy proceeds to the Clove Growers' Association has the effect of exempting the Association from the levy and of subsidising the Association by the other exporters to the extent of the levy paid by them, and that this is an unfair discrimination in favour of a rival exporter.

They also assert that the levy is an additional tax on cloves and that it puts a burden on the industry heavier than the profits or commissions obtained by those who by the competition of the Clove Growers' Association are being eliminated from the business.

The Association, however, points out that it renders services to the industry such as:—

- Advances to growers free of interest;
- Free storage of cloves;
- Buying and selling, free of commission;
- Holding and financing temporarily surplus stocks;

the cost of which has exceeded the proceeds of the levy.

### OTHER FEES PAYABLE

General traders (trading also in cloves) pay an annual fee of 450 shillings in respect of their principal place of business and an additional fee of 150 shillings for each branch establishment. Such traders would have to take out an export licence in order to export cloves, but would be able, like other unlicensed exporters, to buy cloves on an f.o.b. basis.

The small shopkeepers pay an annual trading licence of 22.50 shillings, but their trading stocks including cloves must not exceed 750 shillings in value. If they wish to extend their business in cloves beyond this limit in Zanzibar Town they must pay the higher trading fee of 450 shillings per annum.

For dealing in cloves in districts outside Zanzibar Town they must pay a separate annual fee of 37.50 shillings, and are then not limited as to the value of their clove stocks.

Inspection, Grading and Branding fees prior to export have now been consolidated into one fee of 10 cents (one-tenth of a shilling) per bale, the weights of which vary from 140 to 195 lbs.

### TAX ON CLOVES

The tax on cloves was instituted many years ago and for a long time was paid in kind. For some years the rate was 25%, but was reduced to 20% on the 1st January, 1928.

In 1922 a Committee was appointed by the Government to enquire into and to report upon "the question of revising the system by which the Government duty is at present levied". This Committee recommended that the duty or tax should be payable at the Custom House in cash at a fixed amount of Rs. 3.85 per frasila on cloves and Rs. 0.35 per frasila on stems, which was roughly the average price the Government had obtained for its 25% of the cloves received in respect of the tax and therefore represented a tax of approximately 25% on the then existing prices.

It was not, however, until 1928 that the Government adopted this recommendation.

From the 1st July, 1928, to the present time the tax has been levied in cash on cloves and mother of cloves at the rate of 20%, and on stems at the rate of 10%, on a value fixed from time to time based on the prices expected to be realised from export sales, less the cost of packing, insurance and transportation.

The tax is paid when cloves and stems are exported and the rate of the tax is included with other charges when calculating the sale price for export. On this basis the tax is paid on the value including tax, thus making the rate 24% instead of 20% on the ex tax value.

If the price of cloves rises after the value on which the tax percentage is fixed the effective rate is less than the percentage levied, but if the price drops the effective rate is higher on actual values.

The amounts of the tax paid on cloves have varied as follows:—

1922 - 1927 25% paid in kind.

1928 January to June 20% paid in kind.

	Rs. per frasila	Shillings	
July to October 1928 paid in cash	3.40	= 14.57	per 100 lbs.
November 1928 to February 1929	3.60	= 15.43	.. ..
March 1929 to June 1929	5.60	= 24.00	.. ..
July 1929 to June 1930	3.30	= 14.14	.. ..
July 1930 to June 1931	4.50	= 19.29	.. ..
July 1931 to October 1931	2.40	= 10.29	.. ..
November 1931 to February 1932	1.80	= 7.71	.. ..
March 1932 to June 1932	3.00	= 12.86	.. ..
July 1932 to June 1933	2.75	= 11.78	.. ..
July 1933 to December 1935	2.00	= 8.57	.. ..
For 1936	—	10.00	.. ..

So long as cloves are practically a monopoly of Zanzibar in the overseas markets and therefore there is no effective competition there could be no objection to the principle of a tax on export provided it does not increase the price beyond which overseas buyers can afford to pay. Certain markets are, however, likely to be adversely affected by high prices, such as sales of cloves to the Dutch East Indies for mixing with tobacco to make cigarettes and sales for the distillation of clove oil for the manufacture of vanillin. There is also the possibility of growing competition in the sale of cloves from Madagascar. Consideration might be given to the possibility of making the tax *ad valorem* and according to grades.

The above factors and the big decrease in clove prices in recent years together with discontent with the 1934 legislation affecting the clove industry have revived some suggestions for the reduction in the amount of the tax and for reversion to the old arrangement of its collection in kind.

The question of the reduction of the tax is bound up with the budget requirements of the Government. The collection of the tax in kind would appear to be a retrograde step which in practice would be detrimental rather than beneficial to the clove industry upon whom would ultimately fall the adverse effects.

### COMPETITION

For many years Zanzibar cloves enjoyed almost a monopoly in the world's markets, but in recent years the production of cloves by Madagascar has increased to such an extent that the possibility of a further increase is a potential menace of serious competition. The clove exports of the principal producing countries, viz : Zanzibar, Madagascar, and the Dutch East Indies, for the past 10 years have been as follows :—

Calendar Years	Zanzibar		Madagascar		Dutch East Indies	
	Frasilas	Tons	Frasilas	Tons	Frasilas	Tons
1926	506,794	7,919	50,895	795	37,193	581
1927	798,248	12,473	23,434	366	25,010	391
1928	505,806	7,903	88,989	1,390	70,332	1,099
1929	559,290	8,739	38,315	599	37,139	580
1930	467,754	7,309	101,549	1,587	44,798	700
1931	693,563	10,887	176,384	2,756	15,216	238
1932	518,573	8,103	63,317	939	5,946	93
1933	689,040	10,766	78,898	1,233	15,862	248
1934	696,051	10,876	119,353	1,865	17,847	279
1935	607,266	9,489	231,843	3,623	—	—

Note.—The calendar year's figures differ from those of the crop year, but are shown for comparison with the other countries whose available figures are for the calendar year.

Madagascar exports do not include oil.

Dutch East Indies exports, for the period 1926/30 the figures include quantities shipped from Moluccas and Celebes to Java, plus the actual Java production. Subsequent figures are actual exportations only from Java. For 1935 no figures are available.

It is stated that it is not the practice in Madagascar or the Dutch East Indies to hold stocks.

In view of the substantial increase in the Madagascar production of cloves, the Zanzibar Government arranged in 1933 for their Director of Agriculture, Mr. A. J. Findlay, to visit Madagascar and report on the clove industry there. He reported that he was not favourably impressed as to future prospects as, although cloves were being grown successfully, the general fertility of the Island of Madagascar is not high; that the policy of topping trees and gathering fallen leaves for distillation of leaf oil was detrimental to the trees. The crop resulted generally in buds and stems in the proportions of about four to one and the loss of weight in drying was 70.3% compared with the Zanzibar average of 67%. Although there were no reliable statistics it was estimated that there were about 36,000 acres under cloves, planted with about 5,000,000 trees, compared with the highest estimate of 4,000,000 trees in Zanzibar and Pemba. Although the trees were more numerous in Madagascar, Mr. Findlay considered that they were definitely less productive, and that on the basis of a suggested average production of 4½ lbs. of dried cloves per tree in a good crop year these trees could yield about 10,000 tons of cloves. Mr. Findlay's own estimate of the

maximum crop that the trees could carry was about 8,000 tons, but he considered that only half could be picked and sold, resulting in a maximum annual production of 4,000 tons, a figure so far never attained, though for the 1936/37 season the tree crop is estimated at 4,500 tons. of which about 3,700 tons is expected to be harvested. His estimate of the production was based on his opinion that the clove areas were over-planted in comparison with the population, weeding was neglected, there was a lack of surplus labour for picking, and in the clove areas the roads were bad and transport facilities were insufficient.

Mr. Findlay estimated that the cost of picking cloves in Madagascar was a little higher than in Zanzibar but that the appearance of Madagascar cloves is better than Zanzibar cloves taken as a whole, owing to the weather being drier during the harvest there which enables the cloves to be dried better. This gives them an appearance advantage in the spice market. At one time the price paid for Madagascar cloves was somewhat higher than that paid for Zanzibar cloves, but recently the position has been reversed and the price for Zanzibar cloves is now higher.

There is an export tax on cloves of 5% *ad valorem* which compares with 20% in Zanzibar.

Only small quantities of stems are dried and these are used for local distillation of oil, though the larger proportion of oil is obtained from the distillation of leaves which is carried out in about 100 small scattered stills. No stems are exported at present.

The exports of leaf oil from Madagascar for the last 10 years have been as follows:—

1926	31 metric tons
1927	47 " "
1928	69 " "
1929	89 " "
1930	103 " "
1931	117 " "
1932	135 " "
1933	143 " "
1934	127 " "
1935	170 " "

There is an export duty on oil of 5% *ad valorem* levied on a value fixed periodically.

The clove industry in Madagascar, Mr. Findlay considers to be more or less a minor industry in a large country which has a great variety of climatic conditions and varied and extensive agricultural and mineral resources. He mentions that vanillin plantations which were extensive in the clove areas have been abandoned or were being used for coffee planting, but that, should the price of vanillin revive, vanilla will again enter into competition with cloves. Vanilla production in Madagascar reached its peak in 1929 with an export of 1,092 tons which dropped to 866 tons in 1932. The decrease was due to a heavy drop in vanilla prices which at one time rose to 200 francs per kilo but in 1933 dropped to the unprofitable price of 11 francs.

Mr. Findlay informed me that he had no reason to change his views on Madagascar expressed in his report.

The Dutch East Indies may also prove to be a possible competitor at some future date. Their production is mainly supplied to the spice market as the flavour is not considered to be as suitable for the local cigarette industry as Zanzibar cloves. When, however, Zanzibar supplies were irregular or prices were high, locally grown cloves were used for mixing, and if these circumstances recur it is possible that efforts may be made to grow a variety of cloves suitable in flavour for the cigarette industry to avoid dependence on foreign supplies. This possibility of future competition makes it all the more necessary for Zanzibar to maintain regular supplies to the Dutch East Indies of a suitable grade and to keep the price from rising unduly in a short crop season. The making of cigarettes containing cloves commenced as

recently as 1916. Care should therefore be taken to stimulate and maintain a supply connection with a comparatively young industry, probably vulnerable to changes of taste and habit.

The importance of this cigarette industry is appreciated by the Government of the Dutch East Indies, who have taken various measures to assist it. It is understood that the manufacturers themselves are now considering the possibilities of working on a co-operative basis.

In Ceylon and British Malaya there has been some revival in the cultivation of cloves, but the production in those countries, though of good quality, is so far negligible.

There is also competition to be faced in the North American and European markets of other essential oils and guaicol for the manufacture of vanillin against oil distilled from cloves and/or stems, thus placing a limit on the prices which can be obtained for sales to distillers. So far it has not been possible to ascertain the maximum price which distillers can afford to pay for cloves and stems.

### LOCAL DISTILLATION

By a decree dated the 25th February, 1918, the distillation of oil locally from clove bud, stem, leaf, or seed was prohibited, unless licensed by the British Resident.

For some years past the question of local distillation of clove oil has come under discussion when from time to time consideration has been given to means of improving the conditions of the clove industry. It was known that in Madagascar oil was distilled locally from leaves and to a small extent from stems by a number of small scattered distilleries. Madagascar now supplies leaf oil to the extent of 170 metric tons annually. It was, however, considered unwise to follow the example of Madagascar in distilling leaves as Mr. A. J. Findlay, the Director of Agriculture, who visited Madagascar in 1933 and reported on the clove industry there advised that the cutting of leaves was harmful to the trees.

In the spice markets, especially in India, it had been the practice of distributors to adulterate cloves before selling them to the consumer by mixing with them foreign substances or exhausted buds and stems obtained from overseas distilleries and especially from European continental countries. It was argued that this was not disadvantageous and that the market created for exhausted clove buds and stems had encouraged the distillation of clove oil and therefore the sale of buds and stems for that purpose. On further investigation, however, the practice of adulteration was regarded as harmful to the industry as a whole. In 1934 it was suggested by the then Clove Growers' Association that the position should be met by prohibiting the export of stems. This suggestion was adopted by the Government who issued a notice in the *Zanzibar Gazette* dated 16th June, 1934, announcing the intention of the Government to prohibit the export of clove stems except under licence and to remove the embargo on the local distillation of stems as from the 1st July, 1935.

This notice indicates that the Government were then considering seriously the question of encouraging local distillation.

Mr. E. H. Bovill, of Messrs. R. C. Treatt & Company, essential oil merchants, was conferred with, and subsequently the principal companies in England interested in clove oil were approached, with a view to obtaining their support and financial interest in a distillery to be established in Zanzibar. All of them declined the proposal. Mr. Bovill, however, showed interest in the matter and negotiations with him finally resulted in his forming a company on the 17th June, 1935, called "Zanzibar Distillers, Limited" for the purpose of erecting and operating a distillery in Zanzibar as from the 1st January, 1936, under a licence to be acquired from the Government to distil clove oil. Before this licence was granted a notice was issued by the Government dated the 28th November, 1934, stating that the Government had under consideration the granting of a licence for the local distillation of

stems and inviting applications for such a licence. This notice, which was circulated among the companies in England likely to be interested, including those previously approached, contained the following paragraphs:—

“During the period of the licence which would not exceed 11 years in the first instance; and subject to the continued payment of a reasonable price for all clove stems available in the Protectorate, the Government would be prepared to prohibit the export of stems. In considering what is a reasonable price the Government would have regard to the prevailing market rates of clove produce generally.

“It is not considered probable that the supply of stems alone would provide a sufficient supply of material to justify the erection of distillation plant on a scale that would enable economic production and disposal of clove oil.

“In these circumstances the Government would be prepared to permit the licensee to supplement the use of stems by the use of clove buds in such quantities and subject to such conditions as from time to time it may consider expedient.”

The only application received conforming to the Government's conditions was from Mr. Bovill and, upon his application being accepted, arrangements were made for forming the Distillery Company and the granting of the licence which was issued on the 5th December, 1935. The only other application received did not conform to the Government's published conditions.

Although the other companies were not informed when originally approached that export of stems would be prohibited, it seems clear that these companies, who originally declined to interest themselves in the project, had notice that the licence to distil oil locally would be supported by the prohibition of the export of stems. Presumably they could, if they had thought fit, have applied jointly or severally in competition against or in conjunction with Mr. Bovill for the licence.

Criticism of the granting of the licence for a local distillery on the ground that other companies were not advised that it would have a monopoly of stems does not therefore appear to be well-founded.

The distillery has been erected, but until quite recently had only been operated experimentally.

A dispute has arisen between the Government and the Zanzibar Distillers, Limited, as to the price at which the company could purchase stems for distillation.

It was considered by both parties that it would be undesirable for the licence to specify the price payable for stems or a definite formula on which it should be based. It limited the purchase of buds by Clause 6 as follows:—

“The amount in weight of clove buds purchased by the company in any one year reckoned from the 1st day of January shall not exceed one-eighth of the clove stems purchased during the same period unless the supply of clove stems becomes exhausted or unless they cannot be obtained at a fair price or unless the supply of clove stems is insufficient to enable the company to fulfil the obligations imposed upon the company.”

It is understood that the Distillery Company prefer stems to buds for distillation.

The Clove Growers' Association is apprehensive of difficulties arising out of the operations of the local distillery. As regards the purchase of stems and buds it considers that the Association's first duty is to get the best price for the growers compatible with the retention of markets and that if prices are reduced to meet the distillery which was established with the object of assisting the industry it may create discontent among the growers. The Board of the Association were not consulted regarding the issue of the licence for the distillery and its terms, but when the matter was discussed by the Executive Council of the Government in 1934 the Members of the Board, who were then Members of the Council, protested against the terms proposed. It appears that at that time the idea of mixing more stems with buds for making up a new technical grade for export to overseas distillers which has been under discussion was not then fully developed, nor could it have been, as official grading was not then in force. Without any such suggestion the Government considered that they



had no alternative but to favour the erection of a local distillery in order to utilise the stems which it had been generally agreed should be prohibited from being exported.

It may be noted, however, that in a memorandum dated the 3rd July, 1934, the Clove Growers' Association indicated the possibility of supplying distillers with a grade of buds with a quota of stems subject to the residue being destroyed to prevent its being used as an adulterant, but added that the export of stems other than for distillation should not be permitted.

When the licence was being finally considered and agreed upon instructions were given that the Board of the Clove Growers' Association should not be referred to.

As regards the purchase of stems and buds required by the distillery, there ought to be no difficulty in arranging for contracts being made through the Clove Growers' Association, provided a satisfactory basis for establishing the "fair price" of stems, for which owing to the prohibition of export there is now no other market, can be arrived at. There would appear to be no necessity for employing any intermediaries other than the Clove Growers' Association and it should be advantageous to both parties for the supply of stems and buds to the distillery to be consolidated through the Clove Growers' Association.

At a preliminary discussion with Mr. Bovill it was agreed that a "fair price" for stems was to be fixed by agreement between the Distillery Company and the Director of Agriculture. Presumably it was understood that in the event of an agreement not being reached any dispute would, in accordance with the conditions of the licence subsequently issued be submitted to arbitration. The Distillery Company contend that their original representations were that the price of stems should be based on the price of stem oil and not on the market price of stems. The price of stems increased in 1934 and 1935 by heavy purchases by overseas distillers in order to obtain stocks prior to the coming into force of the export prohibition, and since then the price has been fixed by the operations of the Clove Growers' Association. No details have been furnished regarding the price of stem oil or of any basis by which it could be calculated nor of distilling costs.

The discussions which have been taking place recently between the Government and the Distillery Company as to the price to be paid by the latter for stems appear to be academic at this stage as, owing to the heavy exports made during 1934 and 1935, the local stock of stems is negligible. Since the 1st January, 1936, when the prohibition of the export of stems came into force, the Clove Growers' Association has purchased stems from time to time, but its present stock is negligible and is subject to its own requirements for blending purpose. The amount of stems held in other hands is not known, but it is believed to be very small. The Clove Growers' Association stock of stems would not be sufficient to provide for the requirements of the distillery for more than two or three weeks. It is unfortunate that the Distillery Company did not purchase stems earlier in anticipation of a possible shortage, as was done by some of the overseas distillers.

As the new crop is estimated to be a very small one, the supply of stems therefrom is not likely to be adequate to meet the full needs of the Distillery Company and it will not be until the 1937/8 crop begins to move that they will be able to obtain sufficient supplies of stems, and then only if that crop is a fairly large one.

It might be possible for a general compromise to be reached whereby the Clove Growers' Association could supply stems when available at prices to be fixed on an agreed formula and for the Distillery Company to be given some latitude in regard to the supply of buds in consideration of their concurring in part of the stems being utilised to make a new technical grade for both local and overseas distillation. Their concurrence would be necessary to the utilisation of stems in this manner as they accepted the licence on the basis of the export of stems being prohibited and to add stems to buds beyond the quantities allowed in existing grades would be a means of avoiding this prohibition.

The new technical grade suggested would include a much higher percentage of stems than Grade 3 and would replace that grade. Until the 1937/8 crop is gathered it may not be possible, owing to the present small stock of stems, to produce the suggested new technical grade in sufficient quantities to supply all distillers' requirements, in which case Grade 3 would have to be maintained for a time and even then there may be a shortage in the supplies required by distillers. The price at which overseas distillers would be willing to take the new technical grade should form the basis for the price to be paid by the Distillery Company and so avoid controversy as to what is a "fair price". Presumably the Distillery Company have satisfied themselves regarding the costs of local distillation and that they will be such as to enable them to compete successfully against overseas distillers if they obtain their raw material on equal terms.

Owing to the present shortage of stems and the prospective small crop for 1936/7 and the possibility of similar conditions arising in the future the local distillery might be working alternatively on stems and then on a grade of buds and stems, thus producing sometimes stem oil and sometimes bud oil, and so not have a continuous supply of a specific oil. It may be desirable therefore to consider whether under the compromise suggested the local distillery might work continuously on Grade 3 and the proposed new technical grade, when available, and abandon the idea of distilling stem oil. It should, however, be examined whether the total demands for the new grade would be likely to result in a shortage or surplus of stems over a period.

In consequence of the shortage of stems the distillery only commenced commercial operations in July, 1936, by distilling Grade 3 buds of which three months' supply was sold to the Distillery Company by the Clove Growers' Association.

While in Zanzibar I visited the distillery, the production and capacity of which is stated to be not less than 100 tons of stem oil per annum. Presumably if buds were used with stems for distillation the oil output would be larger owing to the higher oil content of buds.

Since the foregoing was written I have had an interview with the Directors of the Zanzibar Distillers, Limited, in London. I understand from them that there are difficulties in the way of the company distilling buds, even with a larger admixture of stems than Grade 3, except as an alternative when stems alone are not available. In these circumstances it may be necessary to review the situation and to negotiate a new arrangement with the company.

### CLOVE GROWERS' ASSOCIATION

As far back as 1896 the Zanzibar Government were urged to make cloves a Government monopoly, and the records indicate that in 1913 the question of forming a Clove Growers' Association came under consideration but apparently was not proceeded with.

In 1922 the Government inaugurated a system for the payment of a bonus on clove trees and in 1923, in order to encourage the planting of new trees, a bonus on seedlings planted. These bonuses were continued until 1928 and 1930 respectively. Arising out of the work of the Agricultural Department in connection with the payment of these bonuses, a sub-department, called the Clove Growers' Association, was formed in 1927 with the following objects:—

- (1) To regulate the costs of production and fix rates of wages;
- (2) To gain control of the market;
- (3) To obtain funds for the systematic regeneration of the plantations, i.e., planting new trees.

The Association had nine district committees in Zanzibar and fifteen in Pemba. It is not clear what work, if any, these committees carried out, but apparently they were not effective.

An announcement by the Government that the Association would be the organisation through which the above-mentioned bonus payments would be made to clove growers and limited to members caused 9,000 growers to join the Association. Membership, however, declined when the Government bonuses were discontinued, although the Association continued to a limited extent to grant harvesting loans and advances on stored cloves and to provide free storage for cloves. It only handled a small proportion of the crop and did not therefore exercise any influence on prices or gain any control over the market, and ultimately its activities appear to have been reduced to regulating advances to growers made through the agency of the Agricultural Department.

Sir Alan Pim, in his report dated the 23rd May, 1932, raised the question as to whether there was any real need for the Association or whether it should be abolished or replaced by a Co-operative Society. He answered his own question by stating that the continuance and strengthening of the Association was imperatively required in the interests of effecting economies in cost of production and even more for the purpose of checking the evils inherent in the system of marketing. He advised that the best method of dealing with the situation was on the general lines proposed by Mr. Strickland in his report dated the 15th May, 1931, by giving a proper status and constitution to an organisation generally representing the interests of the growers. For this purpose he recommended that the Clove Growers' Association should be organised as a businesslike institution with competent commercial management and sufficient funds to enable it to make advances to growers and concern itself with the marketing of cloves, but that, while not commencing as a Co-operative Society as recommended by Mr. Strickland, that should be its ultimate aim. He considers that the financial requirements for making harvesting advances on stored cloves might amount to a maximum of 8 lakhs of rupees (£60,000). He thought it would also be advisable that the Association should have powers to give loans for the purpose of clearing shop debts or to facilitate sales through its agency. He also proposed that the Association should market copra if necessary, but without making advances on stored copra. He added that if the Association should decide to deal in copra it should do so as a matter of deliberate policy and not by gradually drifting into the trade.

Following upon Sir Alan Pim's report and a subsequent report made by Messrs. Kirsopp and Bartlett in 1933 on the clove trade in the East and a memorandum prepared by Mr. Kirsopp in 1934 in his then capacity of Chairman of the Advisory Board of the old Clove Growers' Association, that Association which had been placed under business management in 1933 was reconstituted, or rather a new Association bearing the same name was established with certain rights, powers and duties as defined in the 'Clove Growers' Association Decree dated the 6th July, 1934.

When submitting the Bill to the Legislative Council in June, 1934, the Government stated that during the past year almost panic conditions had prevailed in the local market, and that restriction of credit and shortage of money and general lack of confidence necessitated Government intervention through the medium of the Clove Growers' Association; that the Association with the financial support of the Government had already prevented a total collapse of clove prices, which would have brought the basic industry of the Protectorate to the verge of ruin; that the experience of the past years had proved that it was advisable and necessary to go further and that it was essential in the economic interests of the Protectorate to assist the Clove Growers' Association towards a measure of control of the whole clove industry with a view to eliminating ruinous private speculation and securing stable markets abroad.

They further stated that local market prices had been forced down to a considerable extent by the speculative transactions of exporters and dealers, and that these intermediaries were chiefly concerned in seeing that their own margins were secured at the expense of the growers.

Notwithstanding opposition and a request for delay the Bill was passed and the Decree duly issued.

The Decree provided (*inter alia*) that :—

- The Association shall be a body corporate;
- The operations of the Association shall be controlled by a Board of Management consisting of not more than seven members to be appointed by the British Resident;
- The Secretary-Manager and Assistants shall be appointed by the British Resident at such salaries and on such conditions of service as he may determine;
- The Board may appoint clerks and other staff;
- The Association shall be exempt from stamp duty, registration and inspection fees and other charges;
- The Association shall take over the functions of the institution heretofore known as the Clove Growers' Association together with all the assets and liabilities thereof;
- The Association shall have (*inter alia*) power to store, deal generally in and export agricultural produce, act as land agent, manager, receiver, or trustee, lend money on security to agricultural producers subject to certain restrictions, and acquire movable and immovable property;
- The Association shall raise funds on a Bank overdraft guaranteed by the Government and shall receive a levy on all cloves produced and exported which His Highness the Sultan will empower it to make.
- A reserve fund shall be created out of surplus net income which, when the funds of the Association are adequate to enable the Association to carry out its objects, shall be applied, after making good any losses and the repayment of any sums paid or guaranteed by the Government, to a bonus distribution, in such manner as the Board may decide, among agricultural producers who have marketed and sold produce through the Association.

The Board of Management of the Association at present consists of five members, namely :—

- Captain L. Tester, M.C. (Chairman), The Treasurer,
- Mr. A. J. Findlay, Director of Agriculture,
- Mr. J. Parnall, Administrator-General and Public Trustee,
- \*Mr. R. J. Dunlop, Manager, National Bank of India, Limited,
- Mr. C. A. Bartlett.

\*With deep regret it is recorded that Mr. Dunlop died on the 25th August, 1936.

No fees are paid to Members of the Board for acting in that capacity.

The Government Department of Agriculture owns nearly 100,000 clove trees.

The Administrator-General and Public Trustee administers properties containing about 90,000 trees and as mortgagor is interested in a further 50,000 trees.

The Secretary-Manager is Mr. C. A. Bartlett, who devotes the whole of his time to the affairs of the Association. He has two European assistants, Mr. J. H. Archibald, Assistant Secretary-Manager, and Mr. T. Cushny, Godown Superintendent.

The remaining staff is as follows :—

Clerical office staff	...	11
Non-clerical, godowns and outside	...	9
Messengers, godown and office police patrol, etc.	...	10

Unless the operations of the Association are materially extended, it is not considered that there will be any necessity to increase the staff except by one European, mainly to provide a necessary margin for illness and leave.

The auditors are Messrs. Leslie, Strachan & Co., Chartered Accountants, Dar-es-Salaam.

I have examined the office organisation and accounting system of the Clove Growers' Association, and have no criticisms to make thereon. I am satisfied that the business is well-organised and ably managed, and in my opinion the costs of management, especially salaries, are on the low side, and the administration is satisfactory.

The Board meets regularly each week and oftener when necessary and there is evidence that they take an intelligent interest in and collectively control the policy of the Association. The fact that they act in an honorary capacity has not discouraged their interest.

I consider that the Association is to be congratulated on the present personnel of the Board and the Management.

The Association duly took over the office and functions of its predecessor, and also its liabilities and assets which showed a deficit of Rs. 24,195.32 (£1,815), being the balance of liabilities in excess of the small amount of assets taken over. The principal liability was an advance from the Government of Rs. 25,000 (£1,875) which was repaid.

The operations of the Association have been financed by an overdraft from its Bankers guaranteed by the Government.

The first annual accounts of the Clove Growers' Association, made up to the 30th June, 1935, and duly audited, together with the Board's Report, were published on the 1st September, 1935. They showed an excess of income over expenditure for the year of Rs. 61,912.79 (£4,643) from which was deducted the excess of liabilities over assets taken over from its predecessor of Rs. 24,195.32 (£1,820) leaving a credit balance of Rs. 37,717.47 (£2,828).

Stock was valued at cost after deducting a small percentage from the weight to provide for wastage and shrinkage, and after adding, for handling, management and administration expenses, and interest, 3 annas per frasila (about 9½d per 100 lbs), being about 2% on the book value of the Stock which was credited to Income and Expenditure Account.

Stock is purchased ungraded but according to quality; sales are made of graded produce, and for export only. The net proceeds of sales were deducted from the Stock. Average sale prices were lower than the average price of purchases made during the year but somewhat higher than the cost of the stock sold which included purchases made in the previous year at lower prices. If the profit on sales had been brought into account the excess of income over expenditure shown for the year would have been higher and the book value of the Stock correspondingly increased. The market value of the Stock, however, at the date of the Balance Sheet by reason of increases in prices which commenced during the latter part of the financial period was higher than the book figures.

It is pointed out in the Annual Report that until October, 1934, no income was derived from the levy of 7 annas per frasila on all exports of cloves which is paid over to the Association as a contribution towards its expenses.

The year ended the 30th June, 1935, which was the first financial period of the Association under its new form and widened scope, is regarded as a preliminary period and its results in no way indicative of a normal year's operations. It was a period of partial experiment and of building up Stock with the double object of supporting local prices and obtaining sufficient Stock to control the market. It was not until towards the end of the year that the effects of this policy began to be apparent, and they are not fully reflected in the accounts for the succeeding financial year ending on the 30th June, 1936. During that period further purchases and sales were made and on balance the quantity of Stock and consequently the Bank overdraft have been considerably reduced. These further sales have been made at prices in excess of cost, and the surplus market value over the net book value of the remaining Stock has increased.

The operations during the financial year ended the 30th June, 1936, without taking into account profit on sales, the proceeds of which have been, as before, deducted from the book value of the Stock, have resulted in a surplus of about £100, which, with the balance brought forward on Income and Expenditure Account, has also been deducted from the Stock Account.

The sterling equivalents of the figures in the Balance Sheet as at the 30th June, 1936, prepared in East African Shillings, the present local

currency, compared with the figures (converted from Rupees, the then currency) in the published Balance Sheet as at the 30th June, 1935, are set out as follows:—

### BALANCE SHEET

LIABILITIES			ASSETS		
	30th June			30th June	
	1936	1935		1936	1935
	£	£		£	£
Sundry Creditors ...	15	18	Furniture and Equipment	27	515
Reserve for Leave Pay and Passages ...	632	—	Stationery Stock ...	75	112
National Bank of India, Ltd. Overdraft ...	229,681	433,266	Stock of Produce ...	228,825	421,641
Income and Expenditure Account ...	—	2,828	Payments in Advance ...	278	900
			Debtors ...	6,622	12,945
			Cash on Hand ...	1	1
	£230,328	436,114		£230,828	436,114

In the Annual Report of the Association for the year ended the 30th June, 1935, the aims and objects pursued by the Association are set out as follows:—

- (a) To secure to the grower the best price obtainable for cloves compatible with retaining or increasing overseas markets.
- (b) Simplifying the marketing of cloves and other agricultural produce including the extension of the system of grading.
- (c) Eliminating unnecessary transport, handling and financial charges and the uneconomic interposition of middlemen.
- (d) The collection of statistics.

The Board added that in regard to (a) their considered and maintained opinion is that overseas markets can be retained and expanded only if prices remain comparatively steady and for this reason a centralised body must hold stocks in Zanzibar from time to time in order to eliminate speculation.

It was further stated in the Report that the following services of the Association involving finance are at the call of all sections of the community of growers, irrespective of nationality and race:—

- (a) Grants of harvesting loans.
- (b) Storage loans, i.e., advance payment of part price of cloves deposited at growers' risk.
- (c) Free storage.
- (d) Transport paid by the Association without direct charge to the grower from Pemba to Zanzibar on all cloves placed on deposit or stored with the Association and on all produce offered for sale to or through the Association.
- (e) Cost of purchasing and selling organization including statistical services and free issue of market reports and other information advantageous to the growers and the trade.

Strong objection has been voiced against the wide powers of the Association, but they may be regarded as equivalent to the powers of a Limited Company provided for in its Memorandum of Association, which are usually on a wide scale to provide for possible contingencies. Some of the objections raised have been based on a misinterpretation of the powers set out in the Decree, which I understand were made fairly full to avoid the necessity of possible frequent supplements.

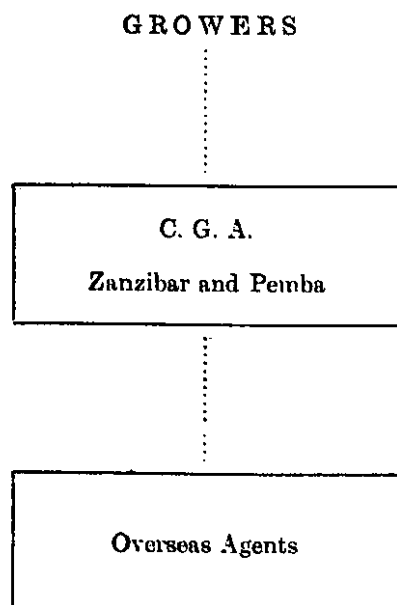
Notwithstanding the wide powers granted to the Association it has limited its main operations to those set out above and to selling copra for the Department of Agriculture and the Public Trustee. It hopes to extend its copra transactions. In a small number of cases the Association has, at the request of the Courts, agreed to act as Receiver of estates which has necessitated it managing these estates and harvesting the crops. Property valuation has also been undertaken on a small scale. It is claimed that the carrying out of these duties by the Association is advantageous to the particular interests involved.

The advances to growers are made free of interest. Harvesting loans, secured by chattel mortgages, are made for terms rarely exceeding six months and mainly for four months only, and are to enable the grower to pay for the labour of picking the crop and purchasing materials, etc., in order that harvesting can be commenced. It is customary for the grower to hand over cloves to be stored free on deposit and against such deposit further cash advances, free of interest, are made if required, and to the extent that stocks are available for security this process continues until the crop is completely harvested.

The preliminary enquiries necessary before advances can be made involve a considerable amount of time and trouble, and it is considered that the maximum service to growers cannot be given by the Association until there is some form of land register or the Association has accumulated sufficient accurate records to make it safe to dispense with certain safeguards now regarded as essential.

Growers who do not require financial assistance can deposit their crops for free storage by the Association, and it is usual for the Association to purchase cloves from these growers and also from those who have made deposits with them against cash advances. In addition purchases are made direct from other growers and in the Central Market. The Association has no monopoly of purchase, but obtains a preference over other buyers by reason of the facilities it gives, such as free storage and advances free of interest, and by the arrangement now being made by the Association to purchase in the Pemba sub-markets at the same price as in Zanzibar so that the Pemba grower will save the expense of transport from Pemba to Zanzibar which the Association will provide out of part of the proceeds it receives of the export levy now fixed at 1.85 shillings per 100 lbs.

The present policy of the Board of the Association is gradually to secure complete control of the clove industry. They hope to increase the Association's proportions of purchases and sales until ultimately it will be able to acquire the whole of each year's crop direct from the growers and sell direct to the consumers or merchants overseas. They consider that only by these means can the carrying over of the surplus of bumper crops to the period of a short harvest be safely financed and the Association be placed in a position to maintain reasonably stable prices and ensure to the growers the largest possible proportion of the sale price of cloves in the overseas markets, by the elimination of unnecessary intermediaries. They believe that, with the Association in full control of the industry the possibility of increased competition from Madagascar can be dealt with to the best advantage, and that the sale prices of grades used for manufacturing purposes can be limited so as to maintain and encourage the expansion of the market for cloves. They have indicated the position which they hope the Association will ultimately attain by the following diagram:—



The Board have also furnished me with plans illustrating the movement of the crop under existing conditions, which are set out in the attached Schedules "A" and "B".

A short harvest for the 1935/6 season has helped the Association, as the percentage of the crop which went into other hands was not of large volume; its own purchases were also less heavy and so reduced its further financial requirements, which had already been expanded by the necessity of holding the local market by absorbing the supplies offered from time to time by local stockists. In consequence it now holds a very large proportion of the local stocks, including floating stocks previously held by middlemen which hitherto were an unknown quantity. This has strengthened the position of the Association and for the time being gives it practical control over sales for overseas markets. The coming short crop for 1936/7, while advantageous in some ways to the Association, may become an embarrassment, as it may be obliged, in order to prevent overseas prices going too high, to dispose of most if not all of its stocks as well as the further purchases it may be able to make during the coming season to provide overseas customers with their requirements at prices that will not force them to competitive alternatives or adulteration.

In fact the coming crop may be so small as to make it necessary to ration overseas buyers at all events in certain grades. These circumstances indicate that in the long run there has not been over-production.

If the Association is denuded of practically all its stocks before the following season's crop begins to move, the stock reserve it has accumulated from the surplus of past bumper crops to meet subsequent shortages will all be utilised. Consequently the Association might for a time lose effective control over prices for overseas sales, the maintenance of which would depend upon whether it would be able to replenish its stocks by purchasing against competition a sufficient quantity of the 1937/8 crop, unless meantime it can be given a still more preferential or monopolistic position.

It would appear, therefore, that the present basis of the Association's operations still leaves the industry vulnerable to a speculative movement under certain circumstances.

I cannot find that the Association has sought to make any racial distinctions in its working. In fact the larger part of its purchases and sales during the past two years have been made from and to Indians, and a number of its harvesting advances have been made to growers of Indian nationality.

### FLUCTUATION IN PRICES

It will be seen from the statement set out on page 9 that the prices of cloves have fluctuated widely both before and since the War. The effect of the annual quantity of supplies on prices is generally indicated in this statement, but ceases to be noticeable after 1931. The wide range of prices in each year could hardly be the effect solely of market supply and demand, but to some extent must have been caused by speculation to which the fluctuation in annual supplies affords scope.

In the bumper crop year of 1933/4 prices reached their lowest level and since then have shown a gradual improvement both as regards average prices and the range of fluctuation. The Clove Growers' Association claims that although the price improvement is to some extent due to the short crop in 1935/6 and the expected short crop for 1936/7, its purchases caused prices to rise from the lowest figure during the second big crop year of 1934/5 and also flattened the price range. It considers that the fall in prices since 1930/1 is due to speculation as well as to world economic depression, and that the recent improvement is due not only to world economic improvement but also to the Association's purchases and the elimination of speculators. It points out that the two large crop seasons of 1933/4 and 1934/5 coincided with increased supplies from Madagascar and states that the fall in prices was accentuated by speculative stockists selling on a falling market, and by speculative exporters selling forward without holding stock and then trying



to bear the market in their efforts to cover themselves at lower prices. The Clove Growers' Association considers that in these circumstances only its purchases prevented a still further drop in prices which would have had disastrous consequences.

### STABILISATION OF PRICES

It has been stated that, in so far as fluctuation in clove prices results from vagaries of production, stabilisation cannot be effectively achieved without restricting or regulating production and that this is not contemplated; but the annual figures of supplies and exports over a period indicate that there is no effective over-production necessitating the restriction of production and that the main problem is to find effective means for carrying over the surplus of a bumper crop year to meet market requirements during a subsequent lean year, and to flatten out the range of prices.

The danger of over-production may arise if Madagascar supplies are largely increased in the future, or if some of the export markets are lost, but an organisation in existence fully representative of the Zanzibar clove industry would be in a better position to deal with these possibilities should they arise, than an unorganised number of growers and exporters.

In view of the past record of prices and the importance to the whole country of preventing growers from being reduced to a precarious position and of protecting those already burdened with debt, it appears necessary that some arrangement should be adopted to secure a reasonable minimum price to growers for their crops. The question is, what are the best methods of achieving this result?

A suggestion has been made that prices should be fixed by the Government at long-term intervals with six months' notice of intended changes. The fixing of a minimum price by legislation can be frustrated in various ways. Moreover the fixing of a minimum purchase price would, if loss is to be avoided, necessitate the fixing of a minimum sale price, which may not be practical in certain circumstances. The conditions of certain export markets necessitate sale prices being regulated to ensure continuity and if possible extension of consumption. Sale price fixing by the Government would be too inelastic and could also be evaded.

There appears to be a general consensus of opinion that minimum prices to growers should be assured, and there is no strong local objection to the Clove Growers' Association performing this function, but there are differences of opinion as to how it should be effected. The Clove Growers' Association could maintain minimum prices at any time. If other buyers were prepared to pay the same price or more and the Clove Growers' Association did not have to make any purchases the object of securing a fixed price to the grower would be achieved. That, however, is unlikely to occur, at all events in a normal or bumper crop year. Even if it did, there would still remain the necessity of ensuring that sale prices were not allowed to fall unduly, or rise too high when circumstances were favourable for an increase, so as to prevent a reduction or loss of demand in certain overseas markets. Some control over selling prices would be required to protect any stock obtained by the Association in assuring a reasonable price to the growers.

Stabilising prices does not mean that they should be fixed but that their range should be minimised. Buying and selling prices may vary from season to season and even during a season, although it would be advisable as far as possible to retain a fixed buying price for each season so as to avoid discrimination of prices between growers. Wide variations of prices between seasons have taken place in the past partly because purchases and sales have been made by middlemen stockists after the normal crop season is over.

If there were an organisation for orderly purchase and sale which would prevent abnormally low prices in a bumper crop year and unduly high prices in a short crop year, sale prices also could be prevented from fluctuating widely from year to year, which would prove advantageous to overseas buyers and enable them to plan ahead. This would encourage the

making of long-term sale contracts which in turn would assist the stabilisation of purchase prices and ensure a firmer footing in competitive markets.

### CO-OPERATIVE SOCIETY AND MONOPOLY

The difficulties of the clove industry have occupied the minds of the Government and others interested in the industry for more than a generation.

As far back as 1896 a London merchant put on record his views that :—

“To meet the present emergency there is apparently but one remedy, viz: making cloves a Government monopoly.”

A Committee appointed by the Government to discuss the rationalisation of the Clove Industry in 1929, of which two Indians were members, stated in its Report :—

“While we are not agreed as to the method of regulation which would be most suitable for adoption in Zanzibar we are unanimous in the view that the establishment of stable prices and steady export would be of great benefit to the industry. We therefore think that at an early date measures should be undertaken for the purpose of rationalising the export of cloves from the Protectorate.”

Mr. C. F. Strickland in his Report dated the 15th May, 1931, recommended the re-organisation of the then Clove Growers' Association as a Co-operative Society with which local Societies would be affiliated.

Sir Alan Pim in his Report dated the 23rd May, 1932, pointed out that in considering whether the Clove Growers' Association should be replaced by a Co-operative Society, it was desirable to have a clear idea as to the composition of the body of clove growers and set out the following approximate figures of owners :—

	No. of owners	No. of plantations	No. of trees	Average No. of trees per plantation	Average No. of trees per owner
Zanzibar					
Arabs	1,218	1,869	735,554	394	604
Swahilis	4,840	7,070	236,758	33	49
Pemba					
Arabs	2,973	6,819	888,250	130	298
Swahilis	8,717	15,117	896,439	59	108
Totals	17,748	30,875	2,757,001	89	155

It will be observed that the above figures differ considerably from those given in the Report of the Commission on Agricultural Indebtedness in 1935, quoted on page 2. Part of the differences arise from effluxion of time.

Sir Alan Pim added that there was no large homogeneous body of substantial growers likely to take a long view of their own interests, that some agency was needed to protect their interests both in the direction of reducing the costs of production and marketing, also that the necessity for an Association was more pressing in connection with the organisation of the export market. He then expressed the opinion that the best method of dealing with the situation was on the general lines proposed by Mr. Strickland by giving a proper status and constitution to an organisation genuinely representing the interests of the growers themselves, and that, while the ultimate aim should be the formation of a real Co-operative Society with a definite membership, in the early stages it would be necessary to maintain a close connection with the Government and concentrate general control in the hands of a small Committee corresponding to the Advisory Board of the then existing Clove Growers' Association, and that all clove growers should be considered as potential members.

The Government in their comments dated the 12th December, 1934, on the Report of Mr. K. P. S. Menon dated the 10th September, 1934, stated :—

“For the present it is essential that the Clove Growers' Association although not in name a Co-operative Society, should perform on behalf of the producers the functions of such a Society, otherwise, as Mr. Strickland pointed out, dealers will command the market and pay the producers the prices which suit themselves, while there would not, and could not, be any rationalization of the industry which is of such

great importance to the whole community. The only effective method of safeguarding the industry is by placing the Association in a monopolistic position" . . . . .

"The production and consumption of cloves over a period of years roughly correspond, as there is no great accumulation of stocks, and it has never been necessary to destroy surplus stocks. The fact, however, that the clove crop is very variable in quantity from one year to another is bound to lead to violent fluctuations in price unless there is some organization in a position to carry stocks and to distribute produce evenly as consumption demands."

" . . . . . Control of a fraction of the produce only would not enable the Association to stabilize prices or secure adequate control of markets. The freedom left to private speculators would be a source of danger to the finances of the Association and consequently to the funds of the Protectorate."

I agree with the views expressed by the Government as set out above and consider that, as Sir Alan Pim, in effect, recommended and the Government state as being their policy, in existing circumstances the Clove Growers' Association "should perform on behalf of the producers the function of" a Co-operative Society.

Inevitably a Clove Growers' Co-operative Society would obtain a monopoly of the crop as they would, as other producers' Co-operative Societies have done, take over for sale, or purchase direct for re-sale, their members' production, and by so doing would control the sale price subject to the competition of suppliers from other countries of similar or competitive products.

Local opposition would no doubt arise from those whose activities would thereby be limited or eliminated. It is not unnatural nor unexpected that such opposition already exists against the quasi monopoly now obtained by the Clove Growers' Association. Some of the objectors to the Clove Growers' Association have, however, admitted that they could not object to the formation of a Co-operative Society and all that it would imply but only to the Society being supported by Government funds.

If the Clove Growers' Association be given, in effect, the status and powers of a Co-operative Society, then it will *ipso facto* become monopolistic. By so doing the financial risk of the Government in connection with their guarantee of its borrowings would be considerably reduced and there would be no trade rivals to complain of privileged competition. Such rivals, however, whose services were useful to the industry could be retained and utilised, not in competition with, but by agreement and in connection with the Association functioning on the lines of a Co-operative Society.

### EFFECTS OF MONOPOLY

Even if a complete monopoly were attained, the assumption that this would render destitute a large number of people, mainly Indians, appears to be somewhat erroneous.

The people affected would be the small shopkeeper, the local dealer, the middleman speculator and the exporter, who is also sometimes a grower and dealer. In very few cases are they wholly dependent on the clove industry. The small shopkeeper's main business is that of selling a variety of commodities and if his purchases of cloves or the receiving of them in kind in payment for goods sold on credit ceases, he loses a part but not the main part of his business and this loss would be to some extent, if not wholly, compensated by a larger turnover in general goods if by improved prices the purchasing power of the grower is increased. It is understood that the number of local dealers now trading in cloves only is small and the volume of their clove trade has already been reduced by the increasing direct sales now being made by growers to the Clove Growers' Association.

Middlemen speculators who have no direct interest in the industry and buy cloves merely in the hope of obtaining profit while running the risk of incurring a loss are of no assistance to the industry. If they make losses they should be thankful to have them prevented. If they make a profit it would be from a speculation, which could not or should not be regarded as the economic basis of their existence. Such a profit reduces the net margin between buying prices and ultimate selling prices which should be for the benefit of the growers or those who are of service to them.

If minimum prices only are established without further control the speculator's loss is limited, but his chance of making profits is not diminished unless selling prices are also controlled and in that case the speculator is an unnecessary factor. It has been contended that he performs a useful rôle in supplying funds to carry surplus cloves from one period to another. As, however, his tendency may be to buy on a rising market and sell on a falling market he might prove a danger and embarrassment to the efforts to stabilise prices. Moreover he may not have sufficient financial resources to buy largely enough to stop a fall in a critical period.

General merchants would remain with their other business and moreover with most of the stock of cloves now in the hands of the Clove Growers' Association their clove turnover has already been considerably curtailed, and in some cases has ceased. The exporters in the business are few and their profits small. Most of them are exporters of other commodities and also importers.

Therefore, although all these people may lose business and consequently some income, which would be partly compensated by increased business in other directions arising from the improved purchasing power of the growers, it would not in general represent their main means of subsistence and only a limited number would be likely to be seriously affected.

A monopoly control does not necessarily mean that all those previously engaged in the industry would be eliminated. There would be intermediary services still to be performed and it should be possible to employ some of those already connected with the industry in various ways where their services will be useful and can therefore be justified.

The opinion has been expressed that a number of the smaller dealers and shopkeepers are already only just able to "make both ends meet" on a low standard of living and that the loss of the clove part of their business would put them in a precarious position. If, however, they have not made undue profits on cloves their loss would be reasonably offset by the increase in the turnover of their general trade as already mentioned. In cases where this is not possible the reason may be that there are too many small dealers and shopkeepers in the Protectorate.

According to the census the Indian population of the Protectorate increased from 8,050 in 1910 to 14,242 in 1931. In the latter year the total population was 235,428, of which there were

In commercial occupations (principals)	361
Shopkeepers	5,013
Hawkers	1,851
	<hr/>
	7,225
	<hr/>

Therefore one person in 33 of the population was engaged in trading, while shopkeepers were in the ratio of 1 to 47 and hawkers who are probably competitors of shopkeepers 1 to 127, whilst of shopkeepers and hawkers combined there was 1 to serve every 34 of the population.

### REPRESENTATIONS RECEIVED

Both before and after my visit to Zanzibar I attended meetings of the Clove Sub-Section, East African Section of the London Chamber of Commerce and had the opportunity of hearing their views on the clove industry and the activities of the Clove Growers' Association, and the local distillery.

While I was in Zanzibar I received Memoranda from:—

- The Arab Association,
- The Indian National Association,
- The African Association,
- The Zanzibar Chamber of Commerce,
- Various business firms interested in the clove trade.

I had the opportunity of discussing these Memoranda with deputations and representatives of the Associations and firms.

I also had interviews with a number of persons directly and indirectly interested in the industry.

The several Memoranda received from the Arab Association unreservedly support the Clove Growers' Association and its present activities and suggest some extension of the assistance and facilities now being accorded to growers by the Clove Growers' Association.

Only one Memorandum, which was anonymous, suggested that the Clove Growers' Association should be completely abolished.

The Memorandum of the African Association dealt with matters wholly extraneous to the clove industry and their representative had no views to express thereon.

The Clove Sub-Section of the East African Section of the London Chamber of Commerce, the Indian National Association and the Zanzibar Chamber of Commerce, and various merchants and exporters, were all emphatically opposed to the Clove Growers' Association as at present constituted, and objected to its wide powers and its present scale of operations.

One or two Indian dealers and exporters who owned plantations admitted individually that as growers only they did not object to the Clove Growers' Association but that as dealers and exporters they were definitely opposed to the full scope of its present activities.

It is evident that the growers as a body welcome and strongly support the Clove Growers' Association but that those otherwise interested in the industry as middlemen, shopkeepers, dealers and exporters are, in general, equally strong in opposing it. Both support and opposition appear to be based on self interest.

The following is a summary of the criticisms and suggestions made by the Indian National Association:—

1. The fall in prices of cloves, which reached their lowest level in January, 1933, was due in the main to world depression, and natural, though exceptional, causes such as a bumper crop and expansion in the Madagascar production. It was not due to, nor accelerated by, wholesale and ruinous speculation by Indian merchants, though it is not denied that some speculation took place. Reaction would occur naturally through the swing of the pendulum, especially as normal recovery is now taking place. Improvement in prices since 1933 was not due to the operations of the Clove Growers' Association but to normal recovery which is taking place in other commodities as well, such as copra.
2. No case existed for Government interference with normal trading methods, far less for such a dangerous and drastic scheme as an attempt to create a monopoly. Any control, if necessary, need only have consisted of temporary measures to tide over a passing crisis.
3. The present operations of the Clove Growers' Association are a gamble on a large scale with public funds as dealings in cloves must necessarily be of a speculative character by whatever agency conducted. Risks which may be taken by a business man may not be legitimately taken by the Government with taxpayers' money. The possibility of increased competition from Madagascar makes the position of the Clove Growers' Association even more dangerous.
4. A monopoly is objectionable in principle. Ordinary business methods stimulate activity and distribute profits and advantages more fairly among the population. Drastic control is not warranted by the position of the industry.
5. The combination of the functions of Government control with those of a trade rival is an attack upon the ordinary right to trade and cannot be justified in any circumstances.
6. If it is considered that the economic position of the country demands that some measures should be devised to assist the clove grower no objection would be raised, but there is no need for that purpose to interfere with the export trade.
7. The operations of the Clove Growers' Association have almost entirely eliminated the Indian trader and have deprived many middlemen of their principal or entire means of subsistence, although they served a useful purpose and did not obtain exorbitant profits. The services they rendered, the Clove Growers' Association does not, cannot, and should not render. The total stocks held by middlemen were sufficient in total to exercise a real influence in supporting prices, therefore

the elimination of the middlemen is disadvantageous to the grower and adversely affects the industry. Only in a highly organized industry may there be some foundation for the criticism that middlemen are unnecessary and undesirable and derive a profit at the expense of the grower out of all proportion to the services rendered.

8. No objection is raised to a minimum price being guaranteed to the grower. It is suggested that this could be effected by either the Government or the Clove Growers' Association or any other organization making sufficient advances to growers against the deposit of cloves and if necessary by reverting to the practice of collecting the export tax in kind which would give the Government sufficient stocks to exercise a controlling influence in the market. There would be no objection to a special organization if that were considered necessary. The organization should in fact, and not in name only, represent the growers and in the free market envisaged, the exporters also.
9. The Clove Growers' Association as at present constituted should be abolished and ordinary business methods restored. If it is continued in any form its operations should be limited to promoting the welfare of the grower by financial assistance and advice regarding cultivation, market conditions and prices, and labour. These are its declared objects which it admits in its Annual Report it has not fulfilled. Therefore it is assumed that it has subordinated its desire to assist the grower to its determination to eliminate the Indian trader. It should not buy or sell locally, or in the foreign market. Foreign markets have been antagonised by it and special objection has been taken in London to its appointment of a sole representative in the U.S.A. Information is held that the Association has sold direct to foreign markets presumably by forward contracts. Its wide powers under Clause 13 of the Decree are unnecessary and may constitute a menace not only to the trading community but also to the Government.
10. The levy of 7 annas a frasila amounts to about 6 per cent of the price and is a heavier drain on the industry than the normal profit of exporters and should be abolished. It gives the Clove Growers' Association an unjustifiable advantage over other exporters. This appears to be an abuse of authority and a determination to drive every other exporter out of business. Funds for the assistance of the grower can be obtained in other ways, such as a form of cess.
11. The export licence fee is out of all proportion to the turnover in the business and should be abolished. Trading in cloves should be taxed by the ordinary general dealers' licence for which the fee is already sufficiently high. The right of inspection of exporters' books should also be cancelled. Inspection which previously took place in the exporters' own godown is now done only at the Customs, except in the case of the Clove Growers' Association, involving the exporter in extra expense.
12. The stockists' licence fee of Rs. 15 for permission to stock not more than Rs. 500 value of cloves should be extended to cover any amount. The small stockist exercises a healthy influence on the market and should be encouraged.
13. It is undesirable to fix a maximum price for export sales. The danger of losing existing markets can be more accurately estimated by the private merchant than by a Government organization, and the legitimate influx of money is all to the good of the country.
14. The prohibition of the export of stems should be removed, or alternatively a minimum price for stems should be guaranteed to the grower.
15. It is realised that the issues raised are primarily economic, and not essentially racial, and responsibility is disclaimed for introducing controversy on racial lines, but the Zanzibar Government took the view that the problems are essentially racial in character, and this is the justification for offering comments from the Indian point of view. It is considered that the objects of the Clove Legislation and the establishment of the Clove Growers' Association have been racial as well as economic and are directed against Indians. The Land Alienation Decree and the Moratorium are strongly objected to. The latter has prejudiced Indian interests and is a further confirmation that the Clove Legislation is not based on purely economic considerations but directed against the Indian community.

The Memorandum received from the Zanzibar Chamber of Commerce, the majority of whose Members are Indians, and from several business firms, took up in broad outline a similar attitude to that of the Indian National Association.

The Zanzibar Chamber of Commerce, however, while desirous of seeing the activities of the Clove Growers' Association limited, suggested that it should provide adequate control of both purchase and sale prices by being prepared to buy and sell at fixed published prices, but considered that any purchases and sales should be made not in competition with merchants but only when the Association is approached by growers and exporters, and that it should limit its sales to the local market and not make any sales overseas; also that the funds of the Association for financing growers and

controlling the market in the manner indicated should be limited to £250,000. It was not explained how under such an arrangement the risk of losses could be guarded against.

The Chamber considered that the organisation of the Clove Growers' Association was very expensive. It suggested that the Clove Growers' Association had discriminated between merchants by quoting different prices with the object of playing off one against another.

The practice of the Clove Growers' Association of demanding exporters to produce cables from their clients overseas as proof that they had orders in hand and were not buying to sell on consignment was also resented.

It was also asserted that the Clove Growers' Association was a one-man show, i.e., that the business was run entirely by the Secretary-Manager who either was not or could not be controlled by the Board.

The Chamber complained that the Board of the Association was controlled by Government officials who lacked business experience, and suggested that it should be strengthened by the inclusion of clove growers, clove dealers, and merchants not directly interested in the industry. Some of its representatives admitted, however, that it would be difficult to find persons suitable and who would be sufficiently independent and disinterested.

Strong exception was taken to the attempt to create a monopoly and its effect of gradually eliminating dealers and exporters from the market.

Certain exporters complained that the export tax on cloves should be reduced on the ground that it was too heavy in comparison with the 5% export tax in Madagascar, a disadvantage that would be accentuated if Madagascar competition became greater by reason of increased production. It was also suggested that the export levy should be reduced.

I have carefully considered the foregoing points, but as most of them are dealt with in this Report it is not necessary to comment upon them in detail. It may, however, be desirable to state that from my investigation I am satisfied that there has been a large speculative movement in the past and that speculation, as well as other causes, has had a considerable effect on prices; that without some form of control over the stock of cloves a basis for speculative transactions will remain which will be harmful to the industry; that effective control can only be obtained in the form of a monopoly, which will reduce to a minimum the risk to the funds employed and enable potential foreign competition to be faced to the best advantage. Dealings in cloves need not "necessarily be of a speculative character by whatever agency conducted". The Clove Growers' Association by its operations has shown that its administration and management are satisfactory and by the experience it has gained it is indicated as the proper organisation to exercise the necessary control.

Local dealers and stockists are individualists and as such are not likely to take the long view, and would not be able to decide when and to carry out what steps were necessary for the good of the industry as a whole. Moreover, it is doubtful whether they are financially strong enough to carry for the required length of time any substantial surplus stock of cloves arising from a bumper crop. The large losses they have incurred in the past do not inspire confidence in their judgment or present financial strength.

A number of complaints against the methods of the Clove Growers' Association were made to me verbally by representatives of the Indian National Association, the Zanzibar Chamber of Commerce, and others. I investigated a number of them. Some were based on unreliable local gossip and were without serious foundation, some I was able to prove to be incorrect or based on misunderstanding, and others resolved themselves into the question of one individual's word against that of another.

Other questions were raised such as the appointment by the Clove Growers' Association of a sole representative in the United States of America, and sales through such agent; and discrimination in quotations by the Association which appeared to arise partly from quality differences

existing in each grade and partly from the effects of a gradually rising market. These matters the Association claimed to be dealing with on business lines.

Some doubt was expressed as to the accuracy of the stock considered to be held by the Clove Growers' Association, although the amount of such stock had not been published and was therefore not known. The Accounts of the Association for the year ended 30th June, 1935, had been duly audited and the auditors had not raised any question about the stock. In view, however, of the doubt expressed, I asked that the auditors, when examining the Accounts of the Association for the financial year ended the 30th June, 1936, should give special attention to the question of stock and be allowed to report to me thereon. The audit has now been completed and I have received a letter from the auditors stating that they have satisfied themselves as to the accuracy of the stock and that there is no substantial difference between the actual and recorded stocks.

The Clove Growers' Association itself represented that its position should be strengthened by being granted a sole export licence, which would enable it to control the sale for export of all cloves, including those stocks which, by reason of the growers' burden of debt or other causes, find their way from the growers into various hands. This, however, would not prevent the holding up of such stocks which, in certain circumstances, might embarrass the efforts of the Association to regulate prices. A monopoly of buying would be more effective.

### RECOMMENDATIONS

I submit the following recommendations for the serious consideration of the Zanzibar Government:—

- (a) The Government to obtain legislative authority to restrict the purchase of cloves to licensed buyers.
- (b) A licence to buy and receive deposits of cloves to be issued by the Government to one or more persons or firms or corporate bodies at its discretion for such period or periods and renewable or revocable on such terms and conditions which may be varied from time to time as the Government thinks fit.
- (c) A licensee to have power under the licence to appoint agents for the purpose of purchasing and collecting cloves in various districts on behalf of the licensee, subject to notifying the Government of the issue of sub-licences.
- (d) The Government in the first instance to issue a licence to buy and receive deposits of cloves to the Clove Growers' Association only.

The Government to stipulate and declare that the licences issued to the Clove Growers' Association shall be used by the Association as though it were a Co-operative Society of which all clove growers were members and that all purchases of cloves and their subsequent sale shall be for the ultimate benefit of all growers of cloves.

- (e) The Government to authorise the Clove Growers' Association as buying licensee to fix the purchase prices for cloves from time to time according to quality, and if possible for each season. After the end of each financial year when the results of the Association have been ascertained and audited the profit or loss remaining after making such reserves as the Board of the Association deem advisable to be taken into account in fixing prices for the succeeding season so that all growers may participate in surplus profits or losses as the case may be according to their crops in such succeeding season.

(NOTE.—An attempt to pay a bonus to growers out of a particular year's surplus profit according to the growers' production for that year would entail considerable expense and delay owing to the heavy amount of book-keeping that would be entailed due to the large number of growers. Moreover, complications would arise in regard to cases where growers sell their crops on the trees. Although annual crops vary, it is presumed that except for new trees coming into bearing or for other special reasons such as the sale of a plantation, a particular grower's crop should on the average be proportionate to others.



In practice, with full control over the market, there should not be very wide fluctuations in selling prices, so that the surplus profit or loss in a particular year to be adjusted on subsequent purchase prices should not be large.)

- (f) The Clove Growers' Association to divide Pemba and, if necessary, Zanzibar, into suitable clove districts and to appoint purchasing agents from the most reliable and experienced existing local dealers and, if necessary, shopkeepers irrespective of nationality, under the control of a direct representative at each district headquarters.

These district representatives and the agents might also be trained to arrange preliminaries in connection with advances required by growers and to advise growers in regard to improved methods of cultivation and the organisation of labour for picking, etc.

- (g) The agents to purchase cloves from growers at fixed prices according to quality on behalf of the Association on a commission basis plus, if necessary, some agreed remuneration for any additional services for which they may be utilised. The fixed prices to be notified to growers or brought to their attention in such a way that they will be aware of the current market prices when dealing with agents.

(NOTE.—As purchasing will be only a seasonal and therefore part time occupation, such an arrangement should prove advantageous and economical as otherwise it would be necessary to engage agents for each season. It would be preferable to engage those living locally and already in touch with growers rather than a temporary staff some of whom would not have local knowledge and experience.)

- (h) No sales other than to the local distillery to be made by the Association except for export and such sales to be made through licensed exporters, unless and until overseas buyers desire to buy direct and there are advantages to the industry in their so doing after taking all factors into consideration, or unless circumstances arise which would necessitate direct export by the Association.
- (i) Export licences to be issued by the Government and the export licence fee to be reduced to such a sum as will be within the means of a small exporter who should be encouraged to explore for new markets and bring orders, however small, from countries outside the main markets and thereby broaden consumption. The right to limit the number of licensed exporters to remain. Exports sales f.o.b. to be made only to licensed exporters and not, as at present, to unlicensed exporters, which though claimed to be legal, is against the spirit of the law.

(NOTE.—With all the stock under one control there will be little scope for exporters to speculate. They may compete among themselves for business by sharing their margins with buyers, but their competition should not be harmful to the industry and their continued employment will encourage them to endeavour to widen markets. It should be considered whether export licences shall be limited to exporters with a local place of business.)

- (j) The export levy to be abolished and the expenses of the Clove Growers' Association to be covered by the margin between buying and selling prices. Other fees for dealing in cloves should be re-adjusted and consolidated.
- (k) A re-engagement of the terms of the licence to the Zanzibar Distillers, Limited, to be negotiated, including the creation of a new technical grade of cloves for distillers' requirements and for the Distillery Company to be allowed to purchase buds of the new grade and/or stems as they may require subject to available supplies, and for any surplus stems not required by the Distillery Company to be exported, the Distillery Company paying for buds and stems the local prices equivalent to the prices paid by overseas distillers.

When a decision has been arrived at regarding the proposed new technical grades, it should be announced that the various grades are permanent and not experimental.

- (l) It should be considered whether it would be advisable and advantageous for the sole sales representative in the United States of America and any others whom the Clove Growers' Association may contemplate appointing in other markets, to be advisory agents not sales agents, furnishing the Association with information regarding statistics, market

conditions and prospects in each particular country and, if necessary, supervising propaganda to widen the sale of cloves, at a fixed fee or an agreed commission of the turnover in each particular country or market. Sales influenced by such agents to be effected through the local exporters so as not to discourage their co-operation.

- (m) Advances against deposit of cloves with the Association to be discontinued.

(NOTE.—A grower who has deposited his cloves for free storage requiring cash would be able to sell his cloves to the extent of his requirements at the then fixed price in force. If a price can be fixed for each season and wide fluctuations in prices are removed, there will be little incentive to a grower to withhold the sale of all or part of his crop and sales will result in the freer circulation of money and assist in meeting debt services more promptly.)

- (n) In order to ascertain to what extent actual co-operation can be established, efforts should be made to form a small local Co-operative Society in a suitable district, which, if successful, might gradually be extended to other districts and so form a nucleus for the ultimate formation of an effective Co-operative Society for the whole industry linked up with local district Societies. The experimental Society might be given some status by being used as the medium for making advances in that district, for combination in regard to labour and for dissemination of information as regards better methods of harvesting with the object of improving the quality of the crop, etc. It might also develop into a collecting centre and so facilitate the marketing of the crop in that particular district.
- (o) It should be considered whether it would be advisable and advantageous to establish an Advisory Committee consisting of two representatives of growers, one for Zanzibar and one for Pemba, two representatives of exporters and a representative of the Clove Growers' Association to confer from time to time with the Board of the Association and to discuss purchase and sale prices to be fixed from time to time, the actual fixing of prices remaining, however, as the duty and responsibility of the Board.
- (p) The possibility of revising the method of calculating, levying, and collecting the export tax or duty on cloves might be considered, particularly as to:—
- (1) Whether the tax should be calculated on an *ad valorem* basis, sealed according to grades;
  - (2) Whether it would simplify dealings in cloves if export sales were quoted "cum-tax" instead of "ex duty" as at present; and
  - (3) Whether if the prices were so altered the Clove Growers' Association should collect the tax in the sale price and pay over to the Government periodically the amount representing the tax which should reduce the expenses of collecting the tax.
- (q) The Government should, if possible, deal with the questions of Alienation of Land and Agricultural Debt at the same time as the foregoing recommendations, if they are prepared to adopt them,—the Land question by publishing a revised formula defining an agriculturalist and non-agriculturalist without racial distinction,—and the Debt question by raising the moratorium under suitable restrictions and limiting rates of interest and by formulating a scheme for dealing with debts.

If, as would appear desirable, the Government should provide funds to take over gradually such part of the Agricultural Debt as they consider necessary as differences between Debtor and Creditor are settled by consent or through a Conciliation Court, I suggest that an Agricultural Credit Association be formed for the purpose of making the necessary advances, with a special Board controlled by the Government, distinct from the Board of the Clove Growers' Association, but with one or two common members and under a different Chairmanship.

The staff of the Clove Growers' Association who are or will be in close touch with most of the growers, either directly or indirectly through their local Agents, might be utilised for the working and general administration of the Agricultural Credit Association with economies for both Associations.

If these recommendations are favourably received it is important that an early decision should be made to adopt them in order that the required time will be available to create the extended organisation necessary so that it will be ready for dealing with the 1937/38 crop, which, following upon two consecutive short crops may very likely be a bumper harvest.

The carrying out of the recommendations will probably necessitate, especially in a bumper crop year, an increase in the amount of financial support required by the Association from time to time. The Reserve arising from profits which the Association is likely to make under existing market conditions by the realisation of its present stocks and its purchases and sales of the 1936/7 crop and the strengthening of its position by giving it the wider powers recommended would, however, reduce the risk in connection with the employment of funds placed at its disposal.

### RACIAL ISSUES

It is regrettable that racial issues should have arisen in regard to the problems affecting the clove industry, but if, as is the case, necessary economic adjustments adversely affect practically one racial section of a community by reason of its particular financial and economic interests and activities, it is evident that a racial question arises by incidence and not necessarily from racial feeling.

If, however, the steps taken, and which may be taken, can be demonstrated to be directed towards the improvement of the clove industry as a whole, they must prevail as being in the best interests of the country even though they may unfortunately cause individual and racial hardships.

The recommendations made in this Report are based solely on economic considerations.

### CONCLUSIONS

A careful study of the clove industry in detail from production to the ultimate sale of cloves, and consideration of the various reports and memoranda on the subject and the representations made to me in writing and verbally during my investigation in Zanzibar lead to the following conclusions:—

There is no actual excess production of cloves over the world's requirements as over a period of years production is practically equal to the demand. Therefore if annual crops were uniform there would be no serious problem to solve. Not only, however, are there violent fluctuations in the annual production of cloves but there is no uniformity in the occurrences of large and small annual crops.

The problems, therefore, divested of all side issues, are:—

1. How to carry over the surplus production of one year, or years until, as in the past, supplies are adjusted to demand by a short crop, or crops, and how and by whom are the necessary financial resources to achieve that object to be provided?
2. How to reduce the wide fluctuations in buying and selling prices caused by the irregularity of crops and speculation, and to stabilise prices within reasonable limits?
3. How to obtain the best price for the grower, bearing in mind the menace of foreign competition in a commodity which for a considerable period has enjoyed practically a monopoly in overseas markets and which has no local consumption? What non-essential services and expenses can be and should be eliminated in order to attain this result?

The Government have endeavoured to deal with these three points by the establishment of the Clove Growers' Association.

There is no doubt that the operations of the Clove Growers' Association have steadied the market and brought about an improvement in prices at

a critical period, and eliminated a certain amount of speculation and a number of middlemen whose services were unnecessary. Its efforts have been aided by favourable circumstances. Local stockholders not anticipating two consecutive short crops unloaded on to the Association with the result that it is now in practical control by holding a preponderant proportion of the local stock, while its information indicates that there is no substantial accumulation of surplus stocks overseas. If the last crop had been a heavy one the Association would have required to have had at its disposal further funds to protect the market, and if more of the local stock had been kept by the outside dealers the position of the Association would have been vulnerable. Restriction in the amount of the Association's funds would therefore mean a risk to the funds already employed.

Although the Association was not granted a legal monopoly, the Government has publicly declared that the aims and objects of the Association would be to obtain a monopoly, and it has by its operations, favoured by circumstances, practically attained that position, and at present is able to control both buying and selling prices. Nevertheless its position may, by changes in circumstances in the future, become insecure, with risks to its control and of possible losses.

Its continued ability to control selling prices is dependent on the proportion it can secure of the 1936/7 crop. Whatever amount it may obtain it may have to release the whole or the major part of its present stocks dependent on the size of the new crop and the proportion which may pass into outside hands and the policy of the outside holders. Present estimates indicate that the short 1936/7 crop, plus stocks, might be barely sufficient, especially in certain grades, to meet the requirements of overseas markets, where in total there appears to be no serious diminution of demand.

If the whole of the stocks of the Association are sold in the next twelve months, although it will be able to realise a satisfactory profit thereon, the possibility of further competition against the Association would be reopened, and, even if unsuccessful, may cause unnecessary oscillation of prices.

While the debt question remains unsettled it is uncertain what proportion of future crops will go to outside dealers and exporters, notwithstanding the preferences in the terms offered by the Association, and opportunities will remain for the intervention of a number of otherwise unnecessary middlemen. These factors and the existing high rates of interest will have some bearing on the minimum economic price that can be fixed for payment to growers, which might have to be reduced to meet possible further foreign competition in the future.

The Government's policy in establishing the Clove Growers' Association and according it full financial support was sound as far as it went. No one without the guarantee of the Government could have provided the funds necessary to take off the market and carry the temporary surplus stocks and adjust supply to demand which the Clove Growers' Association with the financial support of the Government has so far been able to do.

Nevertheless, if it had not obtained control of the local floating stocks, the Association would not so fully dominate the situation as it does to-day, and a gradual accumulation of stocks against it by those who object strongly to its operations would weaken its position.

In my opinion the holding of only part of a crop will not give sufficient control to regulate and stabilise prices, and may be dangerous to part of the funds employed, and without adequate control losses might be incurred. A complete and continuous monopoly of supplies is necessary to assure to the Association full and effective control, with a minimum of risk to the funds employed by it, and therefore its present operations should be continued, but on a wider basis and with more extended powers.

The growers as a body are supporters of the Clove Growers' Association. They should, therefore, welcome an extension of the powers of the Association to help them, and especially on the lines recommended viz:

that all local buying of cloves should be centred in the Association on the same lines and with the same effects as if the Association were a Co-operative Society. On this basis the various prices for the different grades would be averaged for the benefit of all the growers.

The Association would be able to carry out its functions in accordance with the intentions of the Government on the lines of a Co-operative Society as a trustee for the whole of the growers, and exercise full and beneficial control over the market by holding surplus stocks so as to average them with those of a short season, at the same time stabilising prices to the growers and to overseas purchasers within reasonable limits. Local speculation, which is a menace to price stability, would be eliminated.

The consolidation of the position of the Clove Growers' Association would enable vexatious conditions, such as the export levy, the heavy export licence duty, the keeping by the exporters of registers of purchases and sales, to be abolished, and this should assist towards removing some of the complaints against the Association, which in a measure are not justified and to some extent arise from misunderstandings and also from the success which has so far attended its operations contrary to the expectations of its competitors and critics.

A stable price will enable growers to look to the future with greater confidence and to plan ahead as regards improvements and replanting, which they are unable to do while prices fluctuate widely and are subject to speculation whereby growers are only too certain of a low price in a bumper crop year and uncertain as to a much higher price in a short crop year. A steady price to the growers should result in an improvement in the capital value of their plantations which would be advantageous to their creditors.

These points are emphasised by the Public Trustee and Administrator-General, who in those capacities administers properties containing about 90,000 clove trees and as mortgagor is interested in a further 50,000 trees.

Reasonable stability of selling prices would encourage overseas buyers to make long-term forward contracts. This in turn would assist the Association in fixing seasonal prices to the growers and give greater security to the value of stocks carried, and afford Zanzibar cloves a better footing in overseas markets against possible competition from other countries and from alternative products.

The Association with control of the industry similar to that of a Co-operative Society would be much better placed for dealing with possible foreign competition than an unorganised body of exporters. As price stability may encourage production in other countries this point should not be lost sight of.

If, as is recommended, the Association bases its co-operative activities on the utilisation of the services of some of those middlemen already in touch with growers in regard to purchases and the services of exporters with connections in overseas markets as regards sales, a number of middlemen will have the opportunity of justifying their continued existence in the performance of essential services and only those who are unnecessary to the industry will be eliminated.

The employment of exporters who are also importers will have the further advantage of facilitating imports by the combination of exchange transactions which can thereby be effected.

It is to be hoped that with the powers of the Association clarified, exporters in the knowledge that their services will continue to be utilised will co-operate cordially with the Association, so that the repercussion from their widely-expressed complaints of possible uncertainties in overseas markets will come to an end.

The control of the Association would not be a complete or continuous monopoly, as the Government by retaining authority to grant buying licences to others would have power to stop abuses and to make such adjustments in the arrangements for buying cloves as they might consider necessary after further experience.

A settlement of the agricultural debt question carried out with the other recommendations made in this Report would have beneficial results. If the mortgage debts are gradually taken over where necessary by the Government at a comparatively low rate of interest, say 6%, and made repayable by a small annual sinking fund, the clove growers, with their financial burden alleviated by conciliatory debt settlements and a substantial reduction in interests rates and assured of a reasonable and steady price for their crops would become a solvent body of agriculturalists, owning plantations of an improved capital value and with surplus purchasing power that would improve their standard of living and bring more business to the Indian trader.

This would strengthen and broaden the economic position and provide the Protectorate with the desired basis of a satisfied agricultural and trading community.

I have the honour to be,

Sir,

Your obedient Servant,

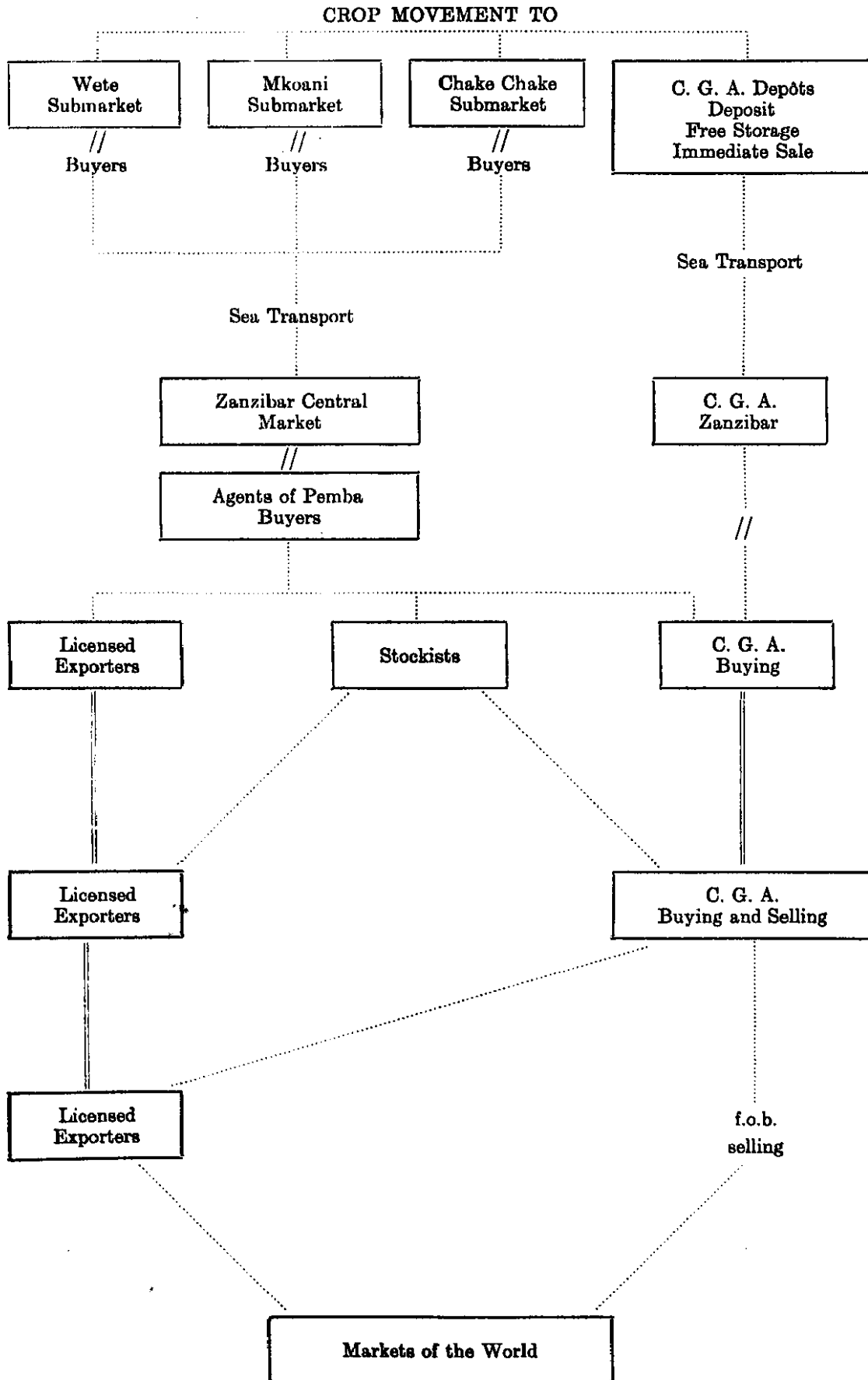
B. H. BINDER.

London, 15th August, 1936.

SCHEDULE "A"

FROM GROWERS TO WORLD'S MARKETS

PEMBA GROWERS

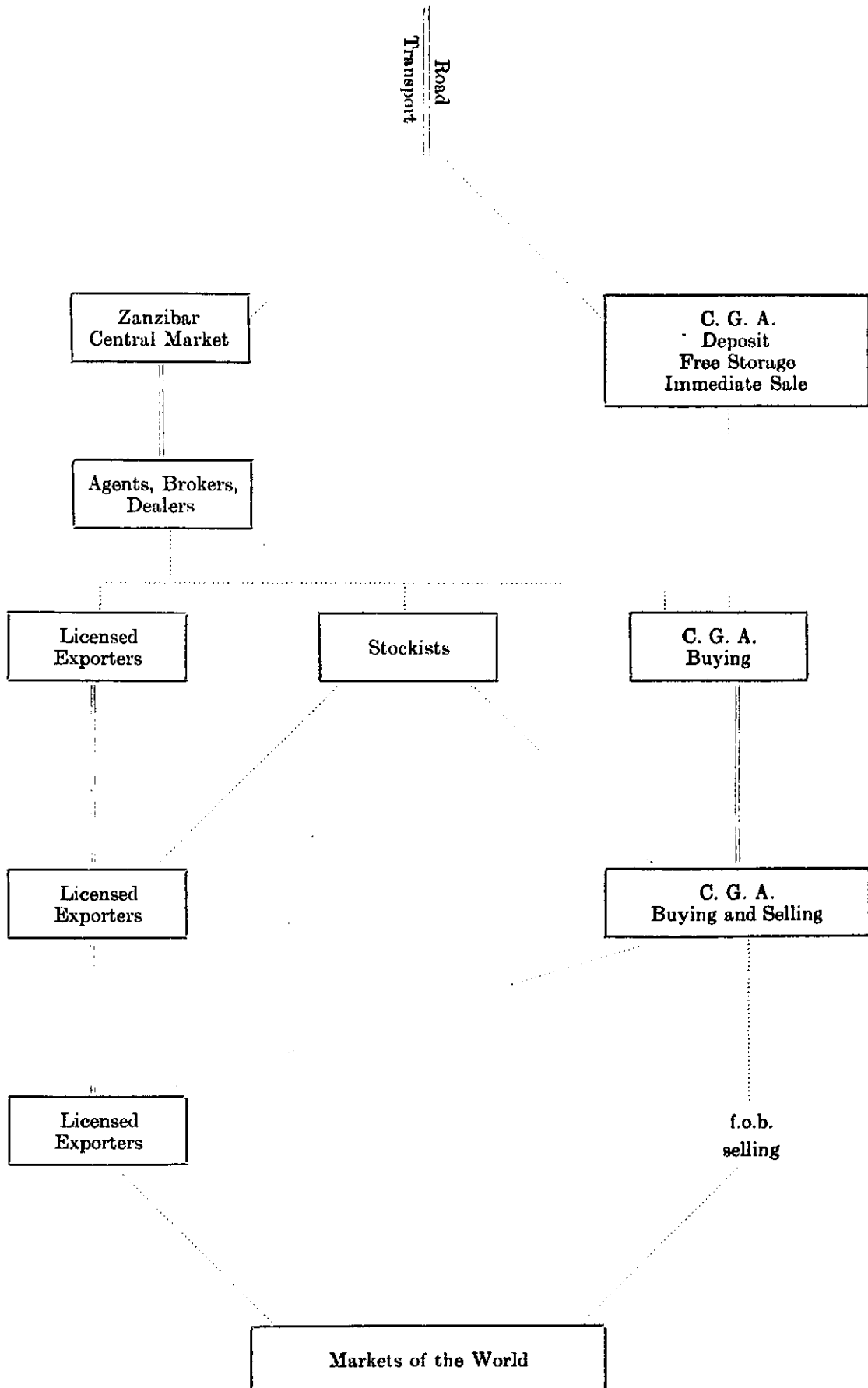


SCHEDULE "B"

FROM GROWERS TO WORLD'S MARKETS

ZANZIBAR GROWERS

CROP MOVEMENT TO





Report of the Commission appointed by  
the Secretary of State for the Colonies to  
consider and report on the Financial Position  
and Policy of the Zanzibar Government  
in Relation to its Economic Resources.

COMMISSIONER :

Sir ALAN PIM, K.C.I.E., C.S.I.

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# CONTENTS.

---

CHAPTER I.	PAGE
Preliminary review of the financial position ... ..	7
CHAPTER II.	
General considerations and terms and conditions of service ... ..	11
A. European Staff ... ..	11
B. Non-European Staff ... ..	17
CHAPTER III.	
Analysis of Departmental Expenditure.	
The Secretariat ... ..	21
Provincial Administration ... ..	23
Treasury and Customs ... ..	24
Audit ... ..	26
Port and Marine ... ..	26
Government Printing Press ... ..	28
Miscellaneous Services ... ..	29
Judicial ... ..	30
Legal ... ..	34
Administrator-General ... ..	34
Police ... ..	35
Prisons ... ..	38
Medical and Sanitation ... ..	38
Education ... ..	41
Public Works ... ..	47
Survey ... ..	52
Agriculture ... ..	52
Post Office ... ..	55
Electricity and Wireless ... ..	56
Pensions ... ..	58
CHAPTER IV.	
Readjustment of taxation and raising of additional revenue ... ..	61
(a) Clove duty determination and stabilisation ... ..	61
(b) Clove duty drawback ... ..	64
(c) Clove oil distillation scheme ... ..	66
(d) Sources of additional revenue, and summary of resulting financial position ... ..	66
CHAPTER V.	
Miscellaneous financial questions ... ..	72
(a) Method of investment of Surplus Balances ... ..	72
(b) Proposals relating to Surplus Balances ... ..	72
(c) Transfer of funds and inconvertible note issue ... ..	73
(d) Local Purchase of Stores ... ..	76
CHAPTER VI.	
Local Government ... ..	77
CHAPTER VII.	
Co-operation with the Mainland Territories ... ..	81

## CHAPTER VIII.

Proposals arising out of Mr. Strickland's report :—	PAGE
Clove Growers' Association ... ..	82
Land Tenure ... ..	87
Cadastral Survey and Registration of Titles ... ..	90

## CHAPTER IX.

Report of Committee on Clerical and Menial Services ... ..	93
--	----

## CHAPTER X.

The present financial position ... ..	94
---------------------------------------	----

## APPENDICES.

	PAGE
I. General Statement showing Actual Revenue and Expenditure 1922-1931 and estimated figures for 1932... ..	95
II. Expenditure on Personal Emoluments, excluding H.H. The Sultan, during the years 1922-1932 ... ..	96
III. Strength of European Staff ... ..	97
IV. Non-European Staff, Approved Establishment—Numerical Strength ... ..	98
V. Table showing the Annual Estimated Cost to the Protectorate of European Officers at various salary points ... ..	99
VI. Table showing the Annual Estimated Cost to the Protectorate of Asiatic Pensionable Officers of various grades ... ..	99
VII. Statistics of Pension Liabilities ... ..	100
VIII. Statement showing the proportion of expenditure incurred in respect of Zanzibar and Pemba Islands for the year 1930, by Departments maintaining Establishments in both Islands ... ..	101
IX. Comparative Statement of Revenue and Expenditure of Marine Service for the years 1925-1931 ... ..	102
X. The Total Accumulated Fund for the Widows' and Orphans' Pensions Scheme for European Officers ... ..	103
XI. Yield of Cloves Harvested and Total Exports of Cloves ... ..	104
XII. Value of Clove Exports and Duty Assumed or Estimated ... ..	105
XIII. Comparison of Budget Estimates of Clove Duty with Actual Receipts, 1913-1932 ... ..	106
XIV. Minor Additions to Income ... ..	107
XV. Statement of Investments on Account of Surplus Balances, 1922-1931 ... ..	108

To

THE RIGHT HONORABLE SIR PHILIP CUNLIFFE-LISTER, G.B.E., P.C., ETC.,  
 SECRETARY OF STATE FOR THE COLONIES,  
 DOWNING STREET.

SIR,

I arrived in Zanzibar on February 15th for the purpose of the financial enquiry entrusted to me. I there met Mr. G. F. Sayers whose services had been kindly lent by the Government of Tanganyika Territory for my assistance.

After a few days spent in becoming acquainted with the local conditions, and examining the memoranda prepared by the departments, we went to Pemba and spent a week examining the various aspects of the local administration and obtaining some knowledge of the methods of the clove industry. The rest of the time was spent at Zanzibar with occasional tours to enquire into special aspects of affairs. The administration of the island is almost wholly concentrated in the town of Zanzibar and the working of most departments can be best studied there.

Written memoranda were received from the Arab Association, the Indian National Association, the Chamber of Commerce, the Unofficial Members of the Legislative Council and two individual Unofficial Members of the Council. They were discussed with representatives of these bodies and with the gentlemen concerned, and I also had personal discussion with the heads of all departments and with various leading representatives of the legal, commercial and educational communities.

I would express my special indebtedness to His Highness the Sultan and to His Excellency the British Resident, Mr. R. S. D. Rankine, C.M.G., for the invaluable assistance which I received at every stage.

Heads of departments had not only devoted a great deal of time and labour to preparing full memoranda before my arrival but gave every possible assistance in collecting further information and in putting me into possession of all relevant facts. The help and the hospitality received were so general that it is impossible for me to acknowledge them adequately but I may perhaps make special mention of the officers of several departments of the Administration who assisted me during my tour and made laborious enquiries in connection with indebtedness, of the Treasurer whose help was invaluable at every stage, and of the three officers who carried out a valuable supplement to my inquiry by going into the connected questions of the clerical and menial staffs. Mr. C. A. Bartlett was most kind in assisting me with his wide knowledge of the conditions in Zanzibar.

To Mr. G. F. Sayers I am especially indebted and as the inquiry progressed I have more fully realised the great value of his assistance and of his advice.

I now submit my report.

I have, etc.

A. PIM.

23rd May, 1932.

## CHAPTER I.

## PRELIMINARY REVIEW OF THE FINANCIAL POSITION.

1. The letter from the Under-Secretary of State, Colonial Office, No. 24056/31 dated 16th September, 1931, states that the purpose of my visit to Zanzibar is the carrying out of an enquiry into the financial position and policy of the Government. The terms of reference are as follows :—

“ To consider and report on the financial position and policy of the Zanzibar Government in relation to its economic resources ; and in particular to advise as to the measures which might be taken to reduce expenditure on existing services without any material loss of administrative efficiency ; as to any adjustments which may be considered necessary or desirable in the existing basis of taxation ; and as to the possibility of raising additional revenue, especially with a view to meeting the cost of such additional services as may be deemed to be necessary or essential.”

In addition to these general terms of reference I have been asked to report on certain specific proposals put forward in the recent report by Mr. C. F. Strickland, C.I.E., on co-operation and the economic condition of the agriculturalists in Zanzibar ; more especially on the recommendations regarding a cadastral survey and the re-organization of the Clove Growers' Association.

2. For the purpose of carrying out these instructions I propose to commence by an analysis of the present financial position of the Territory in the light of recent financial history. This will be followed by an examination of the expenditure of the various services for the purpose of ascertaining the economies which may appear to be feasible without any material loss of administrative efficiency. A foundation will thus be laid for considering the adjustments which may appear to be necessary or desirable in the existing basis of taxation and the raising of such additional revenue as may be found to be required for meeting the cost of additional services. The special proposals arising out of Mr. Strickland's report will be dealt with in a supplementary chapter.

## ANALYSIS OF INCOME AND EXPENDITURE.

3. This analysis is based on the Budget Estimates for 1932 which have been subjected to severe pruning and may be taken as representing what are considered by Government to be the minimum requirements for the existing staff and services. Appendix I to the report summarizes the position as regards revenue and expenditure from 1922 to 1932, the figures for the last year being the Budget Estimates. The revenue shown under Customs is net revenue after deduction of refunds and drawbacks, and other necessary adjustments have been made in the figures for 1931 and 1932 so as to make them comparable with those of earlier years. The exceptional item of Rs. 1,50,000, on account of income from land sales should, however, be deducted from the revenue for 1932 if a true picture of the present position is to be arrived at and Rs. 13,600, on account of a grant from the Colonial Development Fund should be similarly deducted. Receipts from the sale of plantations should, in any case, not be applied to meeting the ordinary expenses of administration but should be included in the surplus balances as an addition to the reserves.

On the other hand, though the return from clove duties is certainly speculative, an income of Rs. 16,50,000 may fairly be taken as a normal figure under this head, and other small adjustments based on the figures from 1928 to 1930 will raise the estimated income to 61 lakhs or £457,000 (approx.) on a conservative basis.

4. The income falls under three general heads : (1) taxation proper including import duties, clove duties, licences, etc. and court fees totalling approximately 38½ lakhs ; (2) returns for services rendered ; and (3) income from Government property, jointly totalling 22½ lakhs. Of the 38½ lakhs derived from taxation 15½ lakhs is indirect taxation derived from a general import duty of 15% ad valorem paid by all consumers including the producers. 16½ lakhs represents clove duty paid by a special class of producers except in so far as the burden may be shared by other parties to the clove industry or can be shifted to consumers abroad.

5. On the expenditure side the most striking feature, apart from the very heavy expenditure on special and extraordinary Public Works, is the great increase in expenditure on personal emoluments from Rs. 23,81,930 in 1922 to Rs. 35,48,350 in 1931, an increase of 49%. The estimate for 1932 is even higher, Rs. 36,69,007. Owing to the lack of continuity of practice in regard to the classification

of expenditure the figures shown in Appendix I do not, however, accurately reflect the growth of such expenditure. During the years 1922 to 1931 a considerable number of men were engaged on a temporary basis and were charged to Public Works Extraordinary or recurrent maintenance votes for a few years being subsequently absorbed into the permanent establishment. The apparent increase in personal emoluments charges during the last few years is therefore greater than the actual increase. Similarly during the years 1922 to 1927 expenditure in respect of agricultural labour was debited to "other charges" votes but from 1928 onwards to personal emoluments. There are no separate records of actual expenditure on the personal emoluments of European and of non-European staff. The estimated expenditure under these heads is, however, ascertainable from the annual estimates and is given in Appendix II for the same period.

The estimated expenditure on European personal emoluments increased from Rs. 7,65,923 in 1922 to Rs. 12,00,333 in 1931, or by 57%. The estimate for 1932 is slightly less, Rs. 11,68,441.

The estimated expenditure on non-European personal emoluments increased during the same period from Rs. 17,97,291 to Rs. 25,83,290 or 44%. For 1932 it is Rs. 25,00,566. The actual increase is, however, considerably less if allowance is made for the change in the classification of agricultural labour, though this is partly counter-balanced by the expenditure on the non-European staff of the Bububu Railway.

Appendices III and IV show the strength of the sanctioned European and non-European staffs at various stages from 1914 to 1932. The actual European staff appears to number 109. The menial and inferior non-European staff does not include policemen and customs watchmen. It has to be remembered that the heading "Personal Emoluments" does not cover the total expenditure of the Protectorate on European and Asiatic officers, as the "hidden emoluments" have to be allowed for, including more especially staff quarters, passages and pensions. In the case of European officers these have been calculated to be equivalent to an addition of 43% to the salary of an officer drawing a salary of £1,600, rising to 57% in the case of an officer drawing £400. In the case of Asiatic officers the corresponding percentage addition varies from 35% in the case of an officer drawing Rs. 450 per month to 39% for an officer drawing Rs. 150 per month. The detailed calculations are given in Appendices V and VI. Even in the case of Africans recruited from Nyasaland who form about 25% of the Police, the additional expenditure is considerable.

6. The position as so far ascertained is, therefore, that there is an estimated income of 61 lakhs to cover expenditure estimated for the year 1931 at Rs. 61,65,000. There are, however, other considerations which must be taken into account and which will put the position in a different light. No substantial increase in income can be anticipated with confidence but a considerable increase in expenditure is unavoidable under several heads.

7. In the first place the probable total liability on account of staff increments for the European and non-European staff for the next ten years is estimated at a cumulative charge of approximately Rs. 34,000 per annum. This theoretical liability is, however, likely to be offset by economies resulting from staff changes including retirements, promotions, invalidings. On the whole, therefore, the future liability on account of increments may be discounted if full allowance is made for contingent pension liabilities.

8. The crux of the problem of future liabilities lies in the question of pensions. Appendix VII gives the statistical history of the pension liabilities already incurred by Government.

It may be assumed that there will be no material addition to the Civil List but it is clear that commitments under Pensions and Gratuities will be subject to considerable expansion owing both to the increases in the numbers and emoluments of the pensionable staff and to the increases which have been sanctioned at various times in the benefits to the pensionable staff and the gratuities to the non-pensionable. The new Widows' and Orphans' Pensions scheme, though profitable for the time being, will also result in increased expenditure in the future. It is difficult to arrive at an approximate figure to cover pension commitments during the next few years but on certain assumptions, which appear to be justifiable, the Treasurer estimates that the liabilities on this account will increase as follows during the next five years:—

1933.	1934.	1935.	1936.	1937.
Rs. (lakhs).	Rs. (lakhs)	Rs. (lakhs)	Rs. (lakhs)	Rs. (lakhs)
1.15	1.35	1.54	1.75	1.94

The maximum liability by 1937 will be 1.94 lakhs in addition to the present commitment of Rs. 3.63 lakhs making a total of Rs. 5.57 lakhs. To this has to be added the aggregate sum of Rs. 2,76,000 in respect of commutation payments involving an annual average liability of Rs. 55,000.

9. No reliable estimate can be framed of the increased liabilities in respect of gratuity payments and those under the Widows' and Orphans' Pensions Scheme. The expenditure in 1937 may be roughly estimated at twice as much as the average expenditure for 1928 to 1930 in respect of gratuities and three times as much in respect of pension benefits. The additional liabilities will thus be as follows :—

	1933.	1934.	1935.	1936.	1937.
	Rs.	Rs.	Rs.	Rs.	Rs.
Gratuities... ..	7,000**	14,000	21,000	28,000	35,000
Widows' Pensions	2,400	4,800	7,200	9,600	12,000

10. Further under certain heads of Public Works expenditure the expenditure provided in the 1932 Estimates is clearly not adequate as a normal provision. In particular the average annual recurrent charges on account of the upkeep of roads, buildings, lighting, etc., can hardly be put at less than :—

Buildings ... ..	Rs. 75,000
Roads ... ..	„ 2,20,000*
Drainage ... ..	„ 9,500
Water Supply ... ..	„ 10,000
Lighting ... ..	„ 50,000
Miscellaneous ... ..	„ 50,500
<b>Total ... ..</b>	<b>Rs. 4,15,000</b>

(\* Note.—This includes a small provision for road maintenance in addition to the expenditure required under the eight year programme drawn up by the Director of Public Works.)

The actual provision is Rs. 3,22,000. An addition of approximately Rs. 93,000 is, therefore, necessary on this account.

11. Similarly, though "Special" expenditure is more under control than expenditure on upkeep, an examination of the actual items of expenditure suggests that at least Rs. 50,000 is likely to be required annually in addition to Rs. 1,92,000 voted.

12. On the other hand, on the closing down of the Survey Department at the end of the year there will be a saving of Rs. 50,000 unless a new programme is initiated.

13. Leaving out of account for the present any increase of expenditure on account of the new programmes of educational and medical expansion but allowing a provision of Rs. 1 lakh for "Public Works Extraordinary" instead of Rs. 1,48,000, provided in the Estimates, the general position as regards the finance of the Protectorate during the next five years may then be set out as follows :—

	1933.	1934.	1935.	1936.	1937.
	Rs. (lakhs)	Rs. (lakhs)	Rs. (lakhs)	Rs. (lakhs)	Rs. (lakhs)
Revenue ... ..	61.00	61.00	61.00	61.00	61.00
Expenditure ... ..	61.63	61.63	61.63	61.63	61.63
Plus ... ..	2.26	2.56	2.84	3.14	3.43
<b>Total Expenditure</b>	<b>63.89</b>	<b>64.19</b>	<b>64.47</b>	<b>64.77</b>	<b>65.06</b>
<b>Deficit ... ..</b>	<b>2.89</b>	<b>3.19</b>	<b>3.47</b>	<b>3.77</b>	<b>4.06</b>

14. Broadly speaking, therefore, it will not be practicable to undertake any scheme for the extension of the existing services, or the initiation of new services, unless it is possible to arrive at a position in which the economies in recurring expenditure, together with increased recurring income, jointly exceed four lakhs and six thousand rupees. This will obviously not be easy.

15. A subsidiary question which deserves consideration in connection with any scheme for expansion is the distribution of expenditure between the two islands of Zanzibar and Pemba.

A feature of the situation which is immediately evident is the concentration of departmental activities in the town of Zanzibar, and this applies more especially to the Medical, Education and Police Departments.

Appendix VIII shows for the year 1930 the proportion of expenditure incurred in respect of the two islands by departments maintaining establishments in both islands.

Taking the Public Works expenditure from 1924 to 1931, Rs. 24,27,102 was spent on road construction in Pemba as compared with Rs. 19,16,138 on roads in Zanzibar, but on "Other Works" Zanzibar received Rs. 38,27,825 as compared with Rs. 10,43,339 in Pemba apart from Rs. 33,14,195 on harbour works.

The population of Zanzibar is 137,741 as compared with 97,687 for Pemba and the areas are respectively 640 and 380 square miles. On the other hand Pemba is the main seat of the clove growing industry on which the prosperity of the whole Protectorate depends. Even allowing for the inferior quality of Pemba cloves, about 65% of clove shipments are from Pemba so that its share of clove duty payments for the three years 1928-1930 averaged about Rs. 10.95 lakhs on the assumption that clove duty is paid by the producer. Similarly, according to the rough guide afforded by the statistics of coastwise trade, Pemba's contribution to the receipt from import duties may be placed at approximately Rs. 4.50 lakhs per annum, raising the Pemba contribution of Customs revenue to about 42.7% of the total revenue of Rs. 36.19 lakhs.

As Zanzibar is not only the headquarters but the only port of importance, considerable concentration of expenditure on it must be expected but, even allowing for this, 25.9% seems a low proportion of departmental expenditure for Pemba more especially when the cost of the administration in Pemba exceeds that in Zanzibar, and the percentage from the departments other than the Administration and the Courts averages only 22%. On the other hand, as explained in paragraph 80, Pemba receives an indirect annual contribution to its clove industry through the Protectorate Marine Service of not much less than a lakh of rupees.

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## CHAPTER II.

## GENERAL CONSIDERATIONS AND TERMS AND CONDITIONS OF SERVICE.

16. Before entering on the departmental estimates there are certain general considerations to which it is necessary to refer. In the first place Zanzibar is a small unit in a group of larger units with which it is closely linked as regards the system of administration. This naturally tends to increase the expenditure of the smaller unit, but this tendency could have been controlled if the fundamental facts had been sufficiently kept in mind that the two islands have a joint area of only 1,020 square miles and a total population of only 235,000, of which the majority live on a very low standard and are unable to bear any substantial taxation. These fundamental facts should have suggested more caution in setting up the same superior administrative organization, with the same titles, for the relatively small departments in Zanzibar as for the much larger organisations on the mainland. The very identity of titles inevitably involves a comparison of standards of pay, and, in practice, it also tends to involve a view of the duties of the higher posts as being administrative and secretarial, more or less divorced from actual practical work. A Director tends to carry with him an Assistant Director, although there may not in reality be sufficient work for two such officers, and the second post is practically created for the purpose of providing an officer to act when the superior officer is on leave, so avoiding departmental inconvenience. The circumstances are not the same as in the mainland territories where the great distances to be travelled on tours of inspection involve prolonged absences from headquarters, and where the frequent sessions of the Legislative Council take heads of departments from their normal work, sometimes for weeks at a time. Zanzibar cannot afford a European staff on this scale to meet such infrequent difficulties, and it is only the fatal easiness with which funds have come in from the clove industry which has tempted it into these easy and seductive courses for which good reasons can usually be put forward by the departments concerned. These reasons could only be outweighed by the proper appreciation of the financial position which has sometimes been lacking, or by the adoption of a definite policy of development through cheaper agencies. Such a policy has never been formulated, or, at any rate, never put into practice. These considerations would reinforce the general principle of economy in the administration so far as this is compatible with efficiency.

The tendency to increase overhead charges on staff, and the equally costly tendency to make all grades of the staff permanent and pensionable, have been facilitated by the failure to keep the accounts of semi-commercial departments on a proper commercial basis resulting in what amounts to the payment of concealed subsidies. Similar considerations apply to other branches of work which should be practically self supporting, such as those in connection with the services of a municipal type for the town of Zanzibar.

The extent of the expansion in the European staff of the various departments is shown in Appendix III and the recommendations which I propose to make in this report will involve an immediate reduction in the establishment of 16 officers, with a consequent direct saving on salaries amounting to Rs. 1,70,000, apart from indirect savings on supplementary emoluments, and at same time in the future, a further reduction of five officers involving a further saving of about Rs. 50,000.

This appears to be the maximum reduction possible without loss of efficiency, unless some existing service is to be discontinued, a course for which there is at present no sufficient justification. The connected question of the reductions possible in the large clerical and menial staffs has been enquired into by a strong local Committee whose conclusions are dealt with in Chapter IX of this report.

## TERMS AND CONDITIONS OF SERVICE.

## A—EUROPEAN STAFF.

17. The first question for consideration is that of the general scales of pay and for its elucidation it is necessary to deal briefly with the recent history of currency changes.

Before the war the salaries of European Officers throughout East Africa were fixed in sterling and were paid at Rs. 15 to the pound. In 1918 a bonus was sanctioned to compensate for the rise in cost of living; this continued until the general revision of salaries in the East African dependencies which took place in 1920 as a result of the recommendations of the Lascelles Commission.

Prior, however, to the introduction of these revised salaries, the rupee, the exchange value of which had previously remained more or less constant at Sh. 1/4d., became subject to violent fluctuations, rising to as much as Shs. 2/10d. at one time. Owing to these unsettling exchange movements the mainland Governments decided to abandon the rupee currency and to adopt an East African currency based, firstly, on a florin and, latterly, on a shilling unit. But as the purchasing power of the florin, particularly as regards local produce and native wages, was at first no greater than that of

the rupee, officials of the mainland, whose revised salaries were paid of course in sterling, were granted as a temporary measure a 50% compensatory allowance which was to be subject to re-consideration after a stated period in the light of prices obtaining locally.

The salaries of Zanzibar officials continued to be paid in rupee currency at the rate of Rs. 15 to the pound which, so long as the rupee was worth Shs. 2/-, placed them on equal terms with their brother officers on the mainland, especially so far as remittances to England were concerned. As a result, however, of the rapid fall in the value of the rupee, Zanzibar officials were permitted in 1921 to remit half their salary home at the rate of Rs. 10 to the pound in order to meet family commitments, a rate which was subsequently reduced to Rs. 12½ in sympathy with the reduction of the local allowance on the mainland. The reduction of the mainland allowance appears to have been decided on a somewhat arbitrary basis without any particular reference to the effect of the new currency on the cost of living, and in 1925, when the total withdrawal of the allowance appeared imminent, the East African Governors jointly represented that many officers would be placed in a serious predicament if that were done and deemed the moment opportune to consider under what conditions the remaining portion of the local allowance could be incorporated in salaries. The next step, therefore, so far as Zanzibar was concerned, was a request from the Secretary of State that the proposals of the conference of East African Governors held in November, 1925, to discuss this matter should be obtained with a view to the application of a revised salary scheme to the officials of the Protectorate. After consideration of those proposals recommendations for the revision of salaries in Zanzibar were made by the British Resident in February, 1926, and it is on those recommendations, modified in matters of detail, that the emoluments now enjoyed by the European staff are based. The rates of pay may be said, roughly, to correspond to the rates approved in 1920, plus the local currency allowance of 20% referred to above and, so far as the graded ranks are concerned, are in close conformity with those prevailing on the mainland. It should be added, however, that with the stabilization of the rupee at Sh. 1/6d., the revised salaries were paid at the rate of Rs. 13½ to the pound.

I do not propose to enter into the general question of the so called time scale of salaries which governs the emoluments of most Administrative officers. It appears to have anomalous and, in various respects, unsatisfactory results, but as its sphere extends much beyond East Africa and its perpetuation is envisaged in the scheme for a unified Colonial Administrative Service its consideration is, therefore, beyond the scope of a local enquiry.

18. According to the memoranda submitted by a number of unofficial bodies, the salaries which the European staff now enjoy are too high, although it is fair to add that, when I interviewed representatives of those bodies, they explained that what they chiefly had in mind was a reduction in establishments rather than in emoluments, and that they had no objection to adequate salaries being paid to attract the right type of candidate, so long as good men were, in fact, obtained. The suggestions in the written memoranda were (i) that the salaries of heads of departments were capable of reduction, considering that the responsibilities were less than those of the mainland posts, and (ii) that the levy on official salaries recently imposed by the Governments of Kenya and Tanganyika should be applied in Zanzibar.

19. As regards the suggestion first mentioned, it must be remembered that Sir Claud Hollis, when recommending appropriate salaries for heads of departments in Zanzibar, took into account the degree of responsibility attaching to senior posts here in comparison with those of other territories, as will be seen from the following table :—

Post.	SALARY PAID IN			
	ZANZIBAR.	KENYA.	TANGANYIKA.	UGANDA
	£	£	£	£
Chief Justice ... ..	1,600	2,400	2,200	1,800
Chief Secretary ... ..	1,600	2,200	2,000	1,800
Attorney-General ... ..	1,400	1,800	1,650	1,400
Treasurer ... ..	1,400*	1,450	1,450	1,400
Director of Medical and Sanitary Services...	1,400	1,500	1,500	1,500
Director of Education ... ..	1,200	1,500	1,350	1,350
Director of Agriculture ... ..	1,230 to 1,350	1,500	1,350	1,350
Director of Public Works ... ..	1,200	1,200	1,350	1,350
Provincial Commissioner ... ..	1,200	{ 1,350 1,200	{ 1,350 1,200	{ 1,350 1,200
Administrator-General ... ..	1,000	1,050	1,050	600 to 840
Commandant of Police ... ..	1,100	1,350	1,200	1,200

\* Now to be combined with the post of Comptroller of Customs at a reduced salary of £1,300.

20. Whether the rates in Zanzibar are too high, considering the duties attached to the posts, is a matter of opinion. The question may be regarded from different points of view and differs to some extent from one post to another.

Tried by the test of administrative responsibilities and the strength of the staffs controlled by them heads of departments in Zanzibar have a comparatively light task as compared with the corresponding posts on the mainland. Even by this test, however, the responsibilities of the Administrator-General which include those of Land Officer are quite comparable with those of his brother officers in Kenya and Tanganyika. Similarly the Treasurer is also both Comptroller of Customs and requires to be an expert in the complicated finance of the Clove Industry, while he receives no allowance as Currency Officer though both of the mainland Treasurers receive this allowance and the predecessor of the present Treasurer—who was not also Comptroller—received an allowance of £50 on this account. Applying the further test of the actual amount of work involved some posts, but more especially that of the Attorney-General, are probably as heavy as on the mainland, because he has not the same professional assistance and has to take the responsibility for the whole of the work. Again the difference between the rates of pay of the heads of departments in Zanzibar and those of ordinary executive officers, who must necessarily receive the same pay as on the mainland, is already not very great and cannot fairly be reduced disproportionately.

21. Apart from any comparison with the mainland there is the further question whether considering the seniority of the officers concerned, their status, and the cost of living, their emoluments are more than adequate. I have not sufficient experience of the cost of living in Zanzibar to express any definite opinion on this point. The standard of living is not easy to alter as local prices and wages have not fallen to the extent which they have at home. Generally speaking, the pay, so far as I have been able to gather, is generous for a bachelor but allows little margin for married officers, more especially for those with children who must, perforce, be educated at home. The majority of heads of departments fall within the latter category and it is not unreasonable that deserving officers of middle age should be in a position to provide their children with a good education. Married officers with families must, in most cases, support two establishments for a part of their tour.

22. Making full allowance for these considerations, and for the necessity of attaching salaries to departmental directorships sufficient to make them attractive to suitable candidates, I consider that the solution of the problem for a place like Zanzibar lies in the stage of an officer's career when he should be considered for these posts. Departmental Directorships in the smaller administrations should not be reserved for elderly men who will look on these as places from which they will retire on pension—an attitude of mind which hardly makes for energetic and resourceful administration—, but on the other hand they should not be given to men with little or no administrative experience. The latter consideration is specially necessary in Zanzibar, because the character of the mixed community in the town, and the close proximity in which all elements reside, give more opportunity for an officer who is tactless or otherwise personally unsuitable to do serious harm than would be the case in many places. The importance of the Protectorate also cannot be gauged merely by its area and population, regardless of its commerce and wide influence as a centre of Muslim influence. Such posts should be reserved for younger officers of promise and ability, of the status of a Deputy Director on the mainland, who will regard them as an opportunity for earning by good work promotion to higher posts elsewhere. From this point of view the emoluments of most of the principal posts are capable of reduction when vacancies occur, the maximum reduction being probably £100 with proportionate reductions in other cases. The Treasurer cum Comptroller and the Administrator-General are exceptions and in the case of the former I consider that his salary should be on the same scale as that of the Attorney-General. As regards the post of Provincial Commissioner if the recommendation which I have made elsewhere is accepted for the retention of one only of these posts with special work and special responsibilities the present salary is suitable.

23. In making this proposal I have assumed that it is possible to vary the rate of pay of all of these posts. Their relative status should not be affected by any changes made. I understand however that this may not be the case as regards the salaries of the Director of Medical and Sanitary Services and Director of Agriculture both of which are fixed as parts of a combined scheme applying to a large number of colonies. If this is so the question becomes more complicated but should nevertheless be capable of solution. The time when vacancies will permit of reductions being made is uncertain and the consideration alluded to in this section may cause some delay. I have therefore not taken any definite figure as representing economies attainable in this direction. They would be in the neighbourhood of £700.

24. To deal now with the second suggestion made by certain unofficial bodies, namely the application to Zanzibar of the mainland levy on salaries. The sole reason advanced by the Governments of Kenya and Tanganyika for that measure, so far as I am aware, is dire necessity dictated

by financial depression. It does not appear to have been suggested that existing salaries are too high or that any considerable decrease in the cost of living has taken place, but civil servants in those territories have been reminded that unofficial incomes have suffered and have been called upon to share in the sacrifices which others have had to make. It has been stressed that the levy is of a temporary nature and will be repealed when the position improves. The Government of Uganda, it may be noted, while taking similar legislative powers, has not, at the time of writing, applied the Tax on Official Salaries Ordinance, since the finances of that Protectorate are not embarrassed to the extent of its neighbours. It cannot be said that the reasons advanced by the Government of Kenya and Tanganyika have as yet any similar force in Zanzibar which remains relatively prosperous, and so long as those reasons are the only ones advanced I can see little justification for applying the levy to Zanzibar unless there is either a further deterioration in the financial position or other circumstances arise. These circumstances may be either a permanent reduction in mainland salaries by the perpetuation of the present salary levy or through some other means, or an adjustment of local taxation here with a view to the more equitable distribution of the burden among all classes of the community.

As regards the first contingency, I am not in a position to express any opinion, but it seems at any rate possible that if the finances of Kenya and Tanganyika remain at their present low ebb for any length of time and if the cost of living in East Africa falls to any extent, some means will be found of making permanent the contribution which public servants in those territories have been making to their exchequers since the beginning of 1932. If this eventuality materialises it is doubtful if Zanzibar could hold aloof, even though its prosperity was unimpaired, for the reason that there is a common source of recruitment for the East African service and, to all intents and purposes, the service is a unified one governed by one set of conditions. Difficulties would certainly arise, for example, in the East African Medical Service, the members of which are liable to transfer from one dependency to another, if there were any great divergence amongst the East African groups in terms and conditions of service. That the officials of Zanzibar should suffer owing to the misfortunes of its more important neighbours is somewhat hard, but it must be remembered that Zanzibar alone could not have hoped to obtain improved conditions for its servants by independent action and that for the revisions of salaries which took place in 1920 and 1926, they were primarily indebted to the initiative of the mainland Governments. The second set of circumstances which, in my opinion, would justify a salary levy, is the imposition of taxation on a class of the community which, hitherto, has made but a scanty contribution to the public revenues. I am proposing, in another section of this report, an adjustment of taxation by the imposition of comprehensive trade licences on the commercial community and if these recommendations are accepted I feel that Government servants should properly be asked to bear their share.

25. Apart from salaries, criticism was directed by all unofficial bodies against the terms of service in such matters as leave, passages, and the various allowances. It is clear, however, that so long as Zanzibar recruits from the same source as its neighbours, the general conditions which it offers to its candidates must approximate to those which officials of the mainland territories enjoy, and that any important modification of those conditions must be a matter for mutual agreement and joint decision after discussion by the Governments concerned. Any observations which I may offer, therefore, on the suggestions put forward are made on this understanding except where I have stated to the contrary.

26. *Leave*.—It was contended that the tour of service was too short and should be increased in order to reduce the large amount spent annually on passages as well as on the staff required for reliefs. The present tour is from 20 to 30 months, but, in practice, a standard of 24 months has been laid down, although it is at times necessary to depart from it for reasons of health or departmental convenience. The tour of service is the same in the mainland territories, viz., 20 to 30 months, but recently, as a measure of economy, the Government of Tanganyika has required all its officers to complete 30 months, while the Government of Kenya has, I believe, cancelled all leave from July to December and prescribed a three years' tour. So far as commercial houses are concerned, I understand that most employees complete 3 years residence before going on leave and that the Universities' Mission to Central Africa adopt a similar standard, though the leading firms have, of late, reduced the length of tour from 3 years to 30 months in the case of their more senior officials. Other evidence was tendered to me to the same effect, though there were, of course, exceptions, and cases were brought to my notice of persons who had been resident here for many years without a change and had maintained their health and energy. The general view appears to be that young men can reside in Zanzibar without detriment to their health for three years, but that men of 35 or 40 and over are less resistant to the climatic disadvantages and, as the years go on, are more affected by the want of variety and limited interests which tend to cause mental depression in small communities, more especially under tropical conditions. It is, in fact, a mental rather than a physical disability which sets in after long

residence, loss of memory, lack of concentration, and a feeling of staleness being the defects of which there is most general complaint when the tour is unduly prolonged. The Director of Medical and Sanitary Services is somewhat opposed to the introduction of a hard and fast rule prescribing a tour of 30 months or over, as he feels that each case should be judged in the light of individual circumstances. He points out that housing has a considerable bearing on the question, as an officer with comfortable and airy quarters on the sea front would, physically, be better equipped for a long tour than one housed in the hotter and noisier parts of the town: that an officer whose work requires overtime is more likely to wear out than one whose duties are lighter: that those without home ties are less affected by a long tour than those with family responsibilities. In short, the question is largely psychological and each case should be judged on its merits, special consideration being given to nursing sisters for whom a reasonably short tour is essential. I recognise that there must be elasticity in dealing with leave applications but, on the whole, I am inclined to think that, so long as this is observed and exceptions are made on the certificate of a medical board the present tour of 24 months can safely be extended to 30 without loss of efficiency, and that officers in their first and second tours of service might well be asked to serve not less than 3 years before qualifying for leave. This change could be enforced without reference to the mainland Governments with whose present general policy in this matter it, indeed, coincides.

27. With the question of the length of tour is connected that of local leave or, rather, the grant of expenses towards the cost of a local holiday. The view expressed by unofficial representatives was that this concession was needlessly extravagant and should be withdrawn. At present, subject to the exigencies of the service, officers are entitled to take 14 days local leave a year, which may be accumulated to 28 days in any one tour of service. They may receive up to £30, if accompanied by their wives and, otherwise, £15, towards the cost of their travelling expenses. The local leave regulations in force in Zanzibar are more or less similar to those approved for the mainland territories which have, however, been forced, as a measure of economy, to restrict the concession to the grant of free travel over their own railways, which is merely a book transaction between the Government and the Railways and entails no actual disbursement of public funds. The position of officials in Zanzibar differs from that of their mainland brothers in that there is no place in the Protectorate comparable to the highlands of the mainland, where a complete change of climate can be enjoyed, and they must, if such a change is required, spend their holiday in Kenya or Tanganyika over whose railways they enjoy no concessions. Moreover, on the mainland an officer who becomes run down, after a spell on the coast, is usually transferred to a higher altitude, while others, again, in the course of their duties, make periodical inspections up country. There is no such climatic relief available in Zanzibar, and if the sole opportunity which now exists of obtaining a change were withdrawn, there would probably be an increase in the number of officials ordered to take local sick leave. The amount involved by a continuation of the concession is not great, possibly £400 per annum, and provided that the tour of service is extended to 30 months, I think that it is inadvisable, in the interests of health and efficiency, to restrict it.

28. *Passages.*—The cost of passages on leave is a heavy burden on the Protectorate, and the amount provided for this liability in the budget for 1932 reaches the sum of £14,580. This figure includes, however, the cost of the leave passages of the Asiatic staff and of Africans recruited from Nyasaland, Tanganyika, etc., which account, roughly, for between £6,000—£7,000 of the total. An extension of the tour of service from 24 to 30 months will make for considerable economy in this direction, as it will enable the cost of two return passages to be saved for every European officer in the course of his whole service, apart from the saving on family passage assistance. Approximately about £14 per annum per head of the European staff will be saved, that is, an average total, roughly of £1,230 annually with the establishment when reduced to the dimensions which I shall recommend.

29. Savings might also be effected by raising the salary limit which entitles an official to a first-class passage, as, in my opinion, no hardship would be caused by restricting the grant of first-class privileges to officers with salaries of £840 and over. Alternatively, a lump sum grant of something under the cost of a first-class passage might be given to all officers on the understanding that they would be allowed to make their own passage arrangements. In addition to effecting economy, this arrangement would result in the abolition of the correspondence and clerical work involved in the booking of and payment for passages and would, possibly be acceptable to the staff, since it would tend to create competition for passenger traffic among the various shipping lines and to the provision of better amenities or to the eventual reduction of fares. But these questions concern the whole of the East African territories and are not matters in which Zanzibar could take independent action. The first proposal could give an estimated saving of £900 per annum. The second should save about £600 on European passages. Similar savings could only be obtained in the case of Asiatic officers by requiring them to take deck passages.

30. There was one unofficial body which recommended the discontinuation of the grant of family passage allowance. Assistance towards the cost of family passages is general throughout East Africa and is a condition of service common, I believe, to the West African and Eastern services. It has been conceded for very good reasons and no argument, except economy, was advanced against it. If any modification of the privilege is to be considered it should be by requiring junior officers to serve one or two tours before becoming eligible for it.

31. *Travelling Allowances.*—The amount provided in the Estimates in 1932 to cover the cost of travelling for all members of the staff, whether European or non-European is £1,500. The rates seem reasonable and though travelling allowances have been suspended on the mainland as a temporary measure of economy, I do not consider that that course is necessary in Zanzibar. So far as the European staff is concerned, the allowance is for the most part paid to senior officers inspecting Pemba and staying on the Government steamers in the course of their visit. The rates for messing on the steamers are not negligible and, but for the allowance, an officer would be substantially out of pocket. I consider, however, that the old concession whereby servants of officials receive six annas a day when accompanying their masters on tour might be abolished. The privilege has been abandoned on the mainland and is unlikely to be revived even when travelling allowances are restored there.

32. *Acting Allowances.*—Provision of £1,360 is made in 1932 for these allowances for the European and non-European staff. Representations were made to me by more than one unofficial body that the grant of acting allowance was, extravagant and, in some cases, had been abused. At present it is payable, without question as a rule, to any officer qualifying for it, although the regulations provide that the necessity for any particular acting appointment should be decided by the Resident. Thus, if the head of a department goes on leave, not only is an acting allowance payable to the deputy acting in his place, but it may also be paid to the officer acting for the deputy and so on. Moreover, cases were quoted to me in which the allowance was paid to an officer although he was admittedly not carrying out the duties of the higher post, since, for departmental reasons, it was convenient that he should not be taken away from his substantive work. On the mainland, where the same regulations prevail, the grant of acting allowance has, as a temporary measure of economy, been restricted to officers acting as heads of departments, and I would suggest a similar restriction here, but with power to the Resident to approve special cases in which the acting appointment involves real additional responsibility, as, for example, an officer acting for the Resident Surgical Officer. But exceptions to the general rule should be approved very sparingly.

33. *Language Bonus.*—A bonus of £50 is granted to Europeans who pass the Higher Standard Swahili Examination or who qualify as efficient interpreters in Arabic and Gujerati. In my opinion officers of the Provincial Administration, Education and Police Departments, whose duties require a sound knowledge of the language, should be expected to attain the standard desired without special remuneration even though special study may involve slight expenditure, and I recommend that the bonus should no longer be paid except to those who, with the prior sanction of Government, study for and pass an examination in Arabic and Gujerati. The allowances are estimated to cost £150 in 1932.

34. *Courses of Instruction.*—It appears that considerable extensions of leave are granted to Medical Officers in order to enable them to take special courses of instruction while at home, and the Director of Medical and Sanitary Services complained that, owing to these lengthy and frequent absences, it was necessary to make extensive provision for reliefs. I am aware that the conditions of service for the East African Medical Service contemplate the grant of these facilities, which, I am informed, have been temporarily suspended by the Governments of Kenya and Tanganyika except where courses of instruction are compulsory. Courses are obligatory before an efficiency bar can be passed, but discretion might well be given to the Director of Medical and Sanitary Services, as has been given in Tanganyika, to exempt Medical Officers from this necessity if he is fully satisfied that they are qualified to pass the efficiency bar.

35. *Transport Allowances.*—Provision for these allowances amounts to £2,366 in 1932. The scale of allowances was recently revised and the rates are now 5.4d. a mile for cars costing £150 and over, 3.6d. for "baby" cars, viz. costing under £150, with lesser rates for motor cycles. Special rates are in force for Pemba, i.e., 6.75d. a mile for the larger class of car and 4.5d. for the "baby" class. The rates appear to me to be on the generous side, compared with those prevailing in other parts of Africa, in view of the excellence of the roads, the absence of hills and the low cost of petrol, low, that is, in comparison with the cost of motor spirit in up-country districts on the mainland. But I am assured that the rates were recommended after a most exhaustive enquiry by a Committee which sat at the end of 1929 and which included a prominent European non-official resident, and are considered fair and reasonable. The only observations I have to make under this heading are as follows:—

- (a) The special rate for Pemba, which is defended on the ground that the roads in that island are, or were, worse than in Zanzibar, should be abolished. It is true that a stretch of a few miles in the southern end of Pemba requires repair and that there are one or two hills on

- which it is necessary to change gear, whilst in the early days of road construction motor cars were subjected to rough usage at times, but the last consideration no longer holds good, and as the roads there are of a very high standard the special allowance is not warranted.
- (b) A definite schedule should be drawn up of the officers entitled to use the different types of car, and those only entitled to motor cycle allowance. Heads of departments are already empowered to restrict the grant of allowance to such rate as they may consider appropriate, but, nevertheless, cases came under my observation in which the maximum car allowance was paid to junior officers when a small car or motor cycle allowance would have sufficed.
  - (c) The grant of an advance for the purchase of cars should be restricted to officers who require them for official journeys as is done in other territories, and there is no justification for the grant of advances free of interest (which tie up Government funds) to those who seldom or rarely use them except for their own pleasure.
  - (d) Stricter control should be kept over the use of motor transport. I will refer to this in greater detail in my note on the Public Works Department motor service, and I will only add here, by way of illustration, that the Public Works Department staff covered, on an average, 376 miles per working day, or a total mileage of over 100,000 miles in the course of 1931.
  - (e) The concession whereby officials in Pemba may purchase petrol from Public Works stocks should be discontinued. It is a relic, I understand, of the time when petrol was difficult to obtain and when there were few, if any, private stocks of petrol held in Pemba. The concession, besides being wrong in principle, creates unnecessary accounting. Its withdrawal might elicit a request for the continuation of the special Pemba mileage allowance on the ground that petrol purchased from local dealers is dearer in Pemba than in Zanzibar, but as the difference is slight and as the mileage allowance at the Zanzibar rate allows a sufficient margin, this argument would have little force.

36. *Free transport of stores.*—Officers in Pemba are allowed free transport by Government steamers of stores, up to 100 lbs. per week per officer. The allowance is defended on the ground that officials posted there would, otherwise, have to pay more for their supplies than those stationed in Zanzibar. The privilege is not allowed to officials resident in up-country districts on the mainland, and the increased cost of stores should be balanced by a reduced price for local products in towns away from the capital. It follows, also, that there is no inducement to patronize the local merchants. The concession should be withdrawn and officers required to pay commercial rates for the transport of stores if these are to be imported from Zanzibar. In any case the reason put forward does not cover the recent extension of the privilege to free transport of 100 lbs. per week to Zanzibar from Pemba. The only ground put forward was apparently the alleged necessity of sending clothes to Zanzibar for washing.

37. *Pensions.*—I have alluded in paragraph 8 to the heavy annual commitment which the public revenue has to meet by way of pensions, a liability which will tend to increase during the next two decades. The commitment is unavoidable but would have been materially less if ordinary financial prudence had been observed in adding new posts to the permanent and pensionable staff, more especially in the case of the Public Works Department. The reason adduced, as regards the non-European staff, that the local supply of artisans was limited, and that a reliance on temporary engagements would have resulted in holding up work, is far from convincing unless it is assumed that a programme of work cannot be laid out beforehand.

For the future, care should be taken to see that pensionable status is only granted to the staff which is definitely of a permanent character. In particular the special staff employed on Public Works construction or extraordinary should be engaged on agreements without any promise of pensionable status.

Other questions relating to pensions will be considered in later sections of this report.

#### B—NON-EUROPEAN STAFF.

38. The majority of the clerical establishment, as well as the holders of the higher technical appointments, are Asiatics on scales of salary which, to one accustomed to Indian standards, are lavish, particularly in view of the poor type of employee who is found here. The scales range from £90 to £135 per annum for clerks in the lowest grade to £247 10s. to £315 per annum to clerks in the first grade. A house allowance of fifteen per cent of the initial salary is paid in addition, except to employees who are of local domicile, and most posts carry pensionable status. Passages, family passage assistance and generous intervals of leave are other privileges attaching to these appointments. Although by comparison with salaries paid in India the rates prevailing in East Africa are exceptionally high, it was stated by a Committee appointed in 1926, when the non-European salaries were revised, that the junior grades could hardly exist on their pay and that many had to supplement it by outside

work in order to keep out of debt. The fact remains, moreover, that it seems very difficult to attract really competent candidates, either locally or from Bombay, on existing salaries and a general complaint is made that the type of man recruited in recent years is distinctly inferior and unintelligent. The local Government is alive to the heavy cost of the imported subordinate staff, but the problem is not easy of solution. The neighbouring territories are more happily situated in this respect. Uganda has an intelligent and enterprising native population which, with the educational facilities available, is likely, in future, to replace the imported Indian clerks and artisans: Tanganyika is also similarly favoured, though in a lesser degree, but can rely to some extent on Nyasaland natives, and the Government there have started an African Civil Service. Kenya, on the other hand, can look towards the locally-born European youth to staff the junior grades of the service. Zanzibar, at present, has only the alternative source of the recruitment of locally-born Indians unless the Arabs turn out more favourably than local opinion predicts, and I must record that I found no one, even in the Department of Education, who believed in the capacity of the Arab to replace the Indian in subordinate posts, the general view being that with few exceptions the Arab, although fitted for administrative posts, was temperamentally unsuited for clerical tasks requiring concentration. It is true that there is no school in Zanzibar teaching up to a standard even approaching that of the Indian matriculation, but it was stressed to me that the Arab was not by inclination interested in routine and that those who had been given a start in junior posts, while satisfied with their own ability, made no effort to qualify for promotion by further or sustained effort. If this view is correct there is indeed little hope of replacing the imported subordinate by local native talent, although it is a bitter cry on the part of the Arab that his sons are debarred from clerical posts owing to lack of educational facilities and to the trades unionism of the Indians who, they allege, combine to prevent any Arab or Swahile from entering or, having entered, from progressing in the clerical service. In a memorial from a number of unemployed Zanzibaris it was represented that talent existed if only opportunities were offered, and they instanced the case of a number of Zanzibaris who had found posts in the African Civil Service of Tanganyika. I am informed, however, that the Zanzibaris who have made good there are natives of mainland extraction—probably the descendents of slaves—who have received a missionary education. The experiment might be tried of staffing one or two departments mainly, if not wholly, with Arab and Zanzibari subordinates in order that local talent might be given an opportunity of showing its mettle and of working in an atmosphere free from Asiatic prejudice. But without a nucleus of trained Arab clerks at the top, the experiment would certainly have little chance of success, and for this reason an attempt would have to be made to draft in to the department selected two or three Arabs with experience of the clerical service, if these could be found, under whom the juniors could receive a patient and sympathetic training. Offices which might be singled out for such an experiment are those of the Education Department and the District Administration in Pemba. I am warned, however, that, just as the Indian is alleged to resist the entry of Arabs to the subordinate service, so will the Arabs be likely to combine to prevent Africans from obtaining posts, which, they consider, should be reserved for their own race. Apart from this, no immediate departure can be made, so far as I can see, from the policy of relying on Asiatics for subordinate tasks, but it should at least be possible to draw on the sons of local Indian residents to a greater extent than formerly. If this were feasible a lesser salary could be paid than is paid to-day for candidates imported from Bombay or Goa. Moreover, it should certainly not be necessary to pay house allowance to young Indian clerks who would, normally, live with their parents, and this privilege might well be withheld from all subordinates until they reached Grade III in the graded establishment or its equivalent in the ungraded staff. In the same way the provision of passages to India might be reserved for clerks in Grade III, as it is unlikely that Indians born in Zanzibar of parents long settled in the island would normally visit their own country except at infrequent intervals. In other words, the object to be aimed at is the recruitment of local Indian youths for the lower ranks of the service on terms approximating more closely to those which they would enjoy if, on leaving school, they entered a local Indian-managed business. The matter is one which requires a more exact knowledge of local conditions than I can pretend to and should be examined by the local authorities.

39. So far as recruitment for special posts is concerned, I would suggest that if local candidates are not forthcoming and if difficulty is still experienced in obtaining really suitable men from India or Goa, recourse might be had to Ceylon whence, I understand, excellent clerks with office experience and stenographic qualifications have been supplied to the mainland Governments.

For special posts requiring higher qualifications than merely clerical the Indian Civil Service Commission might be consulted.

40. The general conditions of service for subordinates, viz., salaries, leave, passages and pensions, are a matter which, like those of the European staff but to a lesser extent, concern the mainland territories, as some degree of uniformity in terms of service is desirable. But, as I have pointed out, each territory has its own problems and undue weight may be attached to uniformity of conditions.



I believe, however, that the cost of the Asiatic Civil Service is a matter which is causing concern to the mainland governments as well, so that the subject might usefully be discussed with those governments in order to see what modifications, if any, can be made in the more important conditions of service common to all those Governments who recruit from the same source.

41. In addition to the clerical and technical posts which fall in the category of "graded" appointments, there is another class of post, staffed mainly by the mechanic and artisan type, which is termed "ungraded." The salaries for this type of employee were fixed in 1926, the criterion being, presumably, the normal market rate paid by private employers. The pay of this "ungraded" class seems to me susceptible of drastic revision, as to choose but one example, a wage of £162 a year, plus house allowance and pension rights, is altogether disproportionate for an Asiatic chauffeur. The posts should be re-graded after examination of conditions by a local committee which should aim at the abolition of the present Range I and the re-grading of Ranges II to IV as I to III.

The right of present holders must be conserved and the application of the newly constituted "ranges" can only be gradual, as vacancies occur. The employment of Indian subordinates, particularly by the Public Works Department and Sanitation Department, to do work which could be carried out by Africans with reasonable satisfaction is another cause of unnecessary expenditure.

42. I have already mentioned the heavy liability which will be incurred as the result of the wholesale grant of pensions to the European and non-European staff. At present a non-European may acquire pensionable status on the following conditions:—

- (i) that he has been duly confirmed in a permanent appointment;
- (ii) that he is in receipt of a salary exceeding Rs. 150 per mensem.

The regulations relating to pensions and gratuities were revised last year so as to raise the salary limit at which pensionable status could be acquired from Rs. 100 to Rs. 150, which was a step in the right direction. But even so, seeing that all posts in the estimates are deemed to be permanent, unless specially declared to the contrary, this means that the higher paid artisans and mechanics, to whom it is not usual elsewhere to grant pensionable status, may achieve this status in Zanzibar. An effort should, therefore, be made to withhold pensionable status, so far as future entrants to the service are concerned, from employees of the artisan class, leaving them to benefit as they can do now in certain circumstances, by gratuities at the end of their service. This can be achieved either by declaring specific posts in the service to be pensionable and excepting from the list purely technical appointments, or by reducing the pay of the "ranges" of the ungraded staff, as suggested above, in such a way as to make Rs. 150, which is the limit above which pensionable status can be obtained, the maximum of the "range" except for a few special posts. The effect of the latter alternative would be to restrict the grant of pensionable status to the very few posts which would remain in the highest "range." Employees of the artisan class not qualifying for pensions would, as stated above, still be eligible for a substantial gratuity if retiring in circumstances which, had they acquired pensionable status, would have entitled them to pension.

43. The other conditions of service for the non-European staff call for no detailed observation and may be dealt with in the following paragraphs:

- (a) *House Allowance*.—As suggested in paragraph 38, the grant of house allowance should be confined, if possible, to officials in Grade III or its equivalent range.
- (b) *Overtime allowance*.—A sum of over £880 is provided in the estimates for overtime allowances to various non-European employees. It is customary in most administrations to recognise overtime in the Post Office, Printing and Customs Departments, but elsewhere it is not deemed necessary to pay overtime to classes of employees, such as meter readers, wireless operators, mechanics, chauffeurs, etc., the nature of whose employment requires them to work at unusual hours in order to deal with emergencies, etc. The overtime regulations specifically state that the payment of these allowances is an act of grace and that they may be discontinued at any time. I recommend that Zanzibar should fall into line with the practice in other Colonies and that the allowance should cease except to Postal, Printing and Customs staff.
- (c) *Leave*.—In view of my recommendation that the tour of service of the European staff should be extended to the maximum of 30 months I consider that the tour of service of the non-European staff domiciled in India should be extended to four years. This will effect some savings on passages and should involve no hardship, seeing that there are many Indians in Zanzibar who look upon the island as their adopted home and are content to reside here for years without a change.

(d) *Acting Allowance.*—As I have recommended a modification of the regulations governing the grant of acting allowance to Europeans, I consider that the allowance granted to non-Europeans acting in certain specific posts should be abolished. The opportunity of showing his worth in a higher appointment should be welcomed by a junior clerical officer as opening up prospects of advancement. Moreover, one of the reasons advanced for the grant of acting allowance to European officers acting as heads of departments, viz. increased expenditure on entertainment and living costs, would not apply in the case of non-Europeans acting in specific posts.

It may be noted that the Subordinate Staff Board, in revising the list of clerical posts which should carry acting allowance, recommended that there should be over fifty such posts.

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## CHAPTER III.

## ANALYSIS OF DEPARTMENTAL EXPENDITURE.

44. The Government is administered by the British Resident assisted by the Executive Council, of which His Highness the Sultan is President and His Excellency the Resident is Vice-President. Up to the present the other members have been the Chief Secretary, Attorney-General and the Treasurer. The Director of Medical and Sanitary Services, the Director of Agriculture and the Director of Education have recently been added to the Council. There is also a Legislative Council with an official majority but including nominated unofficial members.

This report does not deal with the expenditure under the first two Heads of the Estimates relating to His Highness the Sultan and His Excellency the British Resident.

## THE SECRETARIAT.

45. The office side of the work of the administration is dealt with in the Secretariat and Zanzibar is particularly fortunate in being able to house all its main offices in a fine building like the Bet-el-Ajaib. This concentration should make for economy in staff more especially in menial staff.

46. The European staff provided for in the estimates for the Secretariat includes two permanent officers, a Chief Secretary and Assistant Chief Secretary, and two officers seconded from the Administration, though sometimes one only is so employed. The clerical staff consists of one superintendent and six clerks.

47. The method of dealing with files is the ordinary arrangement of book files with no file precis and no printing. The main files for all departments are in the central Secretariat but departments keep copies of the more essential papers for their own domestic files. A short inspection suggested a few causes for some apparently unnecessary accumulation of files. One is the practice of keeping all personal files for clerks and subordinate staff in the central office; it does not appear why each department should not keep its own. After sanction has been given to the first appointment of a subordinate, it should not be necessary, as a rule, to refer the file again to the Secretariat, since heads of departments should be given wide discretion in dealing with their own subordinates. The second is the apparent reluctance of some heads of departments to take responsibility even in small matters and also the unnecessary references required under the regulations. For instance, the writing off of petty stores and promotions in ungraded posts might be disposed of by the Treasurer. A third is the waste of time and labour by the unnecessary wandering of a file on some small matter through a whole hierarchy of officials of two departments before the active agent is reached. This is a difficulty in any Government but appears to be rather abnormally present in Zanzibar. The system of registration is not very satisfactory and needs some reorganising. Several different files may have the same number and many files contain a collection of varying problems with a very slender thread of connection. On the other hand the files dealing with decrees do not always contain the later amendments.

48. As regards the European staff, two permanent officers appear to be required as leave arrangements have to be made for both His Excellency the Resident and the Chief Secretary, while at the same time maintaining continuity of experience.

49. It should not be necessary to have more than one additional officer on deputation from the Administration except possibly for short periods of special stress. Work can be to some extent reduced by discouraging unnecessary references and by the other small reorganisations suggested above. The question might also be considered of transferring the work of the Clerk of the Executive Council to the Private Secretary of His Excellency the Resident. One officer has part time work as Private Secretary to His Highness the Sultan.

50. A great deal of time is taken up in compiling the information required on questionnaires received through the medium of Colonial Office Circular despatches, many of which have very little relation to the special circumstances of Zanzibar. This is, however, a difficulty experienced in all Colonial administrations and cannot be affected by any local action.

51. As regards the strength and organisation of the clerical and menial staffs of all departments, the whole question is under examination by a specially well qualified local Committee. Their recommendations will be dealt with as a whole in a supplementary chapter of this report and it is therefore unnecessary to touch on the subject in dealing with individual departments.

## PROVINCIAL ADMINISTRATION.

52. Zanzibar is divided for administrative purposes into two provinces, Zanzibar island and Pemba, under the control of two Provincial Commissioners, both drawing a salary of £1,200. Neither of these officers carries out duties or exercises responsibilities commensurate with their experience or their scale of pay.

The Provincial Commissioner of Zanzibar is a useful member of various boards and committees and deals with departmental references affecting natives and native policy. Correspondence between the Chief Secretary and the two District Officers for Zanzibar goes through him and he tries to get out for local inspections seven or eight days of the month. For the rest of the month he is for the most part tied to his office by clerical work of the most routine kind, signing licences of all kinds, issuing passports and permits for the mainland, collecting rates in the town of Zanzibar, controlling the town markets and the Government stables. The work is added to by the entirely unnecessary elaboration in issuing the thousands of permits required for native travellers going to the mainland on which a whole series of details are entered which are entirely useless. It is in fact an extraordinary collection of routine office work, largely municipal in character, which has no connection with the duties of a Provincial Commissioner as ordinarily understood. It is even harder to find any justification for the post of Provincial Commissioner of Pemba except for the purpose of supervising his three possibly inexperienced District Officers, acting as an intermediary between them and the Chief Secretary and, if necessary, co-ordinating the work of various departments.

I can see no justification for retaining either of these posts in their present form but shall set out later the reasons which appear to make it desirable to retain one post of this grade.

53. The greater part of the work done by the office of the Provincial Commissioner of Zanzibar should be transferred to the office of the municipality, the institution of which I shall recommend later and the rest of the work connected with licences, permits, and passports should be greatly simplified and distributed among appropriate offices.

54. Below the Provincial Commissioners are the District Officers, of whom there are two in Zanzibar and three in Pemba. The population of the two districts in Zanzibar is 38,500 and 32,000 respectively, excluding the town itself. The populations of the three Pemba districts are 39,000, 33,000 and 23,000 respectively. The number of criminal cases tried by District Officers in the exercise of second class—in some cases third class—powers does not require an average of more than about one morning per week and the District Officers in Zanzibar—but not in Pemba—also do a small amount of civil work. They are also in general control of the local jails and the police work in their areas and have periodical meetings and discussions with the "mudirs" and "masheha." Apart from this, their work is mainly of an office type including revenue collections, the administration of estates under Rs. 500 in value and supervision of the registration of documents. In addition, much time is spent at the three Pemba headquarters in supervising postal and port and marine work, and the embarkation both of passengers and of cloves. At Zanzibar itself and at Mkoani in Pemba a great deal of time is taken up with the work of what is practically a labour exchange, including the signing of a large number of agreements for picking cloves made under the Masters and Servants Ordinance. These agreements seem of questionable value, but as much store is set on them by the Arabs their abolition would be resented. On the other hand there appears to be no substantial advantage in continuing the elaborate arrangements in connection with the registration of Wanyamwezi labour in the District Office, Zanzibar.

55. A large proportion of the time of District Officers is, therefore, spent on duties alien to the ordinary conception of their functions, but this is largely due to the fact that the Zanzibar Government has never developed a consistent policy with reference either to the all-important question of land or to any other question of native development. A District Officer has no functions which really bring him much in touch with native life otherwise than as a magistrate exercising petty jurisdiction, and the only people with whom he is really brought in contact are the "mudirs" and "masheha." The character of these contacts depends mainly on the personal equation of the officer concerned.

In the special circumstances of Zanzibar it is probably unavoidable for the District Officers in Pemba to be charged with a good deal of work ordinarily carried out by Port Officers and their assistance is also necessary in connection with other aspects of the all important clove industry, but this would not prevent the development of a more adequate view of the proper functions of a District Officer. I understand that this is, in fact, in process of evolution, and it should result in making the Protectorate a better sphere for the training of junior officers than it can be under the present system. The change of scope could be facilitated by transferring to the Lighterage Superintendent in Pemba, whose retention has been recommended, some of the embarkation work now done by District Officers.

56. The number of districts in Zanzibar may remain as at present though if adequate arrangements are made for the "Ngambo" area of Zanzibar town it might even be administered as a single district, and I can see no reason why Pemba should be divided into more than two districts. But

for the confined area available in Chake Chake and its very bad water supply Pemba could, in fact, be administered as a single district, but, taking the actual conditions into account, the reduction of the present three districts to two will probably be the most satisfactory arrangement and will only require the same superior staff.

57. Each district is subdivided into three—in one case four—mudirias and each mudiria into shehas areas varying from six to sixteen in number. Both the “mudirs” and “masheha” have a general responsibility for the keeping of order in their respective areas and for the reporting of all facts which should be brought to the knowledge of the administration. The “mudirs” are Arabs and are appointed by Government. They correspond to some extent to the old Liwalis but with smaller areas and less authority. The “masheha” are supposed to be elected by the *wazee* or elders who represent the original village customary authority. The “mudirs” are marriage authorities and have some small responsibilities in connection with the collection of revenue. By a recent innovation which contains the germ of valuable developments which will be discussed later, the “mudir” is *ex officio* the President of what is termed a District Court, a native tribunal the other members of which are the “masheha” and two or three non-official members who may be Arabs, Indians or natives.

58. The salaries of the “mudirs” vary from Rs. 75 to Rs. 250 per month and of the “masheha” from Rs. 10 to Rs. 28 the average being Rs. 15 per month. At the present time the “mudirs” vary considerably in educational attainments and in administrative ability, but it is hoped to form by degrees a mudirial cadre of adequate education and of good family who may be equal to the judicial and other responsibilities which it is hoped to entrust to them by degrees. This may involve some increase in the rates of pay but no serious commitments will be involved and this experiment in the direction of native administration is a very hopeful feature of the present position. A desirable later development would be the appointment in the purely native areas of “mudirs” drawn from their own people. Many of the “masheha” are illiterate, including some of the most capable among them, but as education extends it is hoped that men of greater intelligence will deserve higher remuneration. The cost will be met for the most part by a reduction in the number of “masheha” but no reduction of expenditure should be looked for under these heads.

59. It remains to deal with the administration of the town of Zanzibar and to explain the functions of the officer whom I consider it necessary to retain with the status of a Provincial Commissioner.

60. As regards the town of Zanzibar a later section of this report will propose the setting up of a form of municipal administration with an experienced officer of the administration as its town clerk or executive officer vested with adequate powers over the municipal staff. This work will not take the whole of his time and he could, if necessary, assist in other work such as native affairs in the “Ngambo” area or the control of an Inland Revenue Department. A Provincial Commissioner is not required for the purpose of ordinary day to day administration by the District Officers, though occasions do arise on which the advice of a senior officer able to tour and see things for himself would be of great value to the administration. The special need for his services arises however from the fact on which I have already commented, and about which a good deal will be said in a later section of the report, that the Government has hitherto had no native policy, no policy for dealing with the complicated problems of rights in land and preventing the gradual ejection of the native tribes from the best areas in their possession and no policy of native development.

61. The present administration of the Protectorate proposes to initiate developments in all these directions and for this purpose it is essential that the advice should be available of an experienced officer versed in native customs who, whether he is called Provincial Commissioner or Secretary for Native Affairs, shall have as his special function the protection of native interests and the working out of all schemes which have for their object the increasing of the security of tenure of the native population and the raising of their standard of living. His headquarters may be at Zanzibar, but he should be essentially a touring officer and should not be so burdened with routine work as to develop a secretarial outlook. A large proportion of his time should be spent in Pemba. As adviser in native affairs he should be a member of the Executive Council.

62. This concludes the list of the tasks which will be carried out by the officers of the administration and it remains to consider the strength of the cadre which will be required to carry out these functions.

The budget estimates now provide for a total strength of fifteen officers, but the proposals as now worked out will permit of a considerable reduction in their strength.

One Administrative Officer should suffice for seconding to the Secretariat, one is required as Provincial Commissioner or Secretary for Native Affairs, and one as Town Clerk or Executive Officer of the proposed Municipality who would also be able to undertake other functions in addition. Two District Officers should suffice for Pemba and two may be allowed for Zanzibar island. Adding two

officers as a leave reserve on the assumption of a thirty months tour, a total strength of ten officers should be adequate as compared with the present budgeted strength of fifteen. No provision is made for cadets under training who will be required from time to time. As suggested in Chapter VII below it seems better to replace the training of cadets in a small administration such as that of Zanzibar by an arrangement with the mainland territories for the supply of administrative officers with a few years experience in coastal districts. With this training behind them they will be fully competent to take charge of districts in Zanzibar.

64. Out of the authorized establishment of 15 Administrative Officers one will be seconded for work in connection with Co-operation leaving an excess of four over the number, viz. ten, recommended in this report. In the normal course of events it would take a considerable time for these four to be absorbed and the stopping of recruitment for too long a period would affect the balance of the staff as regards seniority. To prevent this it would be desirable to ascertain whether one or more of the extra officers could not be absorbed by some of the other Territories. The position will however be altered if it is decided to undertake a general cadastral survey of both islands a question which is discussed in paragraph 400 *et seq.* Should this course be decided on the surplus officers are likely to be required as Settlement Officers for some years to come and it may also be desirable as suggested in paragraph 119 to replace the Administrative Officer who will fill the proposed post of Town Clerk by an officer from the staff of the Administrator-General.

65. The heading Provincial Administration in the budget estimates covers an estimate of Rs. 7,448 on account of Government Stables and Transport. Very little use is now made of the carriages and His Highness the Sultan might be consulted whether these could not be replaced by some more up-to-date arrangement at considerably less cost.

#### TREASURY AND CUSTOMS.

66. These two departments are considered together because by a recent arrangement the posts of Treasurer and Comptroller of Customs have been amalgamated. I recommend that this arrangement should be confirmed. The pay has been provisionally fixed at £1,300. The work of the combined posts is heavy, and including as it does all the arrangements in connection with clove exports is of primary importance to the Protectorate. I have recommended in paragraph 22 that the salary should be the same as that of the Attorney-General.

67. On the Treasury side of his work the Treasurer is supported by a European Assistant Treasurer. He was appointed in December 1930 for the purpose of re-organizing the work of the Treasury which was not being conducted on satisfactory lines. The work is in progress but much remains to be done and a trained Assistant Treasurer is essential until re-organization has been completed, including the placing of the accounts of the Government undertakings on a proper financial basis. Even after the completion of this task I doubt the advisability of reducing the post, considering the proportion of the time of the Treasurer which will be taken up on Customs administration and other responsible duties, including more especially those of financial adviser to Government and membership of the Executive Council. The necessity for careful supervision of the routine work of the Treasury, including the checking of sub-accountancies, will still require a capable officer if financial loss is to be guarded against.

68. On the Customs side of his work the Treasurer and Comptroller is supported by the Assistant Comptroller who supervises all the branches of the routine Customs administration. Another officer styled the Assistant Customs Officer is also a trained Customs Officer but can, if necessary, pick up enough knowledge of Treasury work to act in leave vacancies either in the Customs or in the Treasury. An officer without Treasury or Customs experience would be useless as a substitute in leave vacancies.

69. No reduction seems possible in the superior posts of the Customs service. As regards subordinate staff, the Comptroller has recently effected a reduction of two posts in the outdoor branch and three preventive men. Subject to any recommendations made by the Committee enquiring into staffs I do not recommend any further reductions at present. If procedure can be simplified, either with reference to clove exports or to the method of levying import duties, an opportunity for some further reduction should arise.

70. The estimated gross Customs revenue for 1932 is Rs. 38,40,000 and the estimated cost of collection is at the rate of 2.88%. The estimated revenue is below the normal but, on the other hand, the income from clove duties is, from the customs point of view, rather easy money. Allowing for these circumstances the cost of collection is not unduly high.

71. The main divisions of Customs work are those relating to imports, exports and entrepot trade but, in addition, the actual management of the wharf and of the clove market held in the shed used as a clove depot is in the hands of the Customs Department.

Much of the work in connection with the wharves and with shipping is done through the agency of the African Wharfage Company. The arrangement with them as regards rates of charge is a complicated one but its terms appear to be fair.

72. The general import duty is one of 15% ad valorem with a limited list of exemptions and specific duties on liquor. The valuation is based on the C.I.F. landed costs and the Comptroller of Customs, if not satisfied as to the correctness of the declarations, can fix his own valuations. In general, the valuations are based on merchants' declarations supported by invoices and checked against the ships' manifests.

The chief possibilities of malpractices lie in the presentation of false invoices giving a lower value than the actual value, the actual substitution of goods in the transshipment godowns, and the misuse of the facilities afforded by those godowns by shipping consignments lodged in them to adjacent ports and reimporting them under invoices showing a lower value than the original value shown by the suppliers overseas. On these subjects I have been assisted by a valuable memorandum supplied by the Zanzibar Chamber of Commerce, but the Comptroller is also fully alive to the dangers from these sources.

The general basis of Customs administration in Zanzibar should be a recognition of the very close connection between the trade of that port and that of the other East African ports. In accordance with this fact the Customs procedure of Zanzibar should conform as far as possible to the principles accepted in the mainland ports.

The main difference of principle at the present time is that relating to the basis of valuation. Zanzibar has retained the principle, previously accepted on the mainland, of valuation on the value at the port of shipment c.i.f., including all charges up to the deposit of the goods in Customs premises at the place of importation. The mainland ports have, on the other hand, altered their basis of valuation to one based on current domestic value in the country of origin.

I agree with the Treasurer in recommending that Zanzibar should now fall into line with the mainland practice in this important respect. When the system is fully established a probable ultimate result will be the introduction of a joint system of inspection in the country of origin for the purpose of checking the local domestic values. Such a system of inspection has, for example, been organized by South Africa. The change in the basis of valuation, coupled with the extension of the system of specific duties, will be of material assistance in checking the leakage due to the causes mentioned above. One result will be the adoption of a proposal supported by the Chamber of Commerce for the introduction of a form embodying all the specific details required by the Customs authorities. Invoices are already certified but a specific form as in use on the mainland will follow the new basis of valuation. The change should also put a stop to evasions of duty by the misuse of the facilities afforded by the transshipment godowns because the mainland ports which are used in this connection will not be the country of origin the domestic value in which will be the new basis of valuation.

Other proposals supported by the Chamber of Commerce are (1) that the Customs authorities should insist on the use of English in the compilation of all invoices; (2) that, where and when available, consignees should be required to lodge a certified bank statement of draft value; (3) that a valuer should be appointed who would unite the assistance of the Chamber of Commerce.

The Chamber add that a form of certified invoice would reduce the frequency of evasion of duty payments but that only the imposition of specific duties will put an end to undervaluations.

The first proposal would not touch on some of the chief sources of doubtful invoices but would cause considerable difficulties in the trade with India from which not only the main invoices but the supporting documents are in Gujarati. It is always a difficult matter to impose prescribed forms and methods on Indian trade and in this case the advantages would appear to be problematic as English invoices can be manipulated quite as easily as those in Gujarati.

As regards the second proposal for the lodging of certified bank statements these would, it is true, afford an additional check, but, on the other hand, a large proportion of the documents do not come through a bank and the proposal would, in effect, discriminate against that method of carrying on trade in which evasion is probably least likely.

As regards the third proposal to appoint a local valuer, local valuations are, in fact, already made to some extent. The system of local valuing could only be really effective if the whole basis of valuation was changed to that of the value in the local market. Such a radical change of system does not appear to be called for at the present time.

73. The question of certified invoices has already been dealt with. As regards specific duties it is certainly desirable that these should be extended as far as practicable but there are very definite limits to the extension of the system. It is proposed to fix new specific rates for about a dozen new items including more especially unbleached cotton piece goods, kerosene and petrol, cigarettes and tobacco, and cement. It does not seem advisable to do more at the present time though the possibility of a further extension of the system should be borne in mind.

It has also to be remembered that the scope for evasions of Customs duties by the presentation of false invoices is a limited one because, in the case of foodstuffs which form a large proportion of the total imports, detection would be almost certain and invoices are not accepted in the case of inter-port trade. The possibilities are, therefore, practically restricted to the imports of textiles.

The danger from the actual substitutions of goods in the transshipment godowns does not appear to be a serious one.

74. I have discussed with the Treasurer the question of alterations in the existing duties and certain changes appear to be desirable in the direction of removing exemptions in respect of some articles locally consumed other than the necessities of life, including salt, consumed by the poorer classes, and of raising the rates of duty on a few luxuries. The result of these changes will come under consideration in connection with the possibilities of increasing revenue, but it may be noted here that the yield should amount to at least one lakh per annum on a conservative basis. Apart from these changes, there will be a revision of the free list to bring it more into accordance with mainland practice.

No general increase in the rates of duty on imported articles is desirable ; in particular the rates on rice and the other chief staples of local consumption should not be raised.

#### AUDIT.

75. Up to November 1928 the accounts of the Protectorate were subject to audit by the Auditor, Kenya Colony and Protectorate. It was carried out by a Branch Office established in Zanzibar. The total expenditure recently incurred varied from £2,024 in 1925 to £2,583 in 1928.

An independent audit was instituted on the 10th November, 1928, with a staff of an Auditor, a Chief Clerk seconded from the Kenya Audit Department and three other clerks. Two other clerks have been added subsequently, one of these a so-called learner clerk.

The programme of work approved by the Director of Colonial Audit is adequate to employ fully the time of the staff, allowing for absence on leave.

Most of the tests are on a 50% basis and nothing less than 33½% is allowed.

The department has justified its existence, more especially in 1929 when a number of frauds were detected.

#### PORT AND MARINE.

76. The main branches of this department are :—

- (1) The Zanzibar Protectorate Marine Service including the two ships "Cupid" and "Khalifa." The service includes the Lighterage Superintendent in Pemba who has seven lighters and six motor boats in his charge. He also carries out the necessary surveying in Pemba ports.
- (2) The lighthouse service.
- (3) The conservancy of ports including work in connection with the buoys, fenders, the provision of motor boats for all transport services including those for the quarantine and immigration officers, the landing of mails. (The work in the basin, including dredging, repairs to wharves, buildings on the Malindi reclaimed area, etc., is all carried out by the Public Works Department.)
- (4) The registration of native vessels and of all harbour craft, including surveying, registration, and licencing, and the control of licensed boatmen. Control over all these classes is chiefly exercised through the licences.
- (5) Generating acetylene gas both for the local light houses and buoys and for the Seychelles, Aden, Kenya, Tanganyika and the Belgian Congo.
- (6) The stores department at the Bet-el-Ajaib. The average value of the stores is about Rs. 50,000 ; coal is stored elsewhere to about the same value.

77. Approximately £450,000 was spent on the new harbour works between 1921 and 1929 and the area reclaimed and the wharves and buildings constructed represent a definite and substantial advantage, while a certain amount of shelter has been provided for the smaller type of boats. These results could however probably have been achieved for half the money expended.

78. The general organization of all departments is under the Port Officer and Assistant Port Officer assisted by the Chief Clerk, the Harbour Overseer and to some extent by the Harbour Engineer.

79. Considering first the *Protectorate Marine Service*, Appendix IX, summarises the revenue and expenditure over the period of seven years up to 1931.

The expenditure includes interest at 5% on the capital valuation of the ships, plant and equipment and at 8% for replacement charges for plant and equipment on the valuation at the end of each year. It also includes in the last three years an annual average contribution of Rs. 52,958 to a sinking fund for the two ships with smaller contributions in previous years. The fund was only actually instituted in 1929 and the figures for earlier years are estimates only, but a special contribution of Rs. 200,000



was made in 1931 and this has been distributed in the accounts, the normal contribution of Rs. 24,387 being provided for 1932. In the upper part of the statement the value of the services to Government is calculated at the very low rates charged to the public in the interests of the clove industry.

80. The year 1931 has been a record year in respect of the carriage of passengers and cargo but, notwithstanding this, the revenue from fares and freight was lower than in 1925 and 1926 owing to a reduction of fares made in 1928. Regarded as a commercial proposition, therefore, this service is run at a loss of over one lakh of rupees annually, the loss having been as high as Rs. 150,000 in 1929. Against this there is a set off in respect of the services rendered in respect of the lighthouses which may be estimated at Rs. 18,000, the approximate annual cost of a small tug, but the bulk of the loss must be regarded as a subsidy to the clove industry of Pemba which is assisted by free or reduced lighterage charges and shipping freights, and free passages for clove pickers. Proposals are under consideration for raising the fares, but these will only produce about Rs. 15,000 and it is not desirable to raise the rates of freight. The only other alternative which can be proposed is the abolition of the concession of free transport of 100 lbs. per week to and from Pemba sanctioned for all Government servants but the yield would be trifling. The concealed subsidy will still stand at some Rs. 80,000 to Rs. 90,000, though if conference rates were applied throughout there would be a paper profit.

81. The proposal has, therefore, been put forward that the Government service should be discontinued and arrangements made with some private steamship company. The ground assigned was the general one that Government steamship services are always expensive and that the work is better done by private agency. An examination of the various items of expenditure satisfies me that this service is, on the whole, carried on on much more economical lines than would be possible with ordinary European scales of pay and other requirements. The loss on the service is simply due to the concessions made in the interest of the clove industry. Considering the vital importance of the industry to the territory and the necessity of having steamers permanently available during the clove picking season in Pemba, it appears to be most improbable that a private company could give corresponding services without charging rates both for passengers and freight, which would be detrimental to the industry, or, in the alternative, being subsidized by the Zanzibar Government to an extent greater than the present loss on the service. I recommend therefore, that it should be continued with the alteration in passenger rates recommended above.

82. It is unnecessary to deal in detail with the sixteen minor heads of income of this department. Much the most important are Port and Light dues, the latter being levied on account of the three territories and not of Zanzibar only. The rates levied are rates agreed with the other three territories and there is no case for raising them.

83. The only other source of income which seems to have some possibility of increase is the receipts on account of acetylene gas. The rate fixed in 1927 for the supply of this gas was 3d. per cubic foot supplied at standard pressure. Taking into account depreciation and interest on capital there has been a loss of about Rs. 12,000 on this installation since 1927, the loss in 1931 being Rs. 2,727. There is, therefore, a case for raising the rate to say 3½d., but the possibility of losing custom would have to be taken into account.

84. As regards expenditure a point which immediately suggests itself for consideration in connection with the general principle of reducing the posts of assistant heads of departments is whether the post of Assistant Port Officer cannot be dispensed with. The main function of this officer is to act as leave relief and also to supervise the outdoor duties of the department and check income and marine stores. The pay of the present holder is £660 in the scale £600 by £30 to £720. The next professional post is that of Pilot and Harbour Overseer held by an Indian Officer who has 30 years' service and is due for a pension.

I do not consider that there is adequate work for the Assistant Port Officer when the Port Officer is in Zanzibar, but, on the other hand, the character of the ships visiting Zanzibar makes it practically essential to have a European as Port Officer, and it is necessary that he should have had a nautical training. A leave relief cannot be supplied by the administration as happened in the past unless it chances to include an officer with naval training. This is not the case in Zanzibar, though the mainland territories have several officers of this type. On the whole the best course appears to be to retain the post of Assistant Port Officer but to abolish the post of Pilot and Harbour Overseer. The pilotage work now done by him should be taken over by the Port Officer or Assistant Port Officer, and the other branches of his work would be taken over by the Harbour Engineer, who is a Parsee, and by his technical assistant. Leave vacancies could be provided for by the technical assistant taking over the management of the gas plant. The surveys of ships and other outdoor work would be divided between the available officers of the department.

85. The post of lighterage superintendent in Pemba is stated to be necessary in the interest of the clove trade, but up to the present the holder of this post has done little except keep the

lighters in repair. His functions should be extended so as to relieve District Officers of some of the work in connection with clove exports which they have, hitherto, carried on. Unless he can be given adequate work in this direction, the alternative should be considered of abolishing this post and of arranging for the supervision of the lighters by the Assistant Port Officer. When both the Port and the Assistant Port Officer are in Zanzibar during the clove picking season, there appears to be no reason why the latter should not be stationed in Pemba to supervise clove exports.

86. There appears to be no substantial reason why the stores of this department should not be combined with those of the Electricity and Wireless Department as both require to be on the water front. Coal is, in any case, stored separately. The amalgamation would permit of the reduction of one clerical post.

87. The clerical staff is chiefly employed on work in connection with licences and lists of crews and passengers more especially of dhows. The whole of the procedure should be examined with a view to simplification and reduction. The monthly licences for 20 motor boats and 60 rowing boats might, for example, be changed into quarterly licences. Further, the whole of the present arrangements for checking the crew and passengers lists of dhows and keeping a register of other movements seem of very doubtful necessity at the present time. They were originally introduced under the Brussels Convention for the purpose of combating the slave trade but, with the possible exception of dhows from Muscat, the necessity seems to have passed. On the other hand some form of agreement between the masters and the crew appears to be desirable.

88. Even more doubtful is the duty resting on the District Officers in Pemba and at Mkokotoni of checking the passenger manifests of dhows engaged in purely local trade. The only occasion on which it is ever suggested to have any value is on the outbreak of a small pox epidemic. Apart from such rare occasions, which could be specially arranged for, the procedure appears to have no value whatever and involves waste both of time and money.

89. The department is responsible for 20 motor boats and 12 rowing boats and, in all, there appear to be 15 drivers and 77 motor boat boys, including lighter crews.

Of the 20 motor boats four are required for mails and other harbour purposes, with one in reserve, the two ships each have a motor boat and six are engaged in Pemba in towing lighters, the service to Funzi, the Public Works Department and other purposes. The Resident has one boat, the doctor and immigration officer two, with one crew, two are at Mkokotoni and Chwaka and one is required for towing the harbour dredgers. The boat at Chwaka and the Public Works Department boat in Pemba should certainly be reduced and that of the Resident appears to be of doubtful necessity. The rowing boats are up for sale but no purchasers are forthcoming.

The post of coxswain also appears to be now superfluous, but if the post of harbour overseer is reduced, he may be required to look after the wharf.

#### GOVERNMENT PRINTING PRESS.

90. The present Government Printer has been in Zanzibar for sixteen years and the Press is largely his creation. The Assistant Government Printer is a linotype operator and was engaged when the first linotype machine was purchased in 1921.

91. The general policy is said to have been to introduce labour-saving machinery instead of increasing staff.

92. The Government Printer goes on leave in October next and retires in the following February. The Assistant Government Printer reaches the maximum of his scale (£540) during the same year.

93. The Operator Range I on Rs. 250 a month is a Goanese who does most of the proof reading and acts for the Assistant Government Printer when he is on leave or acting as Government Printer.

94. The high range of pay of the operators is due to the old practice of giving annual increments, the result being that all are at the top of their grades. For the last four years mechanics have been recruited on an ungraded system and increments are not given for less than three years service.

95. A considerable amount of overtime is worked but this is inevitable in any press.

96. Apart from leave difficulties, the Superintendent thinks that the press could be run without an Assistant Government Printer. The present head operator is hardly competent to be in sole charge, but if the Government Printer took his leave at a suitable time of the year it would probably be possible to borrow an officer to act for him from the press of one of the three territories. Failing this it might be necessary to engage an Indian Assistant Government Printer. The salary of the Government Printer might be fixed at £600 by £20 to £720.

97. The reduction of staff would be greatly facilitated by a reduction in the amount of work in which direction there appears to be considerable possibilities.

In the first place it cannot be necessary to print 1,780 different forms for the various departments. All forms printed should be examined by a Committee or a special officer and reduced to standard forms as far as possible. No new form should be printed without the special sanction of the Treasurer.

In the second place the local news supplement to the Government Gazette hardly appears to be necessary at the present time and the corresponding Arabic sheet appears equally superfluous. In any case they should be confined to items which the Government considers of special importance or, practically, to Government communiques.

There is also a great deal of unnecessary printing in connection with the departmental annual reports. Those which I have examined could have been cut down by half without omitting anything of permanent value and some could have been reduced with advantage to a considerably greater extent.

98. The qualities of paper used also appear to be unnecessarily expensive. A small supply of good note paper is required and possibly also of minute paper, but the bulk of departmental work does not require paper of the quality now generally supplied.

#### MISCELLANEOUS SERVICES.

99. The majority of unofficial bodies urged that the Protectorate's subscription list should be curtailed and that subscriptions should be restricted to services from which visible benefit to Zanzibar was obtained.

It is not always easy to convince laymen of the benefits likely to accrue from association with scientific bodies, and, in any case, most of the subsidies provided in the estimates are commitments for a series of years which cannot at present be disturbed without breach of faith, though, as they expire, the question of reducing them should be examined.

100. Of the subsidies shown under items 1 to 21 of Head IX of the Estimates for 1932 I propose, therefore, to touch only on the following :—

##### (a) *East African Agricultural Research Station at Amani.*

There is no suggestion that Zanzibar should discontinue its contribution to the Institute, but the local view, for which there is good reason, is that Zanzibar is paying too high a contribution in proportion to its revenues and importance, compared, for example, with Kenya and Uganda which subscribe £1,700 and £1,800 respectively as against £1,200 from Zanzibar. The matter is not one for local decision and should receive consideration in connection with the financial position of Amani and the general question of its maintenance by the Governments concerned.

##### (b) *East African Dependencies Trade and Information Office.*

For its present subscription Zanzibar obtains little benefit, nor is it likely to derive much advantage from an office in London unless the organisation is completely altered. The Protectorate requires, above all things, a clove intelligence service, a matter on which the Clove Mission will no doubt make recommendations. It may be necessary for Zanzibar to establish its own intelligence agency and in the meantime no promise should be made to subscribe to a trade office in London.

Other items of miscellaneous expenditure calling for comments are :—

##### (c) *Subsidy to the Roman Catholic Mission for the Maintenance of Pauper Hospital.*

Since the original agreement between the Government and the Mission, the cost of native food-stuffs has decreased, and the question of obtaining more favourable terms should not be lost sight of when the agreement, which is shortly due to expire, comes up for renewal.

##### (d) *Allowance to Immigration Officer and Clerk.*

It is understood that allowances are granted mainly on account of the night work involved in visiting steamers. The allowance to the Immigration Officer, viz., £75, seems high in comparison with that previously granted to, but recently withdrawn as a measure of economy from, the Immigration Officer in Dar-es-Salaam, viz., £40, and might be reduced to this figure unless the amount of night work is really excessive.

##### (e) *Exchange on Remittances.*

Provision is made to cover the cost of remitting funds to the Crown Agents and to the Agents in India to meet overseas liabilities. The over-invested position of the Protectorate and the fact that investments have been held in Bombay has to some extent accounted for the extent of the provision. Some reduction may be anticipated in view of the smaller purchases of stores now required owing to completion of the large public works programme of recent years. It may be noted that the Government has no arrangement with the Bank, not unusual elsewhere, whereby Government enjoys a special rate for remittances.

*(f) Language Allowance.*

In the Chapter dealing with the general conditions of service for Europeans it is recommended that these bonuses should cease except in special circumstances.

*(g) Rent of Houses and Lands.*

A sum of £4,800 is provided in 1932 for this purpose, divisible approximately as follows :—

Rent of 17 houses for occupation by 17 officials	... ..	£2,640
Rent of accommodation for district teachers and for clerical staff in Pemba	... ..	£600
Other rentals	... ..	£1,560

Quarters have been rented for the housing of European officials as the Government-owned accommodation in Zanzibar town has not kept pace with the increase of staff, but the reduction of European staff proposed in this report should, if put into effect, enable substantial savings to be made under this head and every effort should be made to surrender the leases as staff is reduced and as leases expire. In any case the rents are high, averaging over £150 a year per officer and, in view of the recent decline in property values, should be reduced when opportunity offers, if it is still necessary to augment the Government-owned accommodation.

A substantial sum is paid out for "other rentals" for buildings used as offices and for land on which Government buildings have been erected. It was surprising to find that even the Peace Memorial had been set up on leased land. It would undoubtedly have been more economical to purchase the land outright in the first place and it is not clear why, when the Protectorate had ample balances, funds were not used for this purpose. Many of the leases are for long periods, but, as they fall in, the question of purchasing the land outright should be examined provided that the buildings erected thereon are likely to be permanently wanted.

*(h) Reuter's Agency.*

The Government subscribes £75 per annum for this service as well as maintaining a wireless operator at a cost of about £150 in salary and house allowance solely to deal with the British Official Wireless Press. A duplication of wireless news is extravagant and either Reuter's services or the wireless operator for the Rugby Press should be dropped.

*(i) Allowance for Supplying Arabic News for the Gazette.*

A recommendation on this service is made in the note on the Government Press.

*(j) Stationery.*

Economy in stationery is suggested in the note on the Government Press.

*(k) Interest on Overdrafts.*

The somewhat large provision has been due to the over-invested position of the Protectorate which has now been adjusted. Capital has been tied up in securities so that it has been necessary to borrow from the Crown Agents to meet overseas liabilities as well as, occasionally, locally. The alternative, however, would have been to sell out securities. Some slight reduction under this head may be anticipated but will be accompanied by a reduction in the revenue head for interest on investments.

## JUDICIAL.

101. The European establishment of the Judicial Department consists of the Chief Justice, a Puisne Judge, three Magistrates and a Registrar. Of this cadre at least one is always on leave.

The Acting Chief Justice has represented that the present staff is inadequate and should be increased by one magistrate, and also relieved by the transfer of bankruptcy work to the Administrator-General's Office so enabling the Registrar to function as a magistrate in part of his time. With the establishment so increased and relieved the Acting Chief Justice would guarantee to find a substitute for the Attorney-General when that officer was on leave and also to provide a Magistrate for Pemba where, on account of shortage of judicial staff owing to leave reliefs, an officer from the Administration has been for some time seconded for judicial work.

102. This arrangement would make the judiciary a water-tight compartment, that is it would avoid the necessity of borrowing a magistrate from the administration, an arrangement which is almost inevitable at present when one of the magistrates is frequently acting as Puisne Judge or Attorney-General when those officers or the Chief Justice are on leave. The practice of borrowing from the Administration is not favoured by the Acting Chief Justice for the reason that administrative officers find court work irksome, and that it is not always possible to obtain an officer with suitable qualifications. But the proposal to appoint yet another magistrate in order to make the judiciary a self-contained unit is an ideal which the present finances of the Protectorate cannot afford, and if it is dismissed, as I fear it must be, it remains to examine what economies, if any, can be made in the present establishment.

103. It is admitted by the Acting Chief Justice that the work is light for two judges and the Chief Justice, Sir George Pickering, was considering in 1931 whether it would be feasible to dispense with the services of the Puisne Judge. It should be recorded that there have been two judges since 1901, but until comparatively recently the Puisne Judge took all civil cases arising in Zanzibar Island and in 1920 one judge carried on throughout the year unaided, even with this mass of civil work.

104. I attach a schedule showing the total cases in the High Court for the last seven years, from which it will be seen that a steady decrease of work has taken place since the peak year of 1926.

SCHEDULE OF HIGH COURT CASES, ZANZIBAR AND PEMBA.

<i>Civil.</i>	1925	1926	1927	1928	1929	1930	1931
Original Suits .. ..	217	290	284	284	148	122	149
Appeals .. .. .	34	26	31	39	38	53	40
Insolvency .. ..	70	76	100	80	69	51	56
Probate and Administration Cases .. .. .	251	287	203	169	132	171	145
<i>Criminal.</i>							
Sessions Cases .. ..	12	22	23	35	17	22	16
Appeals .. .. .	11	9	11	13	17	21	15
Revision Cases .. ..	12	15	6	12	20	19	22
Confirmation Cases ..	58	26	7	52	54	58	35
<b>TOTALS</b>	<b>665</b>	<b>751</b>	<b>665</b>	<b>684</b>	<b>495</b>	<b>517</b>	<b>488</b>

In Kenya, with 4 judges, there were 2,037 High Court cases in 1930; in Uganda with two judges, there were 729 cases in 1930 and in Tanganyika, with three, there were 701 cases in 1931.

Detailed figures of the Uganda and Tanganyika work are given in the following table:—

<i>Civil.</i>	Uganda, 1930.	Tanganyika, 1931.
Original Cases .. .. .	325	116
Probate and Administration ..	89	69
Bankruptcy .. .. .	17	24
Appeals, Revision and Reference ..	25	65
Divorce .. .. .	1	Miscell. { 34 Civil 11 Criminal
<i>Criminal.</i>		
Original Cases .. .. .	81	236
Criminal Appeals .. .. .	103	88
Confirmation of death sentences ..	7	—
Revisions .. .. .	81	159
	<b>729</b>	<b>701</b>

Comparison shows that Uganda had a very large excess in original civil cases, a considerable excess in original criminal cases, and a large excess in criminal appeals. In Tanganyika the great bulk of the work consists of original criminal work, which necessitates continuous travelling, and the great distances to be covered on circuit must be taken into account in appraising the burden of this work. Zanzibar shows a considerable excess in Probate and Administration work, but of these cases 79 were grants of administration to the Administrator-General which, as a rule, are little more than formal and the same remark applies to uncontested grants of probate or letters of administration. Comparison by total numbers of matters disposed of during the year may not be very satisfactory, but it is the only possible criterion and one which, on a rough computation, gives a fair picture of the work in the long run.

105. Without labouring the point by more detailed statistics, I consider that the figures adduced are sufficient to show that there is not sufficient work in Zanzibar for two judges, a conclusion with which, as I have stated, the Acting Chief Justice is disposed to agree. He contends, however, that, owing to the absence of a judge at the Court of Appeal for Eastern Africa and again on circuit in Pemba, it is not safe to reduce the bench, as the Protectorate should not be without a judge on the spot for long periods in one year. He also stated that one judge would find it difficult to cope with the administrative work and that the climate of Zanzibar was more trying than Mombassa, so that it would not be fair to expect continual overtime if, on reduction of staff, the work was too much for one man in ordinary office hours.

106. The first argument for consideration is that of the absence of a judge at the Court of Appeal and in Pemba. Hitherto it has been the almost invariable practice to summon the Chief Justice of Zanzibar to the Court of Appeal, which entails absences totalling several weeks in the year. This arrangement has been convenient to the mainland territories whose judiciaries do not appear to be over-staffed and which are not always able to spare a judge for the purpose, and at the same time, has not been inconvenient to Zanzibar where a judge has been available. But if the interests of Zanzibar alone are to be considered, there seems no reason why the Protectorate, from which incidentally there are very few appeals, should be called upon to supply a member of the Appeal Court on all occasions, and it should suffice if a judge is summoned only to those sessions of the Court which are held at Zanzibar, Mombassa or Dar-es-Salaam. If this limitation on the absences of the member from Zanzibar were clearly recognized, his total absence from duty should not exceed six weeks in the year. For circuit purposes in Pemba a total of 40 days, i.e., 4 visits of ten days a year, should be quite sufficient. During these absences the senior magistrate stationed in Zanzibar would have to be made a temporary acting Judge and the civil work of the Magistrate's Court so arranged as to leave the calendar free for criminal cases only. Local leave should be taken during the legal vacation, during which, also, one of the visits to Pemba might take place.

107. In order still further to relieve the single judge I recommend that the limit of jurisdiction in civil matters be raised to Rs. 2,000, the present limit being Rs. 1,000 in Zanzibar and Rs. 1,500 in Pemba. This should take a few more civil cases away from the High Court and should not throw on the magistrates an additional burden beyond their capacity.

108. I should explain, however, that the Acting Chief Justice deprecated any increase in the civil jurisdiction of magistrates, firstly, because he felt that their powers should not exceed those of a County Court Judge at home and that suitors should, whenever possible, have their cases heard by the best qualified tribunal, and secondly, because an extension of magisterial powers would still further diminish the work of the two judges, whose retention he was at pains to justify. So far as the first objection is concerned, I may observe that first-class magistrates in Tanganyika have jurisdiction up to £200 while that of the professional magistrate at Mwanza extends to £500. In India District Judges have unlimited jurisdiction.

109. I recommend also that, if the present Chief Justice proposes to retire at the end of his leave, he should be asked to undertake the revision of the laws, which will be necessary sooner or later and could not be carried out locally if the bench, in future, consists of but one judge. The revision should lead to a great saving of time among the Judicial staff.

110. There is one further point made by the Acting Chief Justice in connection with the proposed reduction of the judiciary, namely that of the leave arrangements to be made in his absence or that of the Attorney-General. The Attorney-General is clearly the officer to act as Chief Justice when the Judge is away. The objection to this is that the Attorney-General, when so acting may be called upon to rule on decrees of his own drafting or to deal with criminal appeals in cases with which he had to deal previously in another capacity. Also, the Attorney-General would be absent from the Executive Council for a considerable part of his time, first, during his own leave and, secondly, while acting as Chief Justice. The former objection is more theoretical than practical and while the arrangement is not, of course, ideal, it is a makeshift to which many small Colonies have to resort in similar circumstances.

111. To sum up, there is admittedly insufficient work for two judges at present, the sole justification for the retention of the present establishment being the requirements of the Court of Appeal and of the circuits in Pemba, and possibly local leave. The difficulty can be overcome to some extent by confining the attendance of the Zanzibar judge to Court of Appeal sessions when held in Zanzibar or on the coast, and by utilizing the vacation for local leave and, perhaps, for visits to Pemba. Time for administrative work can be made by extending the civil jurisdiction of magistrates and thus relieving the High Court of some cases and work can be lightened by revision of the laws.

112. I recommend, therefore, (1) that the post of Chief Justice, when vacant, be not filled. The post should continue to be shown in the estimates but no financial provision need be made for it except in respect of acting allowance, (2) that the present Puisne Judge continue to act indefinitely as Chief Justice, a report being made on the success, or otherwise, of this arrangement at the end of two years, (3) that the senior magistrate be gazetted as acting Puisne Judge when the Acting Chief Justice is away on the Court of Appeal or in Pemba, (4) that the Attorney-General should act as the Chief Justice when necessity arises, (5) that the Acting Chief Justice and the Attorney-General should not be on leave together. The saving so effected would amount to £1,600 a year in respect of salary, less £125 acting allowance to the Judge acting as Chief Justice, but *plus* substantial savings in housing, leave and passages.

113. Of the three magistrates and the Registrar, one, at present, is almost invariably acting as Puisne Judge or Attorney-General, one is stationed in Zanzibar and one is on leave. As stated above, the administration is at the moment providing a magistrate for Pemba. After discussion with the Acting Chief Justice and others with legal experience, I consider that the requirements of the Protectorate are a magistrate in Zanzibar town to deal with the criminal and part of the civil work, a registrar-magistrate to deal with the remainder of the civil work and with the High Court registry, and a magistrate in Pemba. A proposal was made by the Acting Chief Justice, which I endorse, whereby the Registrar should take over part of the civil work of the Magistrate's Court in Zanzibar and, at the same time, should continue to act as registrar. He would, however, while remaining Official Assignee, have to be relieved of a good part of the bankruptcy work with which he now deals. For this purpose the services of the Examiner of Accounts for estate duty in the Administrator-General's Department, who is an Indian pleader, should be made available in the High Court where he would be given the status of Deputy Official Assignee. This would enable him to dispose of many of the bankruptcy cases, of which only 38 were brought before the Court in 1930. For the rest of his time he would continue to assist in estate duty work. This arrangement, viz., one magistrate and a registrar-magistrate in Zanzibar and one magistrate in Pemba, would leave one magistrate available to relieve these three officers and to relieve the Attorney-General twice over, i.e., when he himself was on leave or was acting for the Chief Justice. This would hardly suffice and it would be necessary to call on some other Department for a relief for one period of leave in a tour of service. The staff which I have proposed for the Provincial Administration may be sufficiently generous to admit of this being done without inconvenience, but as an alternative, and a preferable one, a relief for the Registrar or for a Magistrate could be provided from the Administrator-General's Department, in the person of an Assistant Administrator-General, so long as the work of that Department remains on its present basis. If, as I have suggested elsewhere, an officer of that Department is in future appointed as Town Clerk or Executive Officer of the Municipality and the staff of the Department is reduced accordingly, it would not be possible for it to provide a relief and the judiciary would fall back on the Administration. If, on the other hand, it is established after a fair trial that a staff of three magistrates is insufficient and that the Department must be strengthened, I recommend that this should be effected by the appointment of an additional magistrate rather than by the restoration of the post of Puisne Judge; but until the administrative staff is reduced by casualties to the establishment which I have recommended, the services of an Administrative Officer should be placed at the disposal of the judiciary, as it would be uneconomical to appoint a new resident magistrate so long as the administrative staff was in excess of requirements.

114. So far as other staff is concerned, the Acting Chief Justice proposes to reduce the number of Kathis by three, leaving two for Zanzibar and two for Pemba. This will result in a saving of approximately £600 per annum. He also proposes to restrict their jurisdiction to matters of Muhammadan law, i.e., inheritance, divorce, marriage, etc., as in Kenya, taking away the civil jurisdiction which they now possess up to a maximum of Rs. 500 and with which they are inadequately qualified to deal. If, however, such civil work as they now perform is transferred to the magistrates, the latter may be over-burdened and an appeal may be made for further European staff to deal with the excess. This must be guarded against and a share of the civil work, particularly in undisputed cases, might, if necessary, be re-assigned to District Officers unless it is possible to transfer the work to the Native District Courts. The former get useful experience in hearing small civil cases and they are not at present so over-burdened with Court work that they cannot find time to hear a reasonable number of petty civil suits. The position may be different if an active policy is adopted in connection with native development and land settlement. In that case District Officers may have their hands full and not be in a position to take over more case work.

115. The clerical and menial staff of the Judicial Department appears to be altogether excessive, as the following comparison between those of Zanzibar, Tanganyika and Uganda will show:—

	<i>Zanzibar.</i>	<i>Tanganyika.</i>	<i>Uganda.*</i>
	25 Clerks.	25 Clerks.	1 European Clerk.
	9 Junior Clerks.	6 African Interpreters.	18 Clerks.
	41 Menials.	14 Process Servers.	12 African Interpreters.
			12 Process Servers.
Annual cost of clerical and menial staff ..	£5,930.	£5,416.	£5,770.

\* Includes the clerical staff of the Administrator-General.

The Acting Chief Justice has promised, however, to go into this matter and to see what economies can be effected. It has also been examined by the Committee on the clerical and menial staff.

## LEGAL.

116. The Legal Department calls for no particular comment. The Attorney-General has less work than his brothers in Kenya and Tanganyika but, on the other hand, the work in Zanzibar is complicated by a special system of law, and as his professional assistance is limited to one Parsee advocate compared with four Crown Counsel in Kenya and three in Tanganyika, he has to accept responsibility for the whole of the legal work. In the section on the judiciary I have suggested that the Attorney-General should act as Chief Justice when necessity arises, although this will involve absence from his substantive post not only during his own leave but during the leave of the Acting Chief Justice. The economy which can be effected in the Judicial Department by the arrangements which I have recommended fully compensates for the slight inconvenience which will be caused thereby. The Attorney-General, when on leave or acting as Chief Justice, should be relieved by the senior magistrate, although if for any reason this is impracticable, he could be relieved, as has happened in the past, by the Administrator-General. The objection to that arrangement, however, is the professional one that the Administrator-General is a solicitor and not a barrister and there are difficulties in the leader of the Bar for the time being being a solicitor when private practitioners include barristers of many years' standing.

## ADMINISTRATOR-GENERAL.

117. The work of the Administrator-General falls mainly into two divisions, firstly, the administration of deceased estates and the work of public Trustee, and, secondly, in connection with land in his capacity as Land Officer and Registrar of Documents.

118. As regards the former branch of the work, the object of the Department is to provide the public with a safe, inexpensive and convenient service at little more than cost price. This side of the work is definitely not intended to be revenue earning and the fees are fixed so as to cover expenses and little more. It is doubtful if this fact is appreciated by all members of the public some of whom, particularly the Arabs, complained that the Department was over-staffed and that considerable economies could be effected in it. Any reduction in staff and other charges involving a curtailment of services would result in a loss of revenue by reduction of fees which, it may be stated, are kept on a competitive basis so that individuals may be free to employ other agencies if they feel disposed to do so. The criticism directed at this side of the Administrator-General's activities emanates, I am informed, mainly from persons on whose properties the Department has lent money on mortgage and who resent demands for the prompt payment of interest. I am satisfied that the administration of estates and Public Trustee work is efficiently run and, as stated above, any reduction in expenditure would be balanced by a reduction of income.

119. The other main branch of the work appears to be somewhat incongruous for an Administrator-General including, as it does, the registration of documents, the collection of rentals on various Government properties, the assessment of properties for sanitary and lighting rates, town planning, compulsory acquisition of land, etc. Of these functions many are municipal and, with the establishment of a municipal organisation, would normally be transferred to that body. Had it not been for the necessity of absorbing the excess of administrative officers I should have recommended the transfer of an Assistant Administrator-General to be the Executive Officer or Town Clerk of the proposed Municipality of Zanzibar, and with him, the transfer to the municipal offices of most of the land work now performed by the Administrator-General's Department. In view, however, of the need for absorbing surplus administrative staff this alternative is hardly feasible at present. The possibility should however be borne in mind, more especially if as suggested in paragraph 409, the surplus officers are required for settlement work in connection with a cadastral survey, particularly as, when the municipality develops, it will be advantageous to have an executive officer with legal qualifications. In that case the Administrator-General's Department could be reduced by one European, but it would not then be possible for it to afford a relief to the High Court as suggested in the chapter dealing with the Judicial Department.

120. Time might be saved by restricting registration of documents to certain days in the week, as no great inconvenience would be caused to the public if documents could be presented only at certain times or on certain days.

121. At present the arrangement whereby house owners can appeal annually against the assessment placed on their premises for municipal rates involves much of the time of the departmental staff and of the Assessment Committee, and in 1931 there were no less than 432 appeals which consumed over 500 working hours. It should suffice to allow persons who feel aggrieved at the assessment to appeal triennially instead of yearly.

122. Another economy in time would be the collection quarterly, instead of monthly, of the small rents for native huts on Government land, of which there are some 1,200. I was informed that a



departure from present practice would make it difficult for natives to pay, but seeing that mainland natives are called upon to pay hut tax of a greater amount in one lump sum, and ground rents in half-yearly or quarterly instalments, the objection need not be taken very seriously.

123. The time saved by these expedients should permit the staff to deal with the registration of discharges of mortgages which is not now compulsory, but should be made so. Compulsory registration should not only be revenue earning by means of a small stamp duty, but would clear and complete the record of any property. The registration of the new chattel mortgages is also likely to provide additional work.

124. The registration branch should extend its index of documents so as to show not only the seller but the buyer of any estate. A separate index of this kind would assist in preventing evasion of estate duty which, in the majority of cases, is assessed on the value of the property declared by the executor in an affidavit, by enabling the assessing officer to check the statements made in the affidavits. An annual return should also be prepared of land sold and mortgaged, with the area—if possible—or the number of trees and the price. The transfer should be analysed to show the gain or loss, of the agricultural classes.

125. Apart from these two main branches, the Department is charged with other duties such as the assessment of estate duty, registration of marriages, and wakf commission which call for no comment.

#### POLICE.

126. For practical purposes the present Police Force dates from 1906 when, following a strike by the members of the previous organisation, a new force, largely composed of mainlanders, was recruited and placed under proper supervision and control. The present Force became an armed force on the withdrawal of the K.A.R. in 1923 and is trained largely on military lines. The authorised establishment consists of a Commandant and an Assistant Commandant, four Superintendents, one European Instructor (who is shortly to be retrenched), 18 Inspectors (Inspectors include Assistant and Sub-Assistant Inspectors), 590 rank and file, together with a clerical and menial staff. Of these, 4 Inspectors and 104 rank and file are stationed in Pemba, the whole of the remainder, excluding one Inspector, and 68 rank and file who are posted to out-stations in Zanzibar island, being stationed in the town of Zanzibar. The strength of the force given above includes the Criminal Investigation branch, of which a Superintendent is in charge, assisted by 4 Inspectors, 3 Indian detectives and 19 native detectives.

The cost of the Police Force in 1932, including the C.I.D. and the Fire Brigade, is estimated to be £28,199 of which £23,340 is for personal emoluments and £4,859 for other charges.

127. The force is recruited mainly from the mainland tribes, and, of the total strength, only just over 13 per cent. of the rank and file are locally born. This method of recruitment is expensive in that it entails the grant of lengthy leave at intervals and of heavy expenditure on passages, especially in the case of men whose homes are in Nyasaland and Northern Rhodesia, whence almost 25% of the force is drawn. It is clearly desirable that some proportion of the force should not be subject to local influences, but the present proportion of outsiders is altogether too high. The Commandant, however, hopes to reduce the number of mainlanders in the force and is aiming at a proportion of sixty per cent. of locally born candidates. In the case of the remaining forty per cent. who will be recruited from the mainland, efforts should be made to obtain men from Tanganyika and Kenya, the more distant territories, to which the cost of passages is heavy, being discarded as recruiting grounds. One result of the great preponderance of outsiders in the Force is that, being somewhat handicapped in the matter of language and knowledge of local customs, etc., and being illiterate, they are not fitted for the investigation of crime in the same way as locally born natives and, in consequence, can be little used in one of the main functions of a police force. All the detective work in the town has, therefore, to be investigated by the C.I.D. which also takes on any important cases outside the township.

The cases investigated by the Police in recent years have been as follows :—

	1929.	1930.	1931.
Number of serious offences, excluding housebreaking and greivous hurt ... ..	44	56	41
Housebreaking ... ..	271	263	247
Greivous hurt and causing hurt with dangerous weapon	73	88	74
Minor offences, excluding traffic offences ... ..	1,820	1,729	1,451
Traffic offences ... ..	212	382	487

129. It will be seen that serious crime, apart from housebreaking, is almost negligible and that crime, generally, is steadily decreasing. Housebreaking, which continues to be the most prevalent offence, is invariably most difficult to detect, however efficient or numerous a police force, the percentage of convictions obtained to the total of cases investigated being no more than 22, 12, and 17 for 1929, 1930 and 1931 respectively.

There are occasional small outbreaks of gang housebreaking classified as dacoity.

The other principal form of serious crime is grievous hurt or causing hurt with dangerous weapons, the majority of these cases arising among the Manga Arabs who are hot-tempered and draw their knives on slight provocation. With these exceptions the community is extremely law abiding.

130. The police strength, in proportion to the population, is 1 to 394 in the whole Protectorate, 1 to 283 in Zanzibar island and 1 to 883 in Pemba. In Palestine it is 1 to 620, in the Punjab 1 to 1,000 and in the United Provinces 1 to 1,400. Judged by ordinary standards and by the small volume of crime, the strength of the force is, therefore, high, even allowing for the special conditions of a port visited by a large amount of shipping. In my opinion it could be substantially reduced without prejudice to law and order and without any real risk of appreciable increase in serious crime, although a proportion of trivial offences, of which, in any case, great numbers must go undetected in the country areas, might go unpunished.

131. Although unofficial memoranda recommended a reduction in the number of European officers, it was somewhat surprising to find that none suggested any reduction in the native rank and file, the general view being that the force served a dual purpose, namely, as a local defence as well as a police force.

The explanation appears to be that when the present force succeeded the K.A.R. detachment, the tradition that an armed force was necessary in Zanzibar was perpetuated. If the maintenance of a large armed force in Zanzibar is required as a protection against foreign aggression or for other Imperial purposes, I am not in a position to criticise, but, assuming these considerations to be absent, I will base my observations on the force in the light of the two local purposes for which it is maintained.

132. While, in the past, there has been sporadic rioting between the various sections of the immigrant Arabs, resulting in a number of casualties, an efficient scheme has now been drawn up by the present Commandant whereby some twenty rifles or more can be rushed to any part of the town at short notice and, in his view, no local riot is conceivable which could not be quelled by 30 or 40 armed men. The existence of a large force merely for defence purposes is, therefore, unnecessary.

133. The other function is the normal one of the prevention and detection of crime, with which are combined ordinary police duties, viz., beats, traffic control, immigration, issue of firearm licences, etc., while the local fire brigade is also found from the police. Apart from beats in Zanzibar town, patrols are made in the country districts by small detachments stationed in police posts. These patrols make regular rounds through the villages two or three times a week, and I was informed that their withdrawal or reduction would probably lead to an increase in crime, particularly housebreaking, and that the presence of police has, at any rate, some moral effect.

Special stress was laid on an outbreak of dacoity which caused considerable alarm in part of Zanzibar island in 1926 and is said to have caused people to leave the shambas and come into the town until the police succeeded in coping with it. The outbreak was, in fact, of a very mild type judged by ordinary standards and did not present a problem beyond the capacity of the force which I propose. 29 true cases were reported, 27 of which were worked out. It is noticeable that no use has ever been made of the preventive sections of the Code of Criminal Procedure.

Very few offences are reported by the patrols, those which come to light being of the most minor character and usually road offences. It is a matter of opinion whether the existence of these isolated detachments does, in fact, result in any diminution of crime and whether the presence of patrols really deters the criminally-minded from housebreaking, since, the movements of the patrols being regular, no professional criminal would have any difficulty in eluding them. If money is available to meet the cost of these detachments their retention may be desirable: but the question really is whether the money expended on the police could not be used more advantageously for other purposes. In no district in India nor on the mainland is it possible to maintain so close a surveillance over the population and I doubt whether the natives themselves really welcome the existence of a system which, unless closely supervised, is likely to lead to abuses and to officious interference. It is, in short, a question of policy for the local government to consider whether the maintenance of a large police force is more beneficial to the community than an extension of medical and educational services which could, in part, be financed by economies in police administration. So far as a visitor can judge, adequate provision could be made against any disorders and for the detection of crime with a force of two-thirds the strength of that which is now maintained, and the force might at least be reduced to three quarters of its present strength as opportunity offers. Pemba, especially, affords scope for retrenchment as, in that island where serious crime is very rare, there are stationed over 100 police, or about three times the number which would be allocated to a district on the mainland with a larger population.

134. So far as the European staff are concerned, economy could be effected by abolishing the post of Assistant Commandant, who is virtually a relieving officer for the Commandant, and if the numbers of the rank and file are reduced one post of Superintendent could possibly be suppressed in addition, by re-allocating among three officers the work now performed by four at the Depot, C.I.D., Zanzibar town headquarters and the Prison. This should not be difficult, as, recently, the Superintendent-in-Charge of the Depot also took over the Prisons during the absence on leave of the Superintendent-in-Charge of the Gaol, though, as a permanent arrangement, the work, with the force at its present strength, was admittedly too much for one man. If, however, there are insuperable objections to the reduction of the rank and file and, if, as a result, four Superintendents are still required, it should at least be possible to transfer to the Police the issue of all permits (other than passports) issued to natives travelling to the mainland, a work which is now carried out by the Provincial Commissioner's Office. This change would be desirable whatever the fate of the staff.

135. As regards the Asiatic establishment, comprising inspectors and clerical staff, reductions depend upon the extent to which the rank and file are reduced, but in any case the Asiatic staff of the C.I.D. would appear to afford scope for economy. The offices of Paymaster and Quartermaster should also be combined, irrespective of whether the force remains at its present level or not.

136. So far as the pay of the African rank and file is concerned, no reduction is possible, seeing that they are paid lower than the police of the mainland and that their monthly wage barely suffices to meet the necessities of life. Nevertheless, as the rates now in force were deemed to be adequate at a time when the cost of native foodstuffs was higher than it is now, no special addition to their pay seems called for, especially as the Commandant proposes to introduce a system of good conduct allowances which, if it involves some small extra expenditure, should make for increased efficiency and enable those who profit by them to be more comfortably off.

137. A proposal to incur extraordinary expenditure on rebuilding the old lines at the Ziwani Depot in Zanzibar town came to my notice, but, after an inspection of the lines, which compare favourably, I am told, with those provided for the Police or the K.A.R. in the mainland territories, I can see no urgent need for new quarters. The upkeep of the present lines is certainly somewhat expensive but the building scheme which has been drawn up involves an outlay of nearly £12,000, which the Protectorate clearly cannot afford at present. The recently built accommodation is excellent, but cost £60 a quarter, a high standard for Africa. Similarly in some of the outposts the standard of accommodation is exceptionally high and the claim that the quarters are the best in Africa is, probably, fully justified. If, in future, new quarters are required for detachments a more modest scale of accommodation would well suffice.

In Chake Chake in Pemba a number of police are quartered in rented houses in the town, as the lines are not large enough to house the whole detachment. This is not only expensive but undesirable, and the Chake Chake staff should be marked down for early reduction so as to enable all the police to be accommodated in the quarters which were built for them. This should coincide with the closing of Chake as an administrative headquarters.

138. To summarize, I would reiterate that the retention of the police at their present level is a matter of policy, and that while in my opinion the force could safely be reduced by one-quarter or one-third, it is for the local Government to decide whether it is preferable to maintain an expensive force to meet every contingency or rather to adopt a more modest standard and to employ subsequent savings in other directions. But, in any case, it must be left to the Commandant to devise how best reductions, if decided upon, are effected, as it is impossible, without a detailed and expert knowledge of the workings of the force, to state precisely how the organization should be adapted to meet a new situation. The elimination of the Assistant Commandant, the Chief Inspector and either the Pay or Quartermaster, which should be proceeded with, whether or not a reduction is made in the rank and file, would produce a saving of £1,715.

139. If, in addition, a general reduction of one-quarter can be made in the Asiatic and African ranks and if, in consequence, one Superintendent can be retrenched, a further saving of £4,175 would ensue in personal emoluments alone, to which can be added a figure of £1,000 as a conservative estimate of savings on account of uniforms and equipment, stores, passages and transport expenses. A reduction on this scale could not, of course, be effected immediately and, in my estimate of the general savings which can be made if the recommendations in this report are adopted, I have allowed a period of over two years, or until the end of 1934, over which the establishment should be reduced.

140. I should conclude these remarks by stating that, from what I saw of the force, the discipline, conduct and efficiency appears to be very good and reflects great credit on its present energetic Commandant who has, I understand, done much to improve affairs which, on his arrival, were not altogether satisfactory. I have nowhere seen clearer evidence of a genuine interest in and care for the welfare of all ranks of a police force.

141. Other sub-heads of the Police Estimates not included in the above, apart from Prisons to which I refer below, are the Mental Hospital, which calls for no comment, and His Highness the Sultan's band. To the latter, which costs about £1,600 a year, a sentimental value is attached and, for this reason, the band should remain, unless and until dire necessity arises to alter the situation.

#### PRISONS.

142. The Prisons are under the immediate control of a Superintendent but the Commandant of Police is also Commandant of Prisons. The authorised establishment of warders is 61 and the daily average of prisoners at the various prisons in 1930 was as follows :—

Central Prison, Zanzibar	...	...	...	...	...	...	...	...	137
Mkokotoni	...	...	...	...	...	...	...	...	6
Wete	...	...	...	...	...	...	...	...	18
Chake Chake	...	...	...	...	...	...	...	...	20
Mkoani	...	...	...	...	...	...	...	...	16
TOTAL									197

The average number of prisoners to one warder throughout the Protectorate was, therefore, 3.23.

143. The establishment of a number of small prisons does not make for economy in administration and the Commandant favours the concentration of prisoners in two Central Prisons, one in Zanzibar which is already existent, and the other in Pemba. But there is no gaol in Pemba which is large enough to accommodate so many as 50 or 60 prisoners, though, if the stations in that island are reduced to two, as recommended, the Chake Chake prison might be closed and the prisoners distributed between Wete and Mkoani. In Zanzibar island there is no justification for the retention of the prison at Mkokotoni, or at Chwake which is not included in the list of prisons shown in the Blue Book for 1930. At both these places, and in Pemba, the necessity for maintaining small gaols was defended on the ground that they were the only source of sanitary labour and that, if they were abolished, it would be necessary to engage and pay labour to keep the townships in a sanitary condition. It was also stated that the local natives will not perform the work of emptying privies and that it would be difficult, though not impossible, to recruit mainlanders for sweeper's duties. On occasions it seems that the population of the country gaols is insufficient to keep the townships clean, and even, at times, falls below the number of warders. Prisoners are, therefore, actually transferred from the Central Prison to reinforce the local prisons.

144. I doubt if any economy, except on the Prisons vote, would be effected by closing down these small gaols, since the saving on warders would be swallowed up by the wages of additional sanitary labourers engaged in lieu of prisoners; but the present practice is open to objection and the centralisation of the prison population should be aimed at. If a sanitary gang were employed it should not spend part of its time, as the prison gangs now do in certain stations, in transporting water to the quarters of officers and clerks, except on payment by the officials concerned.

145. The prisons were at one time supervised by a Goan, but owing to various complaints by the prisoners he was replaced in 1928 by a European gaoler, a post which was, later, elevated to that of a Superintendent's. I have suggested in the Chapter on the Police that it may be possible to combine the duties of Superintendent-in-Charge of the Depot with that of Superintendent of Prisons, but in that event it would probably be necessary to engage an experienced member of the Indian Prisons Service to assist him. In any case the Superintendent, whose salary is £480-£600, is, compared with other places, highly paid considering the population of the Central Prison.

#### MEDICAL AND SANITATION.

146. The medical services rendered to the community are the last of all which should be cut down, so long as funds suffice to provide them. They are efficiently run and the hospital statistics, as well as those of attendance at the native dispensaries, show that they are highly appreciated by the native population. In importance they may fairly claim priority over all other social services, even including education, as if the body is not healthy there can be little progress in mental development, though, on the other hand, some degree of education is necessary for adequate appreciation of medical or sanitary benefits. This is particularly true of a country where a large percentage of the inhabitants are riddled with malaria, ankylostomiasis, yaws and venereal disease, and the missions in Africa long ago discovered that medical attention must accompany, if not precede, attempts to improve the mental and moral outlook of a backward population.

This does not imply, however, that economies cannot be effected in the administration of medical services to which this Section must be devoted.

147. The total cost of the Department in Personal Emoluments and Other Charges is close on seven lakhs, of which just over one lakh is accounted for by the salaries of nine European Medical Officers. This latter figure is due largely to the fact that those now in the Protectorate are of some years seniority, and of the nine now serving no less than four have reached their maximum salary of £1,000 a year. With a more junior personnel the total salaries of medical officers would be much smaller, but until casualties occur or transfers take place the emoluments of this part of the staff will show an annual increase.

There are, however, certain general considerations which suggest themselves with reference both to the existing medical organization and to the schemes which have been submitted for the extension of medical facilities. As regards the present organization, a feature which strikes an outside observer somewhat forcibly is the large proportion of the European medical staff which is concentrated at Headquarters, while considerable areas in both islands, but more especially along their east coasts, are very deficient in medical facilities. An illustration is afforded by the figures in Appendix VIII showing the small proportion of the medical expenditure which is devoted to work in Pemba.

This should not be taken as implying that the medical officers at headquarters are not fully employed, and some at any rate have heavy work, more especially those connected with the Central Hospital. It does, however, suggest a certain want of balance in the medical provision for the different areas, and the schemes for extension which are intended to remedy this are mainly based on a further strengthening of the very expensive European medical staff.

The problem is not a new one, or one confined to Zanzibar, and the only satisfactory method of dealing with it on economical lines, and of providing the essential element of doctors resident in out-stations, appears to be by the gradual development of a subordinate medical service recruited from the local inhabitants and with the qualifications corresponding to those of similar services in other countries. With the development of such a service, European medical officers would ultimately be restricted to certain specialised posts and to a supervising and inspecting staff. Except to some extent in Uganda at the Mulago Medical School, little progress seems to have been made in this direction in the Central African Colonies, while the problem is essentially one of a type which should be dealt with by the co-operation of all the territories concerned. On the other hand, the Kitchener Medical School in Khartoum and the Central Medical School in Suva in the Fiji Islands afford excellent examples of what can be done by far-sighted and persistent efforts in the direction of gradually building up a subordinate medical service.

The Sudan Medical Staff for 1930 included 14 Sudanese medical officers, and there were 29 students in the four years of the Kitchener Medical School, while there were 35 students in the three years of the Central Medical School in Suva.

Zanzibar has, it is true, sent two students to the Uganda Medical School, but there is, so far, no real scheme for the formation of a local subordinate medical service, and the inadequate facilities for a grounding in general education will make it very difficult for some time to come to provide suitable candidates for a training at Mulago.

This is, however, not an adequate reason for the indefinite postponement of such a scheme, and the proposed new secondary school should assist in providing candidates with a better educational grounding. But in any case the formation of such a Service from local materials must be a work of many years, and unless progress is to be suspended, or very heavy expense incurred, an intermediate stage has to be provided for. In the Sudan this has been done by the employment of Syrian medical officers, of whom there were 41 in 1930 in addition to the 14 Sudanese, as against 27 European Medical and Senior Medical Inspectors. The general standard of their work appears to be high, judging for example from the very successful campaign against sleeping sickness, which was, I understand, mainly carried out through their agency.

It would be very undesirable to introduce further racial complications into Zanzibar, and the natural intermediate stage would be an extension of the employment of Indian Assistant Surgeons or Sub-Assistant Surgeons.

148. To turn now to specific recommendations in regard to the existing establishment.

The Director appears to be overburdened by a mass of routine office work, and cannot find adequate opportunities for inspections. This, however, might be remedied by a wider delegation of power to subordinates and by a greater concentration on essentials as opposed to routine work. A considerable relief would, in particular, be afforded if it was possible to reduce to a scale commensurate with that of the Protectorate the Annual Report which is prepared for the Secretary of State and for the Colonial Advisory Medical Committee. The preparation of annual medical reports on the elaborate model laid down by that Committee involves a great deal of work, not only on the part of the Director but of the whole of the staff whether in headquarters or in out-stations.

In a small administration with a clerical staff possessing no technical knowledge and poor general qualifications, the superior medical officers state that they are obliged to devote a great deal of time to

this statistical work to the detriment of professional work of greater humanitarian value. So long, however, as the preparation of these detailed statistics is insisted on, the Department feels bound to comply with directions.

149. Apart from the reports which have to be prepared for superior authorities, the amount of organising and administrative work falling on the head of a department is roughly in proportion to the strength of the staff and the number of its institutions. A comparison of the figures under these heads for Zanzibar with those for the larger territories points clearly to the conclusion that the Medical Department is not an exception to the general principle that, in an administration of this size, there is no need for the employment of two officers of administrative rank. With a Director relieved as far as possible of routine work there is no adequate scope for the abilities of a Deputy Director in charge of sanitary services. He is, in fact, essentially a leave reserve and in a department with a number of capable European officers this is not an adequate reason for an expensive extra post. I understand that importance is attached by advisers in England to the appointment of a separate Deputy for Sanitary Services, but while this is fully justified in a large Colony, the division of labour is certainly not required in Zanzibar and, when the present holder retires, the post could be abolished without detriment to the efficient running of the sanitation of the islands.

150. As regards the staff other than that employed on direction, it will be convenient to deal seriatim with the medical, sanitation and veterinary branches of the department.

151. Apart from what has been said in the previous paragraphs, I have no criticisms to offer on the medical side of the work. The Pathologist must presumably remain unless, at some time in the future, it is possible to obtain specialist advice from the mainland territories, a point to which I refer in general terms in Chapter VII. The present arrangement whereby part time of a dental surgeon from Tanganyika is at the disposal of the Government is economical. The appointment of Account and Storekeeper is in abeyance and should remain so unless the Committee on office organisation can suggest any equivalent reduction in staff.

152. I was much struck by the good work performed by the local dispensaries, which are staffed by natives who are most moderately paid and who seem to take a great interest in their work, and there is no doubt that an extension of these facilities would be welcomed by the population. I noticed, however, at most dispensaries which I visited, that a large part of the dispenser's time was taken up in the compilation of sanitary statistics of the neighbouring villages, which seemed to be devoid of practical value, though the main object in sending a dispenser to collect them is to bring him in touch with the villager and, by teaching and persuasion, to encourage more sanitary habits of life. It seems possible that, for some time to come, the dispensers could be better employed in visiting other centres in the neighbourhood on their ordinary duty of attending the sick and taking such opportunities as presented themselves for sanitary propaganda rather than on the collection of statistics.

153. I enquired into the possibility of levying fees for treatment given to natives at hospitals and dispensaries, but it is doubtful if a charge would be justifiable or practicable, although the Missions do make a charge to native patients. The principal difficulty is the collection of fees. At the Missions it is done by the Europeans in charge, but unless the collections were supervised by Europeans—and this could not be done in village dispensaries—fees would be misappropriated.

154. The sanitation work in Zanzibar itself is expensive, costing not far short of £10,000 a year, but this is probably unavoidable as the town is a maze of alley-ways, and the density of population is great. Europeans, Indians and natives live side by side: business premises and residences are intermingled and opportunities for mosquito breeding are legion. Great improvements have been made in recent years, and the total cost of sanitary work does not appear to be high in comparison with other places. The amount of labour employed appears, at first sight, to be excessive, but it is stated that the very narrow alleys make labour-saving appliances uneconomical. Some reduction does, however, seem possible in the mosquito and rat brigades, and I recommend that they be reduced by one quarter and one half respectively.

155. The sanitary work in Pemba, on the other hand, is expensive, costing, on an average, £800 for each of the three small townships, apart from the salary of the European Sanitary Inspector in sanitary charge of the island. In addition to the scavenging gangs, prison labour is, or should be available in at least two of the towns for grass clearing and bush-cutting. Moreover, the control attempted, even in these small townships, seems too elaborate and efforts are being made to set up European standards for primitive communities which, until they are educated up to them, are likely to consider them unreasonable and vexatious. Unless the attainment of these standards is to be a definite policy the services of a special European Superintendent for Pemba seem to be unnecessary and the number of sanitary inspectors and of learners should be capable of reduction. Medical and District officers could maintain a general control over sanitation.

156. The Protectorate maintains a Quarantine Station, to the upkeep of which Kenya, Tanganyika and Uganda subscribe, and, generally speaking, the Zanzibar Government obtains a necessary service cheaply. No vessels have been quarantined since January, 1931, but there is always the possibility of small pox developing on the steamers running between Bombay and Durban, and on one occasion, at least, there were no less than three steamers in quarantine. The Station must be kept up as a precautionary measure and, except for some small reduction in the number of native caretakers on Quarantine Island, no economies are possible. If they were, it would be necessary to pass on the greater part of any savings to the subscribing Governments. There is no need, however, for any lavish capital expenditure—which falls on Zanzibar alone—on buildings and those recently erected for the accommodation of quarantined passengers are on an unnecessarily luxurious scale, in conformity with the very high standard which the Protectorate has set up for all its public buildings.

157. An activity not usually associated with a Medical Department is the veterinary work of the island, which is carried out by two veterinary officers, one assistant and two cadets, at a total cost of £960 a year in personal emoluments. The staff is entirely non-European. Their principal duties are the supervision of the landing and quarantine of slaughter cattle and livestock from the mainland (of which about 16,000, mainly goats and sheep, are imported annually), of the slaughter house, the inspection of meat, and the control of the Government Dairies which were established with a view to providing a pure milk supply for the town. Their activities are, in fact, almost entirely municipal in character. One veterinary cadet is posted to Pemba but appears to have no very definite duties. Zanzibar is fortunate, by reason of its geographical position, in freedom from outbreaks of animal disease, though epidemics of rinderpest, introduced, probably, by imported cattle, have occurred from time to time. The staff appears to be excessive if their duties, as now conceived, are confined to what is essential. If they are relieved of the work in connection with the Government Stables and of attending privately owned animals, it should suffice to have one veterinary officer and one assistant, with consequent savings of about £500 a year. In the event of any serious epidemic there should be no difficulty in borrowing a veterinary officer, with native staff, from the mainland, and there is no necessity for embarking on any ambitious scheme, necessitating a large staff, for utilising the animal resources of the islands with a view to export. Kenya, with its large cattle population and dairy farms, has advantages in this respect which Zanzibar cannot hope to obtain, and is likely to remain the principal source of supplies to ships, etc.

The existing arrangement by which veterinary work is under the control of the Medical Department is an anomalous one but is probably justified by the special local conditions.

As regards possible developments of veterinary work beyond the neighbourhood of the town, I have mentioned certain proposals in the note on the Agricultural department. Should they materialize the Medical Department will doubtless give its full co-operation.

158. The finances of the Government Dairy require overhauling with a view to the establishment being more self-supporting, as the total annual income from fees is only about £350 to meet both the expenses of supervision and interest on the capital of £10,000 spent to date.

159. The special expenditure of the Department in 1932 includes Rs. 8,500 for tuberculosis investigation and treatment, which represents, mainly, the balance of the salary of the specialist appointed to get in touch with tuberculosis cases in Zanzibar. It is understood that a serious view of the position with regard to tuberculosis in the Protectorate is taken by the specialist advisers, but any really effective measures for coping with this one of several major diseases will require heavy expenditure on additional hospital accommodation, and the practical question is whether the Protectorate can find the money which will be required for recurrent expenses or whether this, in common with the extension of social services in other directions, may not have to wait until better times. The mere fact that assistance from the Colonial Development Fund may be available and that action is advocated by specialists should not lead the Government to commit itself to any scheme involving large recurrent expenditure without most careful consideration of the comparative value to the Protectorate of the scheme as a whole, as compared with the benefits which could be derived from spending the money in some other directions.

#### EDUCATION.

160. Education in Zanzibar presents a particularly complex problem because of the agglomeration of races and the special difficulties arising from the insistent desire among the Arab population for intensive instruction in Arabic and for adequate religious teaching. As the report of the Phelps Stokes Committee states, there is "no stimulus of national aspirations or even of the normal African desire for education" except among the immigrant Indian and African communities. There is no uniting bond except Islam, and that is considerably affected among the mass of the population by the universally prevalent belief in magic and witchcraft. Pemba, in particular, has a widespread reputation

as a centre of the magical cults and the minds of all the inhabitants, including even a large proportion of the Arabs, are coloured by these beliefs and inhibitions. Superstitions hamper prosperity, physique and mental development. Racial, class and caste distinctions have crystallized into stagnation.

161. The most striking feature in the situation, as compared with that in other parts of Africa, is the entire want of success which has attended the educational efforts of Missionary bodies except with regard to African immigrants—adults more especially—and the similar class of freed slaves. Missionary organizations have a long history in Zanzibar and many attempts have been made at Missionary Schools, but with an entire want of success. The latest attempt was through the agency of the Roman Catholic Mission in 1924 but, notwithstanding the approval of His Highness the Sultan, and official support, not a single pupil was obtained. If the educational problem can be solved in Zanzibar it can be solved anywhere and, so far as can be seen, the solution must come through the agency of Government Schools and not through that of Missionary societies. The educational organization must, therefore, necessarily be much more expensive than in most parts of Africa.

162. The present position is that the Government educational efforts are practically confined to the town of Zanzibar. In that town the schools for Arabs and Africans include a Central School with 444 pupils teaching up to Standard VI, a Teachers' Training School with 37 pupils and a three year course, a Technical School with 46 pupils and departments for tailoring, carpentry and mechanical training, a Commercial School with 22 pupils, nearly all Indians, and the Universities' Mission St. Paul's Middle School with about 60 African pupils, which receives no subsidy from Government. There is, in addition, a small Government feeder school with 46 pupils teaching up to Sub-Standard II. The teaching of Arab and Swahili girls and the training of girl teachers is carried on in the Government Arab Girls' School.

163. Indian education is provided for in the non-communal Euan Smith Madressa with 439 boys teaching up to Standard VI, the Ismailia boys' school with 328 pupils teaching to Standard VIII, the Bohora (Muhammadiya) school with 186 boys and 145 girls teaching up to Standard V, the Ismailia girls' school with 278 pupils, and the Hindu Free girls' school teaching up to Standard V. A special school for Goans has 46 boys and 85 girls.

164. Practically the whole of the Indian and Goan population of school-going age is receiving education; out of 526 Arabs about 300 are at school, of 2,471 Africans only 310, including very few girls. The 46 pupils in the technical school are mainly Africans. Outside the town of Zanzibar there are eight Government elementary schools in the island with 693 pupils—all boys. The highest teacher up to Standard II. In Pemba there are seven boys' schools with 538 pupils; three of these are in the three townships and there is one small girls' school in Chake Chake with 15 pupils, 10 of these being from one family related to the male teacher. The total school-going population in the rural areas is estimated at 28,268, so that only 6.4% of the boys and a negligible percentage of the girls are receiving even the most elementary type of education. There are, in addition, 12 small Indian schools of the "venture" type receiving no aid from Government.

165. The average recurring cost per pupil in the Government elementary and middle schools was £6. 2s. 0d. in 1931, taking into account only the salaries of the teachers and incidental expenses. If overhead charges and the rent of houses occupied by teachers are included, the average cost per pupil would be considerably higher. The contrast is striking with the figures for any part of Africa in which education is largely carried on through Missionary societies. Even the Government native schools in the Union of South Africa show no comparable figures, but some allowance may be made for the small scale on which the work is carried on in Zanzibar.

The average number of pupils aimed at per teacher is 30, but the number based on attendance is 19.

The average cost per pupil in the Teachers' Training School is £36. 8s. 0d., excluding bursaries of Rs. 40 per month. Including bursaries, the total average cost is about £75 per annum.

In the vocational schools, commercial and technical, the average cost is £46. 18s. 0d. including bursaries but excluding overhead charges.

166. The inspecting and superior staff for these 15 town and 12 rural schools is as follows:—

(1) The Director of Education	.. .. .	Salary £1,200
(2) The Chief Inspector	.. .. .	£920
(3) The Supervisor of Education in Pemba	.. .. .	£475
(His wife receives an allowance of £50 for supervising the girls' school in Chake Chake.)		
(4) The Superintendent of Female Education	.. .. .	£500
(5) An Asiatic Assistant Inspector	.. .. .	Salary about £450
(6) The Headmaster of the Teachers' Training College	.. .. .	Salary £870
(7) The Headmaster of the Industrial School	.. .. .	£840
(8) A Jeanes teacher for the Elementary Schools	.. .. .	Salary Rs. 190 per month



167. The Director states that he gets inadequate time for helpful inspections owing to the amount of office work and returns, more especially those in connection with the annual report. The Chief Inspector complains similarly of being tied to his office by routine work.

168. After making full allowance for the exceptional difficulties presented by the educational problems in Zanzibar, and the special necessity for enlightened propaganda, it is difficult to understand the imperative need for an inspecting staff on this scale for such a small amount of elementary education. It is even more difficult to understand how there can be such an overwhelming mass of office work. The justification for the large inspecting staff, and more especially for the European supervision for seven small primary schools in Pemba, is described by the Director as "the necessity of adapting the schools to native requirements, close supervision of the teachers, giving an agricultural bias to the schools, inspiring a love of work and seeing that the new methods of teaching and new subjects or points of view are understood by the teachers and applied in practice." The Supervisor of Education in Pemba is described as practically a joint headmaster for the seven schools. In other words, the system aimed at is practically the carrying out of the work of Jeanes teachers by a highly paid European staff. In accordance with the same principle an extra European Inspector of Schools is proposed for 1933 by which time very few of the contemplated 14 additional rural schools spread over 17 years are likely to have materialized.

Little seems to have been done in the direction of enlisting the support of other departments, and more especially of District Officers or of the Agricultural Department, in the direction of educational propaganda or the adaptation of school gardens to elementary agricultural teaching.

169. The question of trained additional Jeanes teachers has been considered but so far with no results, partly because the standard of training at Kabete (in Kenya) is lower than the Zanzibar standard, while the climate and working conditions also present considerable obstacles. High educational ideals are certainly very necessary but it is equally necessary to have some regard to financial possibilities when the object aimed at is the widest possible diffusion of educational opportunities.

170. Both the system of inspection entirely by the agency of European inspectors and the scale of pay adopted for teachers will cause serious financial difficulties, considering the resources of the Protectorate.

171. These two questions will be considered in connection with the recently submitted scheme for the expansion of education; but before taking this up it is necessary to deal with the special case of the Government Industrial School costing normally Rs. 40,000 per annum.

This school was founded originally in 1909 as a Carpentry School and Tailoring was added in 1910.

The branches of work now carried on :—

- (1) *Tailoring*, in which there are 18 apprentices on a four year indenture receiving monthly pay varying from Rs. 10 to Rs. 25.
- (2) *Carpentry* in which there are usually about 20 apprentices on similar terms, though there are now only 12.
- (3) *Metal work* with 8 apprentices on the same terms—there are usually 12.
- (4) *Bootmaking* with 9 apprentices. This branch is being closed because the imports of cheap shoes—mostly Japanese—makes it impossible for local craftsmen to obtain a livelihood.

The *Tailoring* apprentices have no difficulty in finding work. The Government Central Clothing Stores, which supply the clothing for most departments except Police and Prisons, employ 5 or 6 and very few of the ex-pupils are out of work.

The *Carpentry* and *Metal work* apprentices, on the contrary, have not been able to get work owing to Indian competition. It might have been expected that the Public Works Department would have been able to employ some of them, but it is complained that there are never given any but the most menial jobs and that the Indian Mistries see that they get no chance of improving themselves in their trade. The view of the department is apparently that these African apprentices are inefficient and that their employment would result in economic loss to Government. As regards getting employment from private persons one obstacle is that the school aims at turning out craftsmen either in carpentry or metal work, while what the ordinary person requires is a general handyman who can do a certain amount of work as a mason as well as a carpenter. There would, in any case, be no opening for the metal work apprentices as their training is on machines which would not be found at present in any private establishment, not even in garages run on the very inefficient and wasteful lines followed in Zanzibar. The reason given by the Public Works Department for failing to make openings for African apprentices is not a convincing one, but the difficulties arising from the opposition of Indian vested interests are certainly serious and could only be surmounted by special attention being paid to this subject by the superior officers in the department. It is proposed to facilitate their employment by transferring these classes to the Public Works Department and putting them in the special charge of a European foreman. It is hoped that the fact of their receiving training in the department and having

an officer in the department whose duty it would be to support their interests may make the process of absorption easier. If a Foreman with suitable qualifications can be found who will take a genuine interest in the training and subsequent career of the boys and if he is supported by the superior officers in the department, the change should be advantageous. In any case, the present school should be closed down as being, for the most part, sheer waste of money. For deciding on the number of apprentices to be trained for the Public Works Department allowance will have to be made for the reduced scale on which that department is likely to work in the future.

172. The tailoring department can be carried on by the African instructor and his assistant at an approximate annual cost of £19 per head per annum; the cost might be further reduced by combining the training class with the Central Clothing Stores, making certain that adequate openings are secured for African pupils. Stores of this kind are certainly an unusual side of the activity of an Educational department, but no other department would take the same interest in the boys or carry on education simultaneously with training. It is worth carrying on a department for which there is an adequate public demand. The Central Stores should, however, keep proper costing accounts which do not exist at present.

173. Turning next to the proposed programme for the expansion of education, I should ordinarily not have considered this as coming within my scope. When, however, the programme involves an addition of £33,000 to the recurring expenditure within ten years, it is impossible to exclude it altogether from consideration in any estimate of the financial prospect of the Protectorate in the near future.

174. The only part of this programme on which special stress was laid in the representations submitted to me was the secondary school, which was strongly pressed for both by the Arab and by the Indian representatives. The case for the proposed school is clearly set out in the despatch and further comment is unnecessary.

175. I shall, therefore, confine myself to the more costly proposals connected with the Agricultural School and the Teachers' Training Class, together with the expansion in rural schools and the appointment of a new European Inspector.

It appears that the Educational Advisory Committee was not formally consulted about the proposals and has, in fact, not met for five years.

176. The despatch dealing with this comprehensive scheme diagnoses the greatest need of the present for African and Arab boys and girls as being the extension of rural education with an agricultural bias. It foreshadows, as a need of the future, the provision of more advanced instruction in agriculture and in the proper management of estates. The despatch goes on to point out that, for the attainment of the immediate objects, it is necessary to have an adequate supply of teachers trained on lines intended to fit them for their future work in the elementary schools of the Protectorate. These schools should be staffed by local teachers who know and understand the people of their own districts. Up to date the supply of teachers has been derived exclusively from the Central School consisting almost entirely of town-bred boys with occasional country bred boys whose training in the town makes them unfit for work in the country districts.

No facilities for gardening are available in the vicinity and there is no trained agriculturalist on the staff. It is, therefore, proposed to establish a rural boarding school for teachers in grounds containing adequate plots where this important side of the work could be adequately dealt with and where the future teachers would live in an environment similar to that in which their work will be carried out. A trained agriculturalist will be appointed to the staff of the school.

177. In connection with and in close proximity to the Teachers' Training School, there will be an Agricultural Boarding School where pupils selected from village schools would receive both a general education and special training in agriculture. On this school will be placed the chief dependence for the necessary supply of candidates for the teaching profession. The cost of the buildings is estimated at £27,381 and the recurring charges will be approximately £2,500.

178. The Director of Education states that the course is intended to be on the following lines. The first stage will be to move the Teachers' Training Class from the Central School to the new site at Chuini. They will be practically all town bred boys. As there will be no local primary or middle school they will receive their practical training in teaching by being conveyed to schools situated at some distance.

Two years later, or possibly earlier if funds permit, a beginning will be made with the Agricultural Middle School by transferring boys who have gone through the primary school course. The Director believes that they will be able to obtain an adequate number of boys for this school by persuading the parents, even those in Pemba, but cannot give any very definite grounds for this confidence. In any case he would be prepared to use compulsion if voluntary methods fail. No candidate teachers of a rural type will thus be available for the Teachers' Training Class for the next six years, and no trained teachers of this type will be available for the next eight years. During this period the Teachers' Training Class will continue to be recruited from town boys so that, before teachers of rural extraction

and training emerge, most of the proposed new schools will have been staffed with town bred teachers on the rates of pay which are to come into operation from 1934. Further, these teachers will all have been trained on the present lines, including a training in English, although the distinguishing feature of the new rural primary schools is to be that, although they are to have a six years' course and to teach up to the fourth standard, there is to be no teaching of English. The aim of this restriction is to avoid increasing the tendency to move into the town which is a serious evil in the Zanzibar social system at present. In the existing town primary schools English is taught from the third standard. When, six years later, boys from the Agricultural Middle School begin to become available for teacher's training, the medium for instructing them will be changed from English to Swahili and they will not be taught English. When that stage is reached the teachers from the town primary schools will receive the same training as those for the rural primary schools and will, therefore, not be taught English. The few teachers required for the town middle schools will be trained at the new secondary school, followed by a course at Makerere College in Uganda.

179. The essentials for the success of this scheme are, in the first place, an adequate supply of candidates from the rural primary schools for the proposed Agricultural Middle School, in the second place a clearly thought-out scheme of instruction with an agricultural or biological bias and, in the third place, a suitable site for the school, taking into account both health and the possibility of agricultural training based on ordinary native crops. It can hardly be said that any of these conditions have yet been clearly established. The compulsory recruitment considered possible as a last resort by the Director of Education hardly suggests itself as a method for popularizing agricultural education and there are not as yet any clear ideas as regards a syllabus or a system of agricultural or biological training, while the suitability of the proposed site from the agricultural point of view is still under inquiry. The Director would define agricultural bias as involving nature study and the enlisting of all branches of work, including arithmetic in connection with the work in the gardens, centring on the production of crops.

The site will doubtless be changed if necessary and it may be hoped that candidates for the Agricultural Middle School may ultimately be available, but two very difficult problems will still remain for solution.

180. In the first place, when the schools have been started on the lines proposed with teachers taken from the town and only partly trained under country surroundings, it will be difficult to avoid the perpetuation of town traditions and town habits of thought with a consequent strengthening of the tendency to move into the town which it was hoped to avoid by not teaching English.

181. The second and equally difficult problem is how to effect a transition from the present scales of pay, or even the reduced scales which are to come into operation in 1934, to a scale more suitable to the condition of village life. There has been, in fact, a sort of vicious circle with reference to the rates of pay of elementary school teachers. The first stage was the raising of the initial rates of pay for clerks in Government offices to Rs. 100-150 per month, rates paid with a view more especially to Indian candidates. When the question arose of training boys in the Central School, both for clerkships and for teachers, the Director of Education naturally contended that teachers must not receive less than clerks or else he would be left with the worst of the candidates. The view was accepted and the result is that the average elementary school teacher now receives a higher scale of pay than the average "mudir." This was not of so much importance so long as the schools were practically confined to the town of Zanzibar, but the position is entirely changed by the very right decision to extend education opportunities through the rural areas in which the Director admits that an initial rate of pay of Rs. 60 would be fully adequate. Tentative efforts have been made to reduce the pay of clerks without educational qualifications and of uncertified teachers, but as regards clerks little success has been achieved and teachers are so closely connected with them that a reduction of standards is by no means easy.

The most recent stage has been the announcement that from 1934 onwards the scale of pay for new teachers will be Rs. 100 for the very few who will get first grade certificates, Rs. 80 for those with second grade certificates, and Rs. 75 for third grade. Any further alteration will be dependent on corresponding changes in the pay of clerks as the result of developing a locally recruited service. Even these reduced rates are considerably above the standards suited to village life, and if applied on any considerable scale will increase the cost of education unnecessarily.

182. The Phelps Stokes Commission appear to have had these problems of a period of transition and the resulting financial difficulties in mind when they recommended making a definitely fresh start on a "simple, modest, but real basis" and developing a rural school system from a new centre of teachers' training, with supervision carried on for the most part by visiting teachers of the Jeanes type. They appear to have contemplated an entirely new approach to the problem by taking, from the first, candidate teachers of purely rural extraction and training and starting classes for them at some suitable centre entirely separate from the classes for the teachers of town schools. In the Protectorate a site

really removed from town influences could be most readily found in Pemba, which has up to the present received only a scanty share of the benefits from Government expenditure. Problems of health would certainly arise and also to some extent of supervision, but if a site were selected near an existing primary school and not too far from an agricultural experimental station, a satisfactory system of training could probably be evolved with the assistance of the officers of the Agricultural Department. It is not a question of any advanced agricultural instruction, for which there is no scope and not even the necessary foundations of scientific knowledge. It is rather that of familiarising the candidate teachers, who would be of rural extraction and traditions, with the scientific point of view to an extent adequate to enable them both to interest their pupils and to inspire in them the belief in a scientific chain of cause and effect as opposed to the belief in witchcraft which is such a universal background to native methods of thought.

183. An entirely new start on these lines has obvious advantages when it is desired to introduce a new atmosphere and new standards of expenditure, but this solution of the problem is not considered practicable because no candidate teachers would be available for a long time to come. The position is not, as in other parts of Africa, that the schools contain a number of boys fairly advanced in age, though backward in education, who are old enough to be made into teachers of an inferior stamp with some special training. The schools in Zanzibar contain no such boys and those who left the primary school some years ago are, as a rule, no longer capable of training.

184. The Government is therefore faced with a dilemma. On the one hand by continuing along the lines proposed expenditure will be maintained at a high standard and there will be a danger of maintaining the urban atmosphere and urban traditions which it was the special purpose of the new scheme to provide against.

On the other hand the alternative proposals, though making for economy and ultimately for a wider extension of education, though possibly of an inferior type, will make extension practically impossible for some years, while the foundations are being laid for a supply of teachers with rural traditions and training.

A short visit does not entitle anyone, more especially a person without expert knowledge, to form an opinion as to the relative merits of these alternatives, but even if the former is adopted, certain economies could be considered. In the first place the number of European Inspectors should not be increased beyond the number really essential, and they could be supplemented by visiting teachers of the Jeanes type. It is stated that the better teachers are so badly wanted in the schools that they cannot be spared for this work but, considering the small number required, this is hardly convincing. In the second place, part of the heavy capital expenditure proposed for Chuini might be postponed until some idea can be formed of the prospects of success of the joint scheme, even if this involves the ultimate replacement of temporary buildings.

185. The general conception of the lines on which rural education should be ultimately developed is undoubtedly sound, but the best methods of realising it and of associating the educational system with native culture and native traditions have certainly not been as yet worked out and will probably only be attained by continual experiment in various directions.

186. One line of development which might be considered is that of encouraging the rural native councils, whose establishment and finances will be dealt with in a later Chapter, to build their own schools and employ their own teachers. The latter would be drawn, as far as possible, from the areas in which the schools were situated and would receive rates of pay fixed by the native councils with the consent of the Administration. Some very successful schools of this type are working on the mainland and their appears to be no reason why Zanzibar should not use this as one of the avenues of educational progress.

The standard in such schools might be below that aimed at by the Education Department, but if a genuine interest in the schools could be developed among the parents as being their own creation and meeting what they felt to be the main needs of their children, the advantages to education would be substantial.

Much would depend on the interest shown by the native councils and by the administrative staff. The functions of the Education Department would be mainly advisory, though their recommendations could not be disregarded without very strong reasons.

The main difficulty would lie in the finding of suitable teachers who, though possibly of rather low educational qualifications, would have to be of sufficient character and intelligence to establish their position in village life. The co-operation of the Education Department with the native councils would make it possible to arrange for some special training being given to suitable persons recommended by the Councils.

187. It will clearly be many years before any progress made can have any appreciable effect on the revenue, as forecasted in the last paragraph of the Government despatch on this subject, and in the meantime funds are required for advances in other directions. In particular, it may be hoped

that no long time will elapse before the excellent work now being done at the Arab Girls' School is extended to the rural areas. No aspect of recent educational history holds out so much promise for the future as the developments at this school.

188. For the teaching of scientific agriculture, the ground has not yet been prepared, but, as has been noted in connection with the Agricultural Department, it is the intention of the Director to institute a small school at Kizimbani in connection with the proposed centre of agricultural research. While this will be mainly intended for training the staff of the Department it will not be confined to them, and it may be hoped that, before many years are past, a certain number of boys will be found who will definitely elect for an agricultural career, and be sufficiently advanced in education to be capable of profiting by the necessary training.

#### PUBLIC WORKS.

189. The following statement shows the amount spent on Public Works for the last eight years.

(a) Public Works Department Personal Emoluments and Other Charges.

	Rs.
1924	3,25,004
1925	3,56,362
1926	4,26,304
1927	4,59,755
1928	5,30,955
1929	5,11,607
1930	5,22,504
1931	5,58,578
1932 (estimated)	4,88,579

(b) Public Works Recurrent.

1924	3,98,293
1925	4,35,613
1926	4,46,451
1927	4,04,940
1928	4,20,857
1929	4,15,334
1930	5,95,802
1931	5,58,800
1932 (estimated)	3,22,000

(c) Public Works Extraordinary.

1924	13,93,451
1925	20,68,168
1926	27,83,480
1927	20,39,131
1928	17,87,751
1929	13,69,874
1930	6,46,048
1931	4,20,696
1932 (estimated)	1,61,600 (includes Rs. 13,600 from Colonial Development Fund)

The extraordinary expenditure during these years was divided as follows:—

Year.	Road Construction, Zanzibar.	Road Construction, Pemba.	Other Works, Zanzibar.	Other Works, Pemba.	Harbour Works.	Total Expenditure for the year.
1924	2,656	3,11,765	6,25,279	65,383	3,88,368	13,93,451
1925	2,43,277	2,26,355	8,18,339	2,32,617	5,47,580	20,68,168
1926	5,06,691	6,18,009	8,20,552	2,07,229	6,30,999	27,83,480
1927	5,07,390	3,84,817	6,14,826	55,414	4,96,684	20,59,131
1928	2,80,337	3,87,728	1,58,135	2,72,714	6,88,837	17,87,751
1929	1,83,514	2,89,463	2,61,058	97,047	5,38,792	13,69,874
1930	93,918	2,08,965	2,72,073	48,157	22,935	6,46,048
1931	98,355	—	2,57,563	64,778	—	4,20,696
1932 (estimated)	—	—	*1,18,595	37,005	6,000	1,61,600
<b>Total</b>	<b>19,16,138</b>	<b>24,27,102</b>	<b>39,46,420</b>	<b>10,80,344</b>	<b>33,20,195</b>	<b>1,26,90,199</b>

\* Including a grant of Rs. 13,600 from the Colonial Development Fund.

190. Large scale development on public works, involving a considerable drain on the surplus balances which had accumulated at an almost embarrassing rate in the boom years at the end of the war and for some time after, commenced in 1930 with the building of the Wesha-Chake Chake road in Pemba and, in the following year, with the harbour works in Zanzibar. Road construction on an extensive scale was begun about the same time and between 1922-1931 a sum of close on £350,000 was spent on road communications in the two islands, while, in the same period, approximately £450,000 was spent on other works, building, water-works and anti-malaria drainage.

191. The harbour works, which were completed in 1928, cost about £450,000, a sum far in excess of the original estimate for a deep water pier designed to berth large steamers. This project was not carried out and at a rough computation, the work finally completed could have been done for about half the actual cost. No expenditure, except on maintenance, is now required.

192. The system of new roads has undoubtedly conferred substantial benefits on the Territory, both directly by assisting the clove industry, and indirectly by removing some of the stagnation which was the natural result of the previous isolation. The total mileage of roads constructed is now 154 in Zanzibar and 70 in Pemba, the mileage of waterproofed roads being 98 and 50 respectively. Thirty-seven miles in Zanzibar are metalled but not waterproofed and 20 miles of road in Pemba are neither metalled nor waterproofed. The standard of the roads is very high and far exceeds that in other parts of Africa, even in the Union. It is, indeed, unnecessarily high for the primary purposes for which they were built, namely the transport of cloves and labourers, and its justification will depend on the possibility of establishing that, in the long run, there will be considerable economy in the cost of maintenance. Although the hilly nature of Pemba presents difficulties to the roadmaker, the island is fortunate in having an abundance of limestone, whereas Zanzibar has to depend on ordinary coral rag which disintegrates at once unless it is waterproofed. This does not apply to the same extent to the Pemba limestone but it is said to bind badly.

The roads first constructed were very expensive, costing up to £5,000 per mile, but the experience gained as the work progressed has resulted in the cost per mile being reduced by more than fifty per cent.

193. An eight-year programme has been worked out, on the assumption that no reconstruction of waterproofed roads will be called for, involving an expenditure of Rs. 182,000 in 1933, to include the reconstruction of 18 miles of metalled but unwaterproofed roads at Rs. 8,000 a mile, in 1934 of Rs. 1,86,000 and in 1935 of Rs. 185,850. At this stage all the roads will be waterproofed, with a waterproofed length of 154 miles. For the next five years a considerable decline in upkeep is envisaged : in 1936, Rs. 88,000 ; 1937, 83,600 ; in 1938, 1939 and 1940, about Rs. 43,000 annually.

These figures are admittedly provisional, as experience only will show what expenditure is really necessary. One thing is clear and that is that the total provision of Rs. 1,10,000 for 1932 (Rs. 60,000 for Zanzibar and Rs. 50,000 for Pemba) will be inadequate and that this must be increased if the roads are to be kept in good repair.

194. As regards buildings, the Public Works Department, as in the case of the roads, has adopted a very high standard and the buildings compare most favourably with public offices in other places. Especial consideration has been given to lay out and design in order that they may harmonize with the Arab type of architecture, but although this is aesthetically desirable it is expensive and the time has come when, if new buildings are required, a more modest standard must be adopted. The provision for maintenance of buildings in 1932 is only Rs. 50,000 which is insufficient to keep them in proper repair and to prevent their becoming a wasting asset. A considerable proportion of this vote is spent on the maintenance of Government owned property, such as shops, godowns, shark markets, etc., which are rented to private individuals and which are, in many cases, old and in bad repair. It would seem desirable, as opportunity offers and when a favourable market exists, to dispose of as many of these as possible ; but any sums derived from their sale should go to increase surplus balances and should not be placed to general revenue and spent.

195. It is now clear that for some years to come finance will not permit of any large scale expenditure on public works comparable with the past, and the Department should be reduced to a care and maintenance basis, with sufficient staff to carry out essential new works of a minor nature, any substantial new works in future being let out to contract as suggested in a later portion of this note. The Protectorate is now adequately equipped with buildings, plant and machinery and no expansion on these accounts is required unless there is an extension of medical, educational and, possibly, agricultural services. A staff reduced as suggested above postulates the framing of a programme for some years ahead, from which no extensive departure should be made, as, otherwise, the tendency will be to budget for an establishment sufficiently liberal to deal with possible developments. A programme should, therefore, be framed showing the minimum staff required to carry it out, and in fairness to the Director

of Public Works, and in the interest of economy, the Government should refrain from making additional calls which have not been foreseen or provided for except in cases of genuinely unavoidable emergencies. Resolutions of this kind would be strengthened if for the next few years any extraordinary works which may appear unavoidable were submitted to the Secretary of State for prior approval before inclusion in the Estimates.

196. In taking into consideration the staff required for a care and maintenance programme it is necessary to consider what future reductions may be possible (a) if work can be put out to contract, and (b) if economies are effected by the abolition or amalgamation of the following branches of the Department: (i) stores, (ii) motor transport, (iii) workshops.

I shall deal with these heads separately.

197. (a) It was represented by unofficial bodies that considerable economies could be achieved if public works were given out to contract, the completion of the deep water berths in Kilindini being given as an example. An attempt was made to deal with buildings and roads in 1910-11 in Zanzibar by contract but was, apparently, unsuccessful. Since that time the only important work attempted by contract was 20 miles of road in Pemba, but as the contractor was to get a fixed monthly salary and all actual costs it was not, in reality, a contract at all. The Director of Public Works does not think that any extensive amount of work in connection with maintenance or repairs or with minor works could be done through contractors or that, if it could, there could be any substantial reductions in staff, as there are, in his opinion, no reliable contractors available.

It is, of course, one thing to call for contractors for large works such as harbour works and another to find suitable contractors for road maintenance and for minor works in out-stations. The latter is not likely to be successful or, indeed, economical, as if a staff has to be kept for supervision and for maintenance of existing works it can be employed, at little extra expense, on constructing unimportant works. The experiment should be tried, however, of calling for tenders if any large work has to be constructed in future, as there are reliable contractors on the mainland, if not in Zanzibar, who would probably be prepared to tender for any buildings of importance. This desirability should be borne in mind when the future establishment of the department is finally decided.

198. (b) (i) *Stores*.—The Public Works Department stores staff at present consists of a European storekeeper, seven clerks and one storeman, and the branch costs annually Rs. 31,849. The monthly turnover of the Zanzibar stores is, on an average, Rs. 76,750 and of the Pemba stores Rs. 22,570. For 1931 store receipts for both islands amounted to Rs. 580,319 and issues to Rs. 611,613, the balance of stores remaining on hand at the end of the year being Rs. 274,378 of which all but Rs. 50,000 was held in the main store in Zanzibar. The amalgamation of the stores of the Public Works Department and Electricity Department was urged by unofficial representatives but presents some difficulty as the Public Works Department stores are already congested. I have suggested, moreover, in my note under "Port and Marine," that the stores of that Department might be combined with those of the Electricity Department. Whether, if the Electricity Department is placed under the supervision of the Director of Public Works, the stores of all three departments could be combined is a matter for future consideration. The difficulty will lie in the distance from the shore of the Public Works Department stores which would inconvenience the Port and Marine Department.

The adoption of a policy of the local purchase of stores dealt with in paragraph 330 would change the character of the problem. In any case, as a result of the cessation of the development programme on roads and harbour works, a steady reduction can be made in the stock of unallocated stores.

199. (ii) *The Transport Branch*.—This branch is concerned with:

- (i) Thirty lorries, 10 steam and motor rollers, 7 small motor rollers, 6 stone-breakers and other mechanical appliances for road work. Of these the number required for road work in future, in both islands, is 16 lorries, 10 rollers, and 4 stone-breakers. The fleet should be reduced to the minimum requirements of a care and maintenance programme by scrapping unserviceable machines. As a corollary, the staff required to drive and work these vehicles will be capable of considerable reduction.
- (ii) A fleet of cars for official transport, consisting of one Daimler for the Resident, one Armstrong-Siddeley, two Wolseleys, six Morris-Cowleys, one Morris Minor, two "general utility" cars with box bodies, and four motor bicycles.

The cost of maintaining this service, worked out on a commercial basis so as to include interest and depreciation on capital, the ordinary recurrent charges for salaries and running expenses and unexposed charges such as pension liabilities, etc., amounted in 1931 in round figures, to Rs. 71,000 a year. The detailed figures from which this sum was arrived at were compiled by the Treasurer and, being available locally, need not be recapitulated here. The cost, on the other hand, of running the service at contract rates for the same mileage, would have been Rs. 75,000, excluding periods of waiting, but the so-called contract rate of 8 annas per mile, which was previously quoted by private garages.

is out of date and excessive and a much better quotation could be obtained to-day. If, on the other hand, the mileage covered had been performed by officials using their own cars, and drawing mileage allowance, the cost, at a generous estimate, would not have exceeded Rs. 45,000.

Moreover, it may safely be assumed that, if the public transport service were non-existent, the mileage performed would be appreciably less. As it is, indents for cars and lorries are never questioned by the Public Works Department nor is the Director empowered to challenge the necessity for any indent.

In general, the state of affairs supports the view that services of this nature are inevitably uneconomical.

200. I recommend, therefore, that the Public Works transport for official passengers should be abolished. This will involve the disappearance of the following personnel :—

- (a) The Mechanical Superintendent, who receives £480 per annum and is partly employed on the transport service and partly in the workshops, should be retrenched. As stated later in this chapter, his services will no longer be required in the workshops when repairs to lorries, etc., are carried out by the Electricity workshops. The examination of public vehicles under the Vehicles' Decree would be assigned to one of the engineers in the Electricity Department who would receive the allowance provided for this service.
- (b) European Mechanic, salary £360, is already under notice to go.
- (c) Superintendent of garage, salary Rs. 3,060, is chauffeur to the Resident as well as being responsible for the subordinate garage staff. The latter duties will disappear and it may be possible to dispense with his services and to employ a cheaper chauffeur for the Residency car.
- (d) Six chauffeurs, 1 clerk, 1 office boy and 4 car cleaners, with salaries amounting to about £1,000 a year, can be discharged.

The staff, as well as the cars, cannot all be discharged on the spot, but immediate reductions can be made as soon as the Public Works repairs are transferred to the Electricity workshop and the older motor-cars, which are reaching the end of their life, might then be sold. The new Morris-Cowleys might be offered at a reasonable valuation to Government officials requiring cars for official purposes.

201. With the disappearance of the transport service, mileage allowances will have to be paid, in respect of journeys performed by officials in their own cars. If, on any special occasion, it is necessary to hire motor-cars for passengers, an arrangement should be made with one of the private garages that a car should be available, at fixed rates for mileage covered and waiting, and it would be well to call for tenders annually for a contract of this kind. Indents for Public Works Department lorries for the transport of stores, etc., of other departments should be subject to scrutiny and, if necessary, disallowance by the Director of Public Works, disallowance being exercised if, in his opinion, the transport could be carried out by the public omnibus services which run all over the island and by which any native employees requiring to be transported should be made to travel.

At the same time mileage claims should be submitted to more careful scrutiny and the use of cars confined to *essential* journeys.

It may be noted that the total mileage covered per working day by Departments in 1931 in Zanzibar island alone amounted to 593, of which 376 were covered by the Public Works Department, 75 by the Medical, 59 by the Administration and 20 by the Education Department. As there are, roughly, 145 miles of road in the island it will be seen that the whole road mileage was covered four times a day, which seems excessive.

202. (iii). *The Workshops*.—It was suggested by unofficials that the Public Works and Electricity workshops should be merged. The Director of Electricity has stated confidently that his workshops, which are adequately equipped, could carry out all work which the Public Works Department requires to be undertaken without extra staff except, possibly, if there were a rush of work when additional staff could be engaged temporarily. It is fortunate that his electrical engineers have a good knowledge of mechanical transport and one, the present Superintendent of the Power Station, was formerly a mechanic in the Public Works workshops. It may be noted that the Electricity Department took over the Public Works workshops in 1913 but, with the development programme on roads and harbour works, the latter were re-established. The Public Works Department admits that the proposal is attractive in theory but feels that it would be awkward in actual practice as it is easier to work with men directly under its own control. The slight inconvenience which might result is more than offset by the economies which are possible and will, in fact, disappear if, as I suggest elsewhere, the Electricity and Wireless Department is placed under the supervision of the Director of Public Works.

203. I recommend, therefore, that the workshops of the Public Works Department should be closed down and that the staff should be retrenched. The consequent saving will amount to Rs. 7,608 per annum apart from the salary of the Mechanical Superintendent for which allowance has been made under the Transport branch.



204. It now remains to consider what other adjustments in staff can be made on the understanding that a care and maintenance programme is observed, and that the transport service and workshops are closed down. In pursuance of the policy of eliminating Deputies or Assistant Directors, the post of Assistant Director of Public Works should be abolished when the present holder retires this year. The Director of Public Works himself would not propose to fill it.

205. As regards the engineering staff, there are, at present, one District and two Assistant Engineers on the permanent staff, and two posts of temporary assistant engineer, of which only one is filled. It should be possible to work with three, of whom one would be in Zanzibar, one in Pemba, and the third as a relief for those two and for the Director of Public Works. There would be short periods, however, when all would be on duty together. As the principal work of the Department for the next few years will be the completion of the road programme and maintenance of buildings, this staff should suffice, although the Department will be rather short-handed in Zanzibar Island. It should be possible to arrange, however, for the engineer posted to Pemba to come down for two or three months to Zanzibar to assist in the road work in that island, as the work in Pemba will not be heavy. The fact that Pemba is separated from Zanzibar by a strip of water is inclined to lead to the establishment of watertight sub-departments in Pemba, and as the journey takes no more than eight hours, or less than the time occupied in travelling from one station to another in many of the Provinces on the mainland, the tendency should be to make the Pemba staff more mobile and available to meet departmental calls in Zanzibar.

206. Although the Director of Public Works presses for the services of an architect, I cannot see any justification for his retention, as there are unlikely to be any elaborate building schemes for some years. Preliminary plans and quantities have already been drawn up for a number of buildings projected, and standard designs have been prepared to meet works of a more routine nature, *e.g.*, village schools, police posts, dispensaries, etc. The present architect is an expert in town planning but precisely what town planning schemes are likely to materialise is not clear. The maintenance of existing buildings should be carried on, as elsewhere, by engineers, and in case of any special emergency such as occurred lately in connection with the Bet-el-Ajaib, the services of an architect could probably be borrowed from a mainland Territory.

207. The Accountant should probably remain as, although the works programme will be reduced, close supervision of expenditure should result in economies. Moreover, he will be able to relieve the Director of much routine correspondence and enable him to get out on visits of inspection. On the occurrence of a vacancy, however, the maximum of the salary scale might be reduced to £600 per annum.

208. The Building Surveyor is, at present, not over-burdened and might assist by reporting on the preservation of public buildings, or in such other manner as the Director of Public Works thinks fit. In other words, he should not restrict himself solely to the comparatively light duties which his title defines.

209. The Superintendent of Water Works proposes, I understand, to retire in the near future. He receives a salary of £600 in the scale of £480 by £20 to £600 *plus* a non-pensionable allowance of £63 15s. It should be possible to obtain a candidate to fill the vacancy at a lower salary, for example, £372 by £18 to £426 or £426 by £16 to £480.

210. As stated above, the Mechanical Superintendent and the Mechanic should be retrenched. The question of reducing the subordinate staff, including the Clerks of Works and foreman, and, in particular, the number of Asiatics and native employees, so as to conform with a care and maintenance policy, must be left to the Director, as this is a matter which requires technical experience and inside knowledge of the workings of the Department to which a layman cannot pretend. *Prima facie* however, a separate Clerk of Works for Pemba would appear to be unnecessary. The strength of the clerical and stores staff has been examined by the Committee appointed for the purpose, and reductions are recommended by it.

211. One of the European foremen will be employed, for part of his time, in supervising apprentices now under training in the industrial branch of the Education Department which, as proposed in my note of that Department, should be closed down.

212. An economy of Rs. 990 per annum might be effected in Pemba by doing away with the all-night telephone service which has been established.

213. The votes for "other charges" will be affected by a reduction of establishment to an extent dependent on the programme to be drawn up by the Director of Public Works.

## SURVEY.

214. The Survey Department is now approaching the completion of the Topographical Survey of Zanzibar island. The first work taken up was the survey of Zanzibar city on a scale of 40 feet to the inch, and the total cost of surveying the town of Zanzibar and the three small townships in Pemba was Rs. 1,44,000, spread over five years. Unfortunately, the opportunity was not taken of combining the survey with a general registration of titles in the town of Zanzibar, and the map is useless for ascertainment of title. A settlement could still be carried out without much difficulty on the basis of the map, though a considerable number of alterations have already taken place in the area occupied by native huts. To bring the map up to date would take about a year and cost approximately Rs. 5,000. It would certainly be desirable to carry out this work and to supplement it by a registration of titles in the town.

215. The topographical survey was commenced in March, 1927, and the field work is expected to be completed in September next, though fair copies will not be available for eighteen months or two years. The budget estimate for this year is Rs. 70,914 but this does not include the charges of the Ordnance Survey. A cadastral survey is also being made of all Government plantations, and about three-quarters of the work has been completed, including the demarcation of the boundaries. It is of interest to note, with reference to the proposal for a general cadastral survey of the plantations, that no objections have been raised to the proposed boundaries by the owners of neighbouring shambas. The explanation given is, however, that any encroachments have been at the expense of Government.

216. Up to the end of 1931 the cost of the survey had amounted to Rs. 3 lakhs, so that the total expenses will exceed four lakhs as compared with the original estimate of Rs. 1,25,000. The total area is something over 600 square miles and the cost will average rather over £4. 10s. Od. per square mile as compared with from £1 to £2 in Sierra Leone. The difference is ascribed to the survey being on a six-inch instead of a one-inch scale and to the country being cultivated and largely under tree plantations as compared with large uncultivated areas in West Africa. The greater dependence on imported staff has also contributed to the excess over Sierra Leone standards and the first estimate was an obviously impossible one considering the character of the country. The survey does, however, appear to have taken longer than would have been expected. It has been carried out bearing in mind the possibility of its being followed by a cadastral survey. Every mile post is co-ordinated and approximately every square mile has a permanent mark.

217. A good topographical survey was made of Pemba in 1911-12 by Captain Craster, R.E., and it is noticeable that the survey operations took less than two years as compared with five years for Zanzibar. The difference in area must, however, be taken into account, the area of Pemba being about 390 square miles.

Very few permanent marks were erected and in order to prepare for a cadastral survey, an instrumental traverse would have to be made round the island and along the roads on the main ridges.

218. The question of a cadastral survey of the shamba or plantation area will be separately considered.

## AGRICULTURE.

219. The Agricultural Department in Zanzibar has had an unusual history, little of it having any relation to scientific agriculture. The first Director held charge from 1896 to 1912 and carried on a considerable amount of general experimental work, besides improving the condition of the Government plantations. No practical results have followed on his experiments in connection with the introduction of new crops.

The next Director remained from 1912 to 1924 and his whole activities were as a manager of plantations with a very little experimental work in connection with rice and cloves. He instituted the system of bonuses on bearing clove trees and on clove seedlings, also of advances for harvesting and advances on stored cloves. These will be considered in connection with the Clove Growers' Association. For the present purposes it is enough to say that most of the time of the officers of the Agricultural Department was taken up with work in connection with these bonuses and advances.

This was even more the case under the next Director who confined his attention almost exclusively to organising the marketing side of the clove industry through the agency of the Clove Growers' Association.

The bonuses on bearing trees and on seedlings were discontinued in 1928 and 1929, but even after their disappearance, such a large proportion of the time of the department was taken up with the management of the Clove Growers' Association, that there was neither time nor opportunity for scientific work.

220. It is not unfair to say that practically no scientific experimental work has been carried out since 1912. This is not the result of a failure on the part of the officers of the department, but is simply an unavoidable consequence of their being so overburdened with business management and

routine work in connection with plantations, that there was no opportunity for scientific work. Of any definite scheme for scientific experimental work there is no trace whatever. It is only fair to say that the organisation of the Clove Growers' Association was in itself a valuable piece of work with great possibilities of future development. Once organised, its detailed management was not work which should have been imposed on the officers of a scientific department.

221. The present superior staff includes a Director, an Assistant Director, four Agricultural Officers—two in each island—an Inspector of Produce, and a Manager of Plantations.

222. There are in all 85 Government plantations covering about 17,000 acres, of which some 8,000 acres are fully planted with cloves and cocoanuts. In Zanzibar island there are 58 plantations. More than half are within an area of 18 square miles and there are two other fairly compact groups, but the rest are scattered plantations, mainly of cocoanuts. In Pemba the plantations are very scattered and include a wide variety of conditions.

Some plantations are in good order, others are not, and in general it cannot be said that they are in any sense a model for privately-owned plantations. As regards the commercial aspect of their work, accounts have never been kept on a proper commercial basis. The annual reports have shown a profit only by not debiting a considerable proportion of the charges fairly debitable, and it is not now possible to work out the real expenditure in previous years. For the future a proper system of accounting will be introduced.

223. The first essential is, however, to frame a definite policy with reference to the Government plantations; more especially to decide what proportion should be sold and what retained, and whether the latter should be carried on as experimental and demonstration areas or run as commercial propositions on a costing basis.

Twelve plantations in Pemba and six in Zanzibar have been put up for sale, but the conditions at the present time are unfavourable for sales. Twenty-four cocoanut plantations are leased, and nine more are capable of being leased, with the result of a small saving of Rs. 2,436 in staff. On the whole, however, an extension of the system of leasing of cocoanut plantations would probably not result in much economy, while it is not desirable to lease clove crops owing to the practical certainty of injury to the trees. Even in the case of cocoanuts, leasing tends to facilitate the very pernicious local practice of picking immature nuts for copra. Substantial economies are only possible by the sale of plantations and in this direction the proposals of the new Director are as follows.

224. In Zanzibar island he proposes to concentrate the main scientific and experimental work in a group of plantations at Kizimbani, partly devoted to experiments in connection with cloves and partly to inquiries connected with other crops. With these he would combine a small agricultural school mainly for the purpose of training their own staff but, possibly, taking in a few outside candidates from the Government schools who were definitely taking up an agricultural career. The school would be carried on on strictly practical and economical lines without special buildings or a special teaching staff.

At Machui and Selem he proposes to have two plantations groups run on strictly commercial lines as model estates. The results of the experimental work done at Kizimbani will be applied in them.

In Pemba he proposes to have no purely commercial plantations but to keep three plantations, in the north, centre and south of the island respectively, as secondary experimental stations, but also partly on a commercial basis so far as this is compatible with their experimental work. The main experimental work will, as far as possible, be concentrated at Kizimbani.

All other plantations will be disposed of as opportunity offers, and, as already pointed out in paragraph 3, receipts should be credited to reserve—not be treated as available for ordinary expenditure.

225. The proposals of the Director appear to me to be based on a sound conception of the general position and the only suggestion which I would make is that, in disposing of the plantations and more especially of the smaller ones, there should be very careful consideration of a scheme for developing them as small holdings, preferably on such conditions as would make it possible to influence the holders in the direction of improved methods both of cultivation and of marketing.

226. The superior staff proposed by the Director for future work on these lines is as follows :—

One senior officer, who need not be called Assistant Director, who would be in general charge of the work of the district agricultural officers and would also act as a leave relief. In Pemba there would be one senior officer in general charge both of the plantations and of all other work in connection with native crops and with copra. Under him a junior officer would be directly responsible for the work of the plantations.

In Zanzibar the Manager of Plantations would be in charge of the group run on a commercial basis and his time would be fully occupied by them. As in Pemba, there would be two other officers, a senior officer in general charge and a junior officer in immediate charge of the experimental station at Kizimbani.

227. In addition a Silviculturalist officer is required as recommended by Professor Troup. He would act as adviser in connection with the experimental stations at Kizimbani and in Pemba, and with this assistance the ordinary staff of the department should be able to deal with the enquiries suggested by the Silviculturalist and also to deal with the fundamental but for the most part comparatively simple problems suggested by Professor Troup. Experience of working on these lines will show whether it is necessary to get an additional research officer to work on such subjects as the physiology of crop production and crop husbandry for maximum outturn. The pay of the Silviculturalist would be about £720 plus an allowance of say £100. The total additional provision would be about £1,200.

228. The work of the inspector of produce will be increased by the proposed inspection of copra but this department pays for itself and the rates can be revised if necessary. Copra inspection will not require much increase of staff because it comes in throughout the year whereas cloves are for the most part seasonal.

229. These proposals may be accepted on the assumption that a programme of research will be worked out and carried through. During the current year the department will still have a considerable amount of work in connection with the Clove Growers' Association but from next year it should be possible to commence work on the new lines.

230. I have discussed with the Director the question of the retention of the Chemical Branch of the Agricultural Department which up to the present cannot be said to have justified its existence from the agricultural point of view. Most of its work has, in fact, been in connection with the testing of food and drugs with a small amount of work in connection with cloves—more especially the testing of moisture content—and occasional soil analysis or other chemical problems.

So far as the food and drugs work is concerned no reason is apparent why the essential part of it should not be carried out by the strengthened Pathological laboratory of the Medical Department and arrangements could probably be made for having soil analysis and similar work carried out in England or on the mainland. It would therefore seem possible to dispense with the laboratory unless a new programme of important work is likely to justify its continuance. The Director of Agriculture presses strongly for its retention. He represents that it will be a very important adjunct to the programme of scientific work which he has in contemplation, not only for the purpose of the detailed soil analyses which are required in connection with the various problems of the clove industry but also for assisting in the solution of many other questions which are certain to arise in connection with enquiries into the local system of tropical agriculture. A local laboratory can undoubtedly be a very valuable adjunct to a programme of scientific experiment and the Director should, in my opinion, be given an opportunity of developing his ideas in this direction. I recommend therefore, that the laboratory should be retained for the present as there is no immediate urgency for further economies in addition to those suggested in this report. The position should be again enquired into in two years time and unless a stronger case can then be made out for its retention it should be abolished and other arrangements made for carrying on the work. I understand that the title of the officer in charge of the laboratory is being changed from that of Assistant Government Chemist to that of Government Chemist. The change of name should not be accepted as an adequate reason for increasing the rate of pay, as appears to have occurred on several occasions in the past.

231. It is difficult to come to any definite conclusions as regards the clerical staff until the work of the Clove Growers' Association has been separated from the work of the department. When that separation occurs a first grade head clerk will no longer be required and the question of transferring him to the Clove Growers' Association might be considered.

232. Two Government motor cars are maintained for the Agricultural Department, one for the use of the Director, the other for the Manager of Plantations. There are also six official motor bicycles and one tractor. The estimates provide for two mechanics to look after these machines. I have recommended elsewhere the abolition of Government motor cars and see no reason why those of the Agricultural Department should be exceptions to this rule. The Director is inclined to recommend the retention of one car for the Manager of Plantations on the ground that it will be in constant use. With plantations concentrated as now proposed it is not apparent why the usual arrangements should not suffice. One mechanic acts as driver of the tractor and if its use is essential he must be maintained, but the other can be reduced.

233. As regards the plantation and other subordinate staffs, the possibilities of a substantial reduction in expenditure depend on the disposal of all outlying plantations and the concentration of work in definite groups. It is, however, very difficult to estimate the staff which will ultimately be required at the experimental stations. A rough estimate made by the Director of possible ultimate reductions, when the extra plantations have been disposed of, amounts to Rs. 49,000; recurring but

definite economies which can be suggested for early realization are the abolition of the fourteen rangers who act as plantation police and of the special teacher attached to the Machui field group.

Approximately Rs. 25,000 more non-recurring expenditure will be required for extra building at the central experimental station.

When reorganisation has been completed a careful enquiry should be made into the general organisation and strength of the subordinate and menial staffs.

234. Other branches of work which the Director has in contemplation are in connection with cattle breeding by selection from local bulls—not by the importation of grade stock—fruit and poultry. The first of these might involve an increase in the veterinary staff which is at present under the control of the Medical Department and does practically no work outside the town. The Agricultural Department would be a more suitable agency for controlling any work in the rural area.

The season at which citrus ripens in Zanzibar appears to afford opportunities in connection with fruit cultivation, but though the quality is good the colour of the fruit causes difficulties in connection with marketing. I understand that a leading commercial firm wishes to co-operate in connection with the marketing side of the industry.

Improved varieties of poultry would certainly be a substantial improvement on the very inferior local breed.

235. The expenditure of Rs. 21,500 on Public Gardens appears to require scrutiny both as regards the staff employed, the rates of pay and incidental expenses, more especially on labour. I understand that, apart from the Victoria Gardens, a number of private gardens are maintained in connection with the quarters occupied by Government officers. This expenditure does not appear to be justifiable.

#### POST OFFICE.

236. The Post Office is managed by an Asiatic staff under the control of the Treasurer, which is an economical arrangement though it has not proved very satisfactory in the past. Considerable improvements in accounting procedure and office organisation have, however, taken place since the periodical inspections made by an officer loaned from the Postal service of Tanganyika and the work of the office was recently well reported on. It is proposed that these visits should continue until the need for them disappear when the amount provided in the estimates for them can be reduced or eliminated.

237. The possibility of appointing a European postmaster has been considered but so long as the Post Office is not concerned with telegraphs, telephones, or wireless, which are at present controlled by other departments, this seems to be unnecessary.

238. The adequacy of the postage rates, which survive on a pre-war basis, has been examined from time to time, but the Government, being satisfied that the service was paying for itself, adhered to the principle that the Post Office should not be used as a medium of taxation. Against an average revenue of Rs. 91,000 for the three years 1928, 1929 and 1930 there was an average expenditure under the Post Office vote of Rs. 66,300 and, under "Provincial Administration" in respect of staff, etc., employed on postal work a further Rs. 10,700, making a total of Rs. 77,000. In addition, however, there was a special expenditure debit of Rs. 30,000 in 1930. On recurrent expenditure there was, therefore, a balance of Rs. 14,000 a year to meet pension liabilities, provision of offices and quarters, supervision and other charges not disclosed by the departmental appropriation. It is doubtful if this margin is sufficient.

239. In comparison with other countries the present postal rates are :—

		For first ounce.	Each additional ounce.
		<i>Equivalent of rates in pence.</i>	
<b>ZANZIBAR—</b>			
Inland ...	...	$\frac{1}{2}$	$\frac{1}{2}$
Imperial ...	...	1	1
Foreign...	...	3.33	1.66
<b>KENYA, TANGANYIKA AND UGANDA—</b>			
Inland ...	...	2.40	1.80
Imperial ...	...	2.40	1.80
Foreign...	...	3.60	1.80
<b>INDIA—</b>			
Inland ...	...	1	1
Imperial ...	...	2	1½
Foreign...	...	3	1½

240. I recommend that the Imperial letter rates should be doubled for the first ounce and that such adjustment as is necessary be made in the rates for additional weight. This increase, which should bring in an extra Rs. 12,000 a year, would fall mainly on the immigrant population and would, to some extent, be borne by transit passengers. I do not consider that any increase should be made in rates for internal postage, low as these are. If they were increased, the burden would fall largely on the native population and would almost certainly result in a great diminution of postal correspondence.

#### ELECTRICITY AND WIRELESS.

241. The Electricity and Wireless Department, as its name implies, has two main separate functions, namely the generating and supply of electricity to the town of Zanzibar and the provision and maintenance of the wireless service in both islands. Subsidiary activities are the running of the telephone service in Zanzibar island and of the workshops. These can conveniently be dealt with in order.

242. *Electricity.*—In estimating the true financial position of this branch of the Department it is necessary, so far as possible, to treat the accounts on a commercial basis, as the Department is, or should be, run on those lines, and any other method of accounting which conceals indirect subsidies from Government will continue to lead to the supply of current and power at unjustifiably low rates.

243. The total income of the Department for electricity services in 1931 was Rs. 3,35,187 divisible as follows :—

Street Lighting	...	...	...	...	...	...	...	Rs. 54,999
Private Lighting	...	...	...	...	...	...	...	1,56,947
Government Lighting	...	...	...	...	...	...	...	18,456
Power to Public	...	...	...	...	...	...	...	34,261
Power to Government	...	...	...	...	...	...	...	11,997
Current for Cooking and Water Heaters	...	...	...	...	...	...	...	13,109
Current for Refrigerators	...	...	...	...	...	...	...	5,904
Meter Rents for Public	...	...	...	...	...	...	...	30,437
Meter Rents to Government...	...	...	...	...	...	...	...	909
Fan Hire	...	...	...	...	...	...	...	620
Cooker Hire	...	...	...	...	...	...	...	2,732
Refrigerator Hire	...	...	...	...	...	...	...	4,450
Water Heater Hire	...	...	...	...	...	...	...	366
								<u>Rs. 3,35,187</u>

The above was the actual amount earned during the year. The Treasury books show a total of Rs. 3,41,483 in 1931, the excess representing amounts earned in 1930 and collected in 1931.

Of these total receipts, Rs. 54,999 is a book transaction to Government on account of street lighting at the high rate of 4.8 annas a unit, or not much below the rate charged to private consumers. It is certainly unusual in similar undertakings for the charge made for public lighting in bulk to approximate so closely to that for private lighting, and a fairer charge on this account would be 3½ annas a unit which would reduce the receipts under this head to Rs. 38,500. To arrive at a true statement of income it is necessary, therefore, to deduct from the total receipts of Rs. 3,35,187 the sum of Rs. 16,499 on account of the difference between the amount of current supplied at 5 annas a unit for street lighting as against an amount calculated at 3½ annas a unit. This gives the true income in 1931 as Rs. 3,18,688.

244. The expenditure for 1931 on a commercial basis was Rs. 2,33,200 divisible as follows :—

Recurrent	...	...	...	...	...	...	...	Rs. 1,98,500*
Provision for pensions	...	...	...	...	...	...	...	21,000
Rent of Quarters and Offices	...	...	...	...	...	...	...	11,200
Treasury and Audit services...	...	...	...	...	...	...	...	2,500
								<u>Rs. 2,33,200</u>

NOTE\*—No proportion of the overhead expenses on higher direction and supervision has been charged to the wireless, telephones and workshop branches of the Department, so that the debit for recurrent expenditure is on a slightly higher side than it should be.

To this figure of Rs. 2,33,200 must be added provision for interest on capital and sinking fund. The capital is Rs. 20,24,933 and unallocated stores amount to Rs. 1,32,500. It will be fair to take 7% for interest on capital and sinking fund on the actual capital and 5% for the same purpose on

unallocated stores, which gives Rs. 1,41,745 and Rs. 6,625 respectively. In other words, the true income is Rs. 3,18,688 against an expenditure of Rs. 2,33,200 plus Rs. 1,48,370 on account of interest etc., or a total of Rs. 3,81,570. There was, therefore, a deficit of Rs. 62,882.

The unofficial criticism that the undertaking was being run at a loss judged by commercial standards is, therefore, well founded, as the present Treasurer had, in fact, already reported.

245. As the result of the assumption that the Electricity Department was showing a profit, charges for current and power have been several times reduced until they are now unjustifiably low. The present rates are 6 annas a unit for lighting, 3 annas for domestic power, 1 anna for cooking and water heating, Rs. 10 per month for refrigerators and 4.8 annas for street lighting. For industrial purposes Rs. 5 per maximum demand in horse power and  $\frac{1}{2}$  anna per unit consumed up to a maximum of  $2\frac{1}{2}$  annas per unit.

246. It is clear, therefore, that the present rates must be increased in order to make the service pay for itself, but any increase should be confined to private lighting, as additional charges for domestic power, cooking and heating, etc., would lead to much reduced consumption. Moreover, the Department, has purchased a stock of appliances such as fans, cookers, heaters and refrigerators of which a proportion might be left on its hands if, on account of increased charges, consumers relinquished using them. Their use, also, makes for health and comfort in a tropical climate and should be encouraged. I recommend, therefore, that the only service for which the charge should be raised should be for private lighting (including electric lamps in Government offices) which could well stand a higher rate of 9 annas a unit, or a fraction over 10d., as compared with 1s. 0d. a unit in Dar-es-Salaam and in Mombasa. After making an allowance of 10 per cent. for reduced consumption, this should produce an annual increase in revenue of Rs. 61,000, making a total income of about Rs. 3,80,000 in round figures against an expenditure of approximately Rs. 3,81,000. Taking into account the proportion of overhead costs, accounted for in recurrent expenditure, which should be properly charged to the other branches of the Department, this is quite adequate. It would, of course, be open to the local authorities to fix any sliding scale which they thought fit instead of a flat rate of 9 annas, or to increase charges for power or domestic appliances if they considered that preferable, so long as the income met expenditure worked out on a commercial basis. The rate of 9 annas may admit of reconsideration if the amalgamation recommended in paragraph 251 is carried out and if there are substantial economies in clerical staff.

247. I understand that a private company recently approached the Government with a view to the purchase of the electrical undertaking, a proposal which the Chamber of Commerce also put forward, their view being that the surplus balances of Government would thereby be increased and that, if charges were made just to cover expenditure no loss would accrue to revenue. No terms were quoted by the company making the offer, and nothing was said about the rates to be charged. Unless, therefore, some provision was made to safeguard consumers, it is probable that the public might suffer as the result of the transfer to a private company especially as the service, which is admitted by all to be most efficient, could hardly be improved. Provided that income covers expenditure on a commercial basis there would be no particular advantage in disposing of the undertaking unless the terms offered were really attractive; but the door should not be shut on the possibility of transferring the department to private enterprise, if the conditions were favourable to Government and to the public. It should be noted, however, that if such transfer took place the Government would have to retain at least one of the staff as a Government inspector of electrical work as well as a staff for telephones and wireless.

248. *Wireless*.—The estimated expenditure on this branch of the Department in 1932 is Rs. 28,000 and the estimated income from messages which are paid for is Rs. 9,000. All messages sent on state service are free and, if costed on a commercial basis, would produce about Rs. 34,000. After taking into account supervision charges and other charges for pensions, audit, etc., a small nominal profit would be left.

The only comment I have to make is in connection with the employment of one operator who is kept solely to receive the British official wireless press at a cost, in wages, of approximately £150 per annum. In my note under "Miscellaneous Services" I have suggested that it is unnecessary both to subscribe to Reuter's Agency and to keep an operator for the purpose of the Rugby Press. One should be discontinued.

249. *Telephones*.—The Electricity Department runs the telephones in Zanzibar. In Pemba this service is maintained by the Public Works Department. The income from telephones in Zanzibar was £1,777 from Government and £663 from private subscribers. The estimated income in 1932 is Rs. 25,000 from the former and Rs. 10,000 from the latter, the estimated expenditure being Rs. 11,500 to which Rs. 5,300 should be added for interest on capital and allowance for replacement, if commercial costing is adopted, making a total expenditure of Rs. 16,800. A Committee is sitting to enquire

into the number of official telephones in use and the possibility of obtaining additional private subscribers, but if any appreciable number of new subscribers are to be attracted, the rates would have to be lowered by at least fifty per cent., which would be uneconomic, and £700 spent on a new exchange. Few Indians would avail themselves of the service and probably no Arabs, and while small extra revenue might be derived from public call boxes in the country areas the difficulty is that there are no appropriate coins.

250. *Workshops.*—I have recommended in my note on the Public Works Department that the workshops of that department should be closed down and that the work should be taken over by the Electricity Department Workshops. The latter will require no extra permanent staff, although at times when there is a rush of work it may be necessary to engage additional temporary assistance.

251. *General Notes on Staff, etc.*—A suggestion was made by unofficial bodies that the existence of a separate department for electricity and wireless services was unnecessary and that the department should be combined with the Public Works Department. Their suggestion appears to be quite feasible and would result in the elimination of the post of the Director of Electricity and Wireless, the present holder of which has reached pensionable age. It would still be necessary to maintain a European establishment of three, namely, a competent engineer for the running of the Power Station, another for outside electrical work and repairs, and a third, corresponding to the present Assistant Director of Electricity for general direction of services, technical advice on matters of policy and for relief purposes. The Director of Public Works would exercise general supervision, the staff being under him for disciplinary purposes, though he would, presumably, act in technical matters on the advice of the electrical engineers. I recommend that this change be made as soon as opportunity offers. Apart from the economy effected, it would facilitate the combination of the Public Works Department and Electricity Workshops which would then come under unified control.

252. The only other matter requiring comment is the item of Rs. 15,710 included in the Protectorate assets as unallocated stores for the old Bububu railway. These consist of unsaleable spares of rolling stock, etc., for which, since the abolition of the railway, no use can be made. They should be written off from the statement of assets.

#### PENSIONS.

253. Paragraph 8 of this Report deals with the prospective increase during the next five years of the liabilities under the heads of pensions and gratuities and paragraphs 37 and 42 put forward certain general considerations relating to the grant of pensions to the European and non-European staffs respectively.

254. Wider issues are raised by a non-official proposal that, in future, pensions should be on a contributory basis. If financial stringency continues the proposal deserves consideration, but it is not one which Zanzibar could entertain independently of the other East African Governments.

255. The funding of pension liabilities is another question to which some consideration has been given. The advantages would be substantial, more especially by providing against the tendency to increase recurring commitments without taking into account the automatic increase in expenditure under pensions. This increase must continue so long as stability has not been reached, a position from which all the Territories are still far removed. I understand, however, that the creation of a central pension fund for unified branches of the Colonial Service which would be financed by the various colonies by regular annual contributions, is already under consideration as regards the European *personnel* so that it is unnecessary to deal further with this question in a local report.

The actuarial basis of a European scheme could be readily obtained but the annual contribution would be a heavy one on a basis of 18 $\frac{3}{4}$ % of salaries. So far as the Asiatic staff is concerned, it would be very difficult to arrive at an actuarial basis and the alternative of a provident fund, contributory or non-contributory, would appear to be preferable for future entrants into the service.

256. In this connection I have given special consideration to the recently introduced Widows' and Orphans' Pensions Fund as furnishing a good illustration of the complexities attendant on a joint scheme for European and Asiatic beneficiaries and of the cost of funding any scheme of pensions. The present arrangement is, in any case, an unsatisfactory one by which Government makes an illusory profit which will, before long, be replaced by a loss, more especially as regards the Asiatic and Arab beneficiaries for whom the scheme is not on a sound actuarial basis.

Both the European and non-European officers' schemes make provisions for benefits which are based on a contribution term of 30 years, or ending at the age of 50 years, and on an assumed rate of interest of 8%. The tables are subject to periodical revision by an actuary appointed by the Secretary of State, after investigation of the health statistics which are maintained in connection with the schemes.



The regulation of pension rates apparently does not affect the liability of the Governments concerned to provide benefits equivalent to the monies received by way of contributions, accumulated at 8% compound interest with yearly breaks, and the following estimates are based on this assumption.

257. Appendix X gives the history of Zanzibar's participation in the European scheme from the time of its inauguration until the commencement of the year 1932, when the capital liability of Government represented by accumulated contributions after the deduction of benefits paid amounted to Rs. 4,44,093. If the scheme were funded it would be necessary to provide for (1) the liquidation of this capital sum, allowing for the accumulation of interest at 8% per annum; (2) the payment of the annual amounts represented by the differences between the actual interest earned by the funded annual contributions and the interest assessed at the assumed rate of 8%. The annual cost of funding the scheme must depend on the period for which it is allowed to run, and the following calculations are based on the assumption that the scheme would be wound up after the lapse of twenty years from the present time. They also assume that the actual rate of interest earned would be 4% per annum.

The sum of Rs. 4,44,093 representing the capital liability already accrued would, if accumulated at 8% per annum compound interest, amount to Rs. 20,69,886, for the liquidation of which it would be necessary to set aside annual payments of Rs. 69,500 to accumulate at 4%.

Assuming the continuance of annual contributions of Rs. 37,500, representing the aggregate of existing rates paid, Government would have to provide, by way of marginal interest charges, an annual amount representing the sum required to provide after 20 years the difference in the capital sum accumulated from annual payments of Rs. 37,500 at 8% and the capital sum accumulated from the same payments at 4%. The difference between the two sums is Rs. 6,00,000, and it would require an annual payment of approximately Rs. 20,000 to accumulate, at 4% per annum, a sum of Rs. 6,00,000 over 20 years. Under the conditions defined the cost of funding the European scheme would be about Rs. 89,500 per annum.

258. On the same basis the approximate cost of funding the non-European scheme—applying to Asiatics and Arabs but not to Africans—would be Rs. 12,200 per annum assuming that the annual contributions increased to Rs. 18,750 per annum.

259. On the funding of the schemes the revenue of the Protectorate would be relieved of the cost of benefits payable. In the estimates for 1932 the amounts provided for the payment of benefits under the two schemes are Rs. 4,920 for Europeans and Rs. 4,510 for non-Europeans.

260. A revision of the European scheme is not a matter for local action as it is established on an East African basis. The non-European scheme is a local one adopted by Government on the failure of the East African Administrations to agree on a common scheme. The policy of the Government was partly influenced by a desire to meet the wishes of the staff and the staff was, very naturally, influenced by a desire to be placed on a footing of equality with their European colleagues.

261. As the result of actual working a better understanding of its provisions has been obtained. On the one hand its actuarial basis is unsound as it is based on the same expectation of life as in the case of Europeans and does not adequately take into account the differences of marriage customs. On the other hand, its contributors and officers eligible to contribute have put forward a number of objections to its provisions. These include: (1) the fixing of the age of beneficiaries, being children, at 16 years for boys and 21 years for girls instead of the ages being in the reverse order as required by the marriage customs of certain sections; (2) the absence of any provisions enabling bachelors and widowers without beneficiaries to obtain a refund of their contributions in full; (3) the absence of a provision enabling a contributor to discontinue his contributions at any time and to claim a refund of contributions paid. The last two objections show that the fundamental conception of the scheme makes no appeal to the staff and, in fact, out of 460 employees eligible to contribute only 95 had elected to do so during the first year's operations.

262. The scheme is in itself by no means a simple one, but it presents special difficulties of administration in its application to the Asiatic and Arab staff. For example, a considerable number of contributors have been unable to produce documentary or other evidence of age, and difficulties also arise in determining whether claims to Arab descent are well founded.

The Secretary of State has advised as follows:—

“In order to prepare satisfactory monetary tables in respect of Asiatics an actuary would require as full and accurate information as possible, not only regarding the mortality experience of Asiatic officers but also regarding officers' wives and widows. Other important points to be taken into consideration would be the average effective period of contribution, the customary age of marriage, the average number of families, the tendency of widows or widowers to remarry, etc.”

Considering the heterogeneous character of the Asiatic and Arab staff and the widely differing social habits of its component elements, it is fairly certain that material adequate for a genuine actuarial revision will never be available, but as the law stands it requires the preparation of records of age, etc., and they are, in fact, under preparation.

263. Considering these difficulties and the want of general response on the part of the staff concerned, there appears to be a case, both on financial and general grounds, against the continuation of the scheme for non-Europeans.

The possibility might be considered of winding it up after making provision for the actual pensions payable, the balance of funds being distributed among the contributors in the ratio of their respective contributions.

264. A provident fund, or one of the various " money payment " insurance schemes which are gaining popularity, might be accepted by the staff as a suitable alternative. Any such scheme would provide smaller pensions, but many members of the staff would prefer a scheme which would both enable their widows to receive an annuity during their lifetime, and also leave the capital on which the annuity was based to their heirs.

265. So long, however, as the present system continues the security for pensions will lie in a proper appreciation of the probable increase in the demand under this head and the maintenance of the necessary balance between income and expenditure.

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\*\* CHAPTER IV.

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READJUSTMENT OF TAXATION AND RAISING OF ADDITIONAL REVENUE.

(a) CLOVE DUTY DETERMINATION AND STABILISATION.

266. The first and main question relating to clove duty is the determination of the rate at which it should be fixed and the period for which it should continue in operation. A connected problem of equal importance is that of the stabilisation, so far as possible, of the yield from the duty, and the fixing of the amount of the standard surplus balance and equalisation fund.

267. The history of the duty is a complicated one. In the year 1890 it stood at the figure of 30 % *ad valorem* sanctioned under the Treaty Agreements, but it was then reduced to 25 % *ad valorem*. This rate was collected in kind, and public auctions were regularly held of the proportion of the crop collected. The whole of the receipts were credited to the revenue until 1922, but from that year until 1928 a part of the duty assessed at approximately one-fifth was returned to the growers in the form of a bonus. In July, 1928, the bonus system was abolished and the rate of duty was reduced by one-fifth, i.e., from 25 % to 20% of the export value. At the same time the method of collecting the duty was altered to a system of payment in cash instead of in kind.

The alteration in the method of collecting the duty was effected by the "Customs Tariff (Amendment) Decree, 1928," under the following provisions :—

"The following duties corresponding to the duties heretofore levied in kind shall be levied and paid in current coin of the Protectorate for the benefit of the General Revenue upon the undermentioned products of the Protectorate :—

Clove and Mother of Cloves, 20 % *ad valorem* ;

Clove stems, 10 % *ad valorem*.

The value of cloves and clove stems in relation to clove duty shall be fixed from time to time by the British Resident by notification in the *Gazette*, and shall correspond as nearly as may be to the average price at which cloves and clove stems are for the time being offered for sale to overseas markets less the cost of packing, insurance and freight."

268. The export value, therefore, partly depends on the rate of duty fixed from time to time by the Resident and is not in any fixed proportion to the value in the local market.

This basis of assessment was adopted so as to avoid any appearance of an alteration in the essential character of the tax. The main objections to its application through the fixing of fluctuating values for duty purposes are :—

- (1) The difficulty of forecasting the price movements of a speculative commodity ; and
- (2) The interference with normal business occasioned by frequent changes in the rate of duty which have the effect of delaying shipments when a reduction of duty is anticipated and of expediting them under the reverse conditions.

269. With regard to the first objection, the difficulty is accentuated by the fact that, in order not to interfere with the normal course of business, it is necessary to fix the value for duty purposes three months before the date on which it becomes operative.

Two methods of fixing it have been tried. The first was to divide the seasonal year, which runs from July to June, into three four-monthly periods, viz., July to October, November to February, and March to June, and to fix the duty for each period on or about the 1st April, 1st August and 1st December respectively. This method was found to accentuate the evils referred to under (2) and during the two seasons 1920-30 and 1930-31, the duty was fixed for the crop year subject to the three months' notice required. With the advent of the economic upheaval, which added to the difficulty of gauging the trend of prices over so long a period as fifteen months, the first method was reverted to during the present crop year, i.e., July, 1931, to June, 1932.

270. The following table shows the variations in rates and the result :—

Period.	Exports Frasilas.	F.O.B. value Rs. (lakhs).	Approximate duty at 20 % <i>ad valorem</i> Rs. (lakhs).	Rate fixed by Govt. Rs. per frasila.	Duty paid Rs. (lakhs).
July to October, 1928 ...	113,000	27·27	4·94	3·40	3·84
Nov., 1928, to Feb., 1929 ...	92,000	27·26	5·04	3·60	3·31
March, 1929, to June, 1929 ...	47,000	14·46	2·68	5·60	2·63
	252,000	68·99	12·66		9·78
July, 1929, to June, 1930 ...	748,000	140·82	24·79	3·30	24·68
July, 1930, to June, 1931 ...	352,000	74·01	13·22	4·50	15·84
July, 1931, to Oct., 1931 ...	308,000	38·76	6·37	2·40	7·39
Nov., 1931, to Feb., 1932 ...	415,000	54·14	10·85	1·80	7·47
March, 1932 ...	8,000	1·06	·20	3·00	·24
	2,083,000	377·78	68·09		65·40
		<i>Rate</i>	3·27	<i>Rate</i>	3·14

It has been more by good luck than good management that since the adoption of cash payments the aggregate duty actually brought to account has corresponded fairly closely to the aggregate legal exaction at 20 % *ad valorem*.

The experience of the present year has enforced the lesson taught in 1928 and 1929 that frequent changes of rates are very harmful in encouraging speculation and interfering with the course of normal business. Since the raising of the duty in March, 1932, the exports have been negligible.

271. The first conclusion is, therefore, that the rate should be fixed for at least a year and, as three months' notice is necessary of any change and the prospects of the crop may be fairly well anticipated in April, the year to be taken should be the crop year running from July to June. If possible, however, the rate should be fixed for a longer period such as three years.

272. The remaining questions to be considered are the rate at which the duty should be fixed and the income which should be accepted for normal budget purposes as the stable income from this source.

The yield from the duty depends partly on the exports and partly on the F.O.B. price, which again is partly dependent on the rate of duty fixed. Exports depend primarily on the amount of the crop, but the correspondence is by no means exact as may be seen from the figures given in Appendix XI.

That statement gives the total yield of cloves harvested from 1913 to 1931, both for the crop and for the calendar years, with the corresponding figures for exports. Diagrams I and II, drawn up by Mr. Walter, Statistician to the Conference of East African Governors, show the results in the form of graphs with hand smoothing. The figures indicate that over the ten-year period the level of production has been maintained with a tendency to increase, but that this is partly due to the unusual circumstance that there was no failure of crop between 1924 and 1927. It has been suggested that this series of good crops was the result of the greater care of the plantations consequent on the bonus on bearing trees, but the suggestion does not appear to rest on any substantial basis and was not accepted by Professor Troup. The operations of trade have, therefore, resulted in the fluctuations in exports being markedly less than the fluctuations in production, and over short periods exports have tended to level up. In Mr. Walter's opinion it would not be safe to take a higher figure for average exports than 550,000 frasilas, and I propose to accept this figure as the normal. With the export figures may be compared the following figures for exports from Madagascar during the period 1921 to 1931 :—

Year.	Exports.	
	Metric tons.	Frasilas.
1921 ...	636	40,000
1922 ...	173	10,800
1923 ...	757	47,600
1924 ...	561	35,300
1925 ...	858	54,000
1926 ...	795	50,000
1927 ...	366	23,000
1928 ...	1,390	87,500
1929 ...	596	37,500
1930 ...	1,587	99,900
1931 ...	3,000	189,000

The Madagascar crop is harvested during the period October to December and there is believed to be little carry over from year to year. These figures may, therefore, be taken as representing the

production of cloves in Madagascar, except for the small quantity used to supplement stems and leaves in the manufacture of clove oil. The largest export, that of 1931, represents 27 % of the Zanzibar exports in the same year, and the possibilities of a glut in the market from the coincidence of large crops in Madagascar and Zanzibar cannot be ignored in fixing a figure for surplus balances. So far, however, the other factor affecting the returns from clove duty has not been taken into consideration, namely, the F.O.B. price.

273. The frequent changes of system in levying the duty have made it impossible to reduce the figures over a series of years to an exact common basis, but it is possible to ascertain with a fair degree of accuracy the duty which would have been assessed over a series of years had the present cash system been in force. The legal definition of the value of cloves for purposes of duty is intended to mean the Zanzibar ex godown duty-paid price at the time of sale to overseas markets, or, in other words, the F.O.B. value less expenses incidental to the operations of packing the cloves, and placing them on board ships. These expenses may be taken at 45 cents. per frasila. The present value for duty per frasila is reducible in theory to a value expressed by the formula  $\frac{20}{100}$  (F.O.B. value per frasila less 45 cents), and the F.O.B. values having been recorded while the duty in kind system was in force, it is possible to assess fairly closely the duty which would have been assessable in former years. Appendix XII shows the rate of duty per frasila which would have been payable on the present basis and rate of assessment over the period 1913 to 1931. It is a remarkable coincidence that the average theoretical rate for this period corresponds so closely with the Rs. 3.14 per frasila, the average actually paid since the new system came into force.

It is necessary to assume that, had the duty been payable at the time of export instead of a considerable time (taking the average of shipments) prior to export, the F.O.B. price would have remained the same.

That, in fact, the time when the valuation was made had a considerable effect on its amount, owing to the violent fluctuations of the market, may be concluded from a comparison of the figures in Appendix XII with the figures for the actual yield from the duty in the same years given in Appendix XIII. In considering the latter allowance must be made for the reduction in the percentage levied from 25 % to 20 % in 1928. Appendix XIII also compares the estimated with the actual yields for those years as an illustration of the difficulty in making any forecast as to the future courses of the clove market. Diagram III shows in graph form the value of clove exports. It is not altogether comparable with the figures in Appendix XII, as the deduction at 45 cents per frasila has not been made, but it illustrates clearly the rapid fluctuations in value during a season. The local market rate for cloves is now under Rs. 9 per frasila, though very little business is likely to be done before June, and it is, therefore, not very much above Rs. 8, which is ordinarily accepted as the economic cost of growing and marketing, including an allowance for interest. The present rate of duty, viz., Rs. 3 per frasila, is, therefore, high, and though an accurate forecast is impossible it seems unlikely that the high prices which have been reached during the last few years will be repeated. It is more probable that prices will tend towards those prevailing during and before the war. A rate of duty intended to be operative over any considerable period should therefore be as low as is compatible with the receipt of an amount under clove duty—assuming an average crop—as will, taken with other receipts, provide an adequate budget surplus.

274. On this basis I recommend that the rate should be fixed at Rs. 2.50 per frasila and that this rate should stand for three years. This is on the supposition that the financial position does not deteriorate seriously within that period. The whole position would have to be reviewed before the end of the three years taking into account any developments in connection with the Madagascar competition or with synthetic products.

275. Taking a normal crop at 5,50,000 frasilas this will return Rs. 13.75 lakhs as compared with Rs. 15.50 lakhs in the estimates for 1932, and Rs. 16.50 lakhs accepted as a normal in the first Chapter of this report. If, however, the economies proposed are effected and the income from other sources increased as recommended in paragraphs 292 to 302 of this report, the budget surplus will still stand at Rs. 3.53 lakhs with receipts from clove duty on the scale suggested above.

276. Should the exports exceed 5,50,000 frasilas the receipts in excess of Rs. 13.75 lakhs should be added to the surplus balances for the purpose of forming an equalisation fund in addition to the fixed minimum balance of £225,000. As regards the figures to be aimed at in this equalisation fund it does not appear to be necessary to provide against a calamity on the scale of the hurricane of 1872. It will be adequate if this additional reserve is sufficient to provide against two bad seasons in succession affecting primarily the receipts under clove duty and under import duties.

277. The figures in Appendix XII shew that the smallest quantity of cloves exported in any one year was 246,348 frasilas in 1920, approximately 3 lakhs of frasilas below the accepted normal

of 550,000 frasilas. Two years of this type in succession would, at the rate of Rs. 2.50 per frasila, involve a loss of Rs. 15 lakhs to which may be added Rs. 5 lakhs to cover losses in import duties. An equalisation fund of £150,000 should therefore be adequate to cover losses under these heads. Adding £25,000 for losses under other heads, the total reserves may be maintained at £400,000, apart from the requirements for working capital. This is much below the figure of £750,000 suggested by the Chamber of Commerce, but appears to be adequate for all ordinary purposes. Major calamities would have to be met in other ways.

278. As compared with the average rate of duty levied since 1928 (i.e. Rs. 3.14) the fixing of the rate of Rs. 2.50 represents a considerable readjustment of taxation by relieving the section of the community engaged in the production of cloves. The actual relief would however probably be considerably less, as prices, and therefore probably rates of duty, appear to be likely to rule lower in the future. The question therefore suggests itself whether this relief will in fact find its way to the producers. The answer to this question will largely depend on the methods of the clove market which will be dealt with in considering the Clove Growers' Association, but the facts adduced in paragraph 365 tend to show that as matters now stand the methods of marketing tend to favour the consumer rather than the producer. No very confident statement can be made as to the incidence of the tax and in fact it probably varies from time to time, but even if the relief afforded by a reduction of the tax goes to the consumer experience appears to show that a fall in prices does result in an increase in consumption in the main clove markets and is therefore ultimately to the advantage of the producer. It also assists him in meeting the competition either of Madagascar or of synthetic products. The position of the producer will be improved if a strong Clove Growers' Association comes into existence as suggested later on and the fixing of the rate of duty for a substantial period removes one of the incentives to the gambling which is so prominent a feature in the clove market.

(b) CLOVE DUTY DRAWBACK.

279. The second of the special problems connected with the clove industry requiring consideration is that of the clove duty drawback instituted under the provisions of the Customs Management Decree 1926, and amending Decrees in 1928, 1929 and 1930. It came into actual operation on 24th August, 1928.

The drawback system was instituted "because it was feared that the substitution of a synthetic process in the manufacture of vanillin for the use of cloves would affect so prejudicially the Zanzibar clove markets that great difficulty would be experienced in providing other remunerative outlets for cloves produced in the Protectorate."

280. It is unnecessary to reproduce the history of the drawback and it is enough to summarise the present position which appears to be as follows.

It is stated, though not on very convincing grounds, that at one time as much as one third of the cloves exported from Zanzibar was used in the production of vanillin. The total quantity exported under the drawback system during the last three years was as follows :—

1929	...	...	...	...	13,155 Bales
1930	...	...	...	...	14,004 "
1931	...	...	...	...	8,600 "

The proportion of the crop exported for this purpose has therefore fallen to about 9% or less. The export is now in fact practically confined to one company in America. British manufacturers are no longer in the market. The annual payments under the drawback system have averaged about £11,000 and the provision in the budget estimates for 1932-33 is Rs. 1,50,000. This is a heavy expenditure and its continuance would require to be justified by clear evidence of corresponding advantages to the industry. The balance of local opinion both among growers and exporters, is strongly against its continuance.

281. The purpose of the drawback was to enable the manufacturers of vanillin to utilise a portion of the clove crop and thereby to assist, more particularly in times of depression, in keeping the price of cloves at a higher level than would otherwise be possible.

Whether it has, in fact, fulfilled this purpose is particularly difficult to ascertain because of the abnormal conditions which have prevailed in the markets of the world since the system was introduced and which are still very marked in the principal market in America. Speculation must play a large part in discussions on this subject.

282. The argument in favour of the drawback has been put to me as follows by a competent authority :—

“ When the drawback system was introduced the speculative element was removed from the London market as the concessions were given only to the actual users and not to the London middlemen who previously held the stocks and speculated in them. The result was to isolate their stocks and so raise the price for the time being. While the vanillin manufacturer is in the market he tends to maintain a high range of prices. He *must* get his cloves but is prevented by the risk of the market from getting them except at a price which will give him the full extent of the drawback. The general tendency is therefore to raise prices to that extent.”

283. This argument has been reinforced by consideration connected with the manufacture of vanillin from eugenol. The impression derived from the correspondence with English manufacturers is that they have been able to maintain to some extent a market for eugenol vanillin and that they hoped to be able to expand the market in the event of a fall in the price of cloves.

It is contended that this impression is borne out by the interest shown in the proposals for the distillation in Zanzibar of clove oil for the vanillin trade, and by the fact that vanillin manufactured from eugenol is in demand at a premium over vanillin manufactured from other raw materials. The drawback system, by helping to keep down the price of clove oil from other sources, is stated to have been of material value in fostering the market for vanillin made from eugenol. The drawback should, it is contended, be maintained because its removal will raise the price of cloves and with it the cost of producing eugenol vanillin. The assistance of the vanillin trade in maintaining clove prices in times of depression would be lost if the drawback is abolished, and the possibility of the scheme for the local distillation of clove oil (which must depend for its success on the co-operation of the vanillin manufacturers) bearing fruit would be jeopardised. In short, the drawback should continue as an inducement to manufacturers to continue their interest in clove oil and the scheme for its local distillation.

284. Local opposition to the drawback is based for the most part on the broad general ground that it involves paying a large sum annually for a very speculative advantage. It has not kept the market, nor could it do so while other demands have up to the present been great enough to absorb the whole crop. The vanillin manufacturers are only in the market for a short time, for a practically fixed amount, and any effect which their competition may have is, therefore, purely temporary. The stimulus afforded to prices is negligible compared to that of other factors and their market does not reach to a fall in prices in the same way as other markets.

285. The recent fall in price levels has been more than equivalent to any possible effects of the drawback and in particular the advantage given to America by England's going off the gold standard should have increased the American demand as it increased the demand from other countries remaining on the gold standard. There was in fact no such increase.

286. As regards the possible effects of abolishing the drawback on the scheme for the local distillation of clove oil it is contended that the abolition would in reality assist in the development of that branch of the industry. For success it will require the co-operation both of the manufacturers and of the local producers but so long as the drawback persists the former are uncertain as to the position, and do not therefore take the project into serious consideration.

287. The arguments on both sides are so largely matters of conjecture rather than of knowledge that it is difficult to arrive at any confident conclusions. On the balance, however, I consider that, regarding the problem as a part of the much wider problem of markets, there is not a sufficient case for maintaining the drawback against the weight of local opinion and at a considerable cost to the Territory. It should be abolished at an early date. The effect on the local market is in any case almost negligible compared with that of other factors, and so far as America is concerned the advantage which they still retain as a result of the Territory being off the gold standard is still more than equivalent to the drawback, though considerably less than it was at one time.

It is not apparent why its abolition should prejudice the development of the scheme for the local distillation of clove oil more especially as that scheme is based not on the distillation of oil from cloves but from leaves and possibly stems.

The scheme appears to be for the present in a state of suspended animation but it should now be taken up seriously as a possibly important adjunct in the growing competition with Madagascar and with the guaiacol and safrol vanillin industries. The history of the scheme may now be briefly dealt with.

## (c) CLOVE OIL DISTILLATION SCHEME.

288. Interest in this subject appears to have commenced with the visit of the Zanzibar Director of Agriculture (Mr. Kirkham) to Madagascar in the year 1928.

He found that the distillation of essential oil from cloves (to a small extent), stems, and leaves was a well-established branch of the industry which had increased greatly of recent years.

Distillation was carried out in a number of small stills and the total amount of oil produced approached 100 tons, or about one third of what the market could absorb. The distilleries were also used for the production of other essential oils including more especially Ylang-ylang, cinnamon and lemon grass. It is unnecessary to trace the history of the subsequent discussions in the present report but the present position appears to be as follows.

289. If distillation of oil from leaves is to be carried out it must be in Zanzibar and not by the exportation of leaves for distillation elsewhere. Clove stems are already exported for distillation abroad more especially in Hamburg.

Local distillation would have the best prospects of success if carried out by a combination of manufacturing, commercial and producing interests the latter probably working through the Clove Growers' Association which will be dealt with in later sections of this report.

290. The Arab Association, which may be taken as representing the present feeling of the producers, is opposed to any scheme of distillation, on the grounds that it may injure the trees, affect the clove market prejudicially, and interfere with the supply of labour. The main ground for their opposition is probably the suspicion that the distillation project is merely a method of exploiting them in the interests of manufacturers overseas.

Their views could probably be brought round but it is clear that, apart from the question of markets and of possible obstacles from export duties on clove oil, the carrying out of the project will involve the consideration of a number of complicated problems. These include the availability of water and cheap fuel, the prevention of damage to the clove trees either directly, or indirectly by the removal of the fertilising effects of fallen leaves; the organisation of labour so as to avoid difficulties in the clove picking season; the cost of production and the possibility of supplementing the production of clove oil by other essential oils; the maintenance of control over the new industry and of preventing indiscriminate harmful competition while avoiding monopoly.

291. It is unnecessary to do more than state some of the problems and to add that their existence should not prevent a practical test on a commercial scale of the possibilities of developing this important subsidiary branch of the clove industry. Representations made to me show that such a test can be organized provided that conditions acceptable to the interests both of the producers and of the manufacturers can be agreed on and no reason is apparent why this should be impossible. The competition of Madagascar should be met in this as in other fields.

## (d) SOURCES OF ADDITIONAL REVENUE AND SUMMARY OF RESULTING FINANCIAL POSITION.

292. The first Chapter of this report gives a brief analysis of the present financial position of Protectorate and of its sources of income.

It shows that of the Rs. 38½ lakhs of income derived from taxation Rs. 15½ lakhs is indirect taxation derived from a general import duty of 15% *ad valorem* paid by all consumers, and no less than Rs. 16½ lakhs is on account of clove duty paid by a special class of producers except in so far as the burden may be shared by other parties to the clove industry or can be shifted to consumers abroad. Further, the income from this duty is of a very variable character as a result of the uncertainties both of the crop and of the market, and introduces a very large speculative element into the finances of the Protectorate, more especially as the receipts from import duties tend to vary in the same direction as those from clove duty.

293. This cannot be regarded as a healthy condition of financial affairs and it is clearly desirable to modify the system of taxation in such a way as not only to produce the additional resources found to be necessary but also to distribute the burden of taxation more fairly and to reduce the dependence of the budget on very speculative elements. At the present time the commercial and official communities pay practically no taxes except a proportion of the import duties.

294. The first step is, however, to ascertain the extent of the economies which appear to be possible in the expenditure and the following table summarizes for each department the reductions in expenditure which can be effected by the year 1933 as well as the ultimate economies as the final result of the proposed alterations.



Nature of Economy.	Estimated Saving and date on which it can be effected.			Remarks.
	1933. Rs.	1934. Rs.	Later. Rs.	
	**			
<b>ADMINISTRATION.</b>				
Reduction of 4 Officers ... ..	—	—	43,200	One Provincial Commissioner retiring, one officer at £840 and two at £600 taken as normal casualties.
Abolition of Stables ... ..	5,000	—	—	Rs. 2,448 remain under this vote for such purposes as may be found desirable.
<b>PORT AND MARINE.</b>				
Abolition of post of Pilot and Harbour Overseer.	5,400	—	—	Holder is due for pension.
<b>GOVERNMENT PRINTING PRESS.</b>				
Abolition of post of Assistant Printer on promotion of present holder to post of Government Printer at a salary of £600 by £30 to £720 ...	10,161	—	—	Government Printer is retiring in 1932.
Economies in stationery and printing	2,000	—	—	—
<b>MISCELLANEOUS.</b>				
Reduction in contributions to scientific institutions.	—	—	6,200	A reduction of 20% in the amounts now granted to scientific institutions is recommended when the time arrives for their renewal.
Reduction of allowance to Immigration Officer.	466	—	—	—
Abolition of Language Allowances ...	2,000	—	—	—
Rent of Houses ... ..	25,000	—	—	Less houses required if reduction of European staff recommended in the Report is effected and if rents are reduced when due for renewal.
Abolition of allowance for Arabic news column in <i>Gazette</i> .	300	—	—	—

Nature of Economy.	Estimated Saving and date on which it can be effected.			Remarks.
	1933. Rs.	1934. Rs.	Later. Rs.	
<b>JUDICIAL.</b>				
Suspension of post of Chief Justice	21,333	—	—	Present holder is believed to be about to retire.
Reduction in the number of Kathis...	8,040	—	—	Proposed by the Acting Chief Justice. Amount saved depends on the personnel retrenched.
<b>POLICE AND PRISONS.</b>				
Abolition of post of Assistant Commandant.	12,267	—	—	Present holder might be offered a transfer.
Abolition of post of Chief Instructor	6,400	—	—	Already decided on by Commandant of Police.
Abolition of post of either Pay or Quartermaster	4,200	—	—	—
Reduction of Police Force by one-quarter, as opportunity offers in the next two years involving savings which may be estimated, roughly as follows :—One Superintendent, 3 Inspectors, 140 Non-Commissioned Officers and men, Criminal Investigation Staff, other charges on passages, house allowance, uniforms, equipment, stores, etc.	36,000	33,000	—	—
<b>MEDICAL.</b>				
Abolition of post of Deputy Director of Sanitary Services.	16,000	—	—	Present holder has reached age of retirement.
Abolition of post of Sanitary Inspector in Pemba.	6,856	—	—	—
Abolition of post of one Veterinary Officer and two Cadets.	6,810	—	—	—
Reduction of Mosquito Brigade by one-quarter.	1,900	—	—	—
Reduction of Rat Brigade by one-half	900	—	—	—
Abolition of two posts of Sanitary Inspectors.	3,200	—	—	—

Nature of Economy.	Estimated Saving and date on which it can be effected.			Remarks.
	1933. Rs.	1934. Rs.	Later. Rs.	
••				
<b>EDUCATION.</b>				
Abolition of post of Superintendent of Industries.	11,200	—	—	—
Sundry other economies connected with technical and tailoring shops.	4,800	—	—	—
<b>PUBLIC WORKS.</b>				
Abolition of post of Assistant Director.	13,334	—	—	Present holder is about to retire.
Abolition of post of Temporary Assistant Engineer.	6,798	—	—	Temporary post only.
Abolition of post of Architect ...	10,400	—	—	Holder should be retrenched and pensioned.
Reduction in pay of Superintendent of Water Works on occurrence of vacancy.	2,450	—	—	Present holder retires shortly.
Abolition of post of Mechanical Superintendent.	6,400	—	—	Present holder should be retrenched.
Abolition of post of Mechanic ...	4,800	—	—	Already decided upon.
Closing down of Workshops ...	7,608	—	—	—
Estimated net savings on abolition of Public Works Department Transport Branch.	10,000	—	—	A great part of the actual savings will be spent on mileage allowances to officers using their own transport for official journeys. The sum of Rs. 10,000 estimated is a conservative estimate of indirect savings.
Other general savings by the adoption of a care and maintenance policy in Public Works	35,000	—	—	—
Closing down of the Survey branch, leaving provision for completion of survey of Zanzibar town.	50,000	—	—	—
<b>POST OFFICE.</b>				
Reduction of inspections by Tanganyika officials.	900	2,667	—	—

Nature of Economy.	Estimated Saving and date on which it can be effected.			Remarks.
	1933. Rs.	1934. Rs.	Later. Rs.	
<b>AGRICULTURE.</b>				
General savings by abolition of Plantation Rangers, economies on plantations and reduction of expenditure on Public Gardens.	15,000	—	—	No detailed estimate possible until it has been decided what Government plantations should be retained.
<b>ELECTRICITY AND WIRELESS.</b>				
Abolition of post of Director on amalgamation with Public Works Department.	17,400	—	—	Present holder has completed 20 years' service.
Reduction of one post of Wireless Operator now kept for the purpose of the Rugby Press.	2,020	—	—	As an alternative the subscription to Reuter's service can be given up.
<b>GENERAL STAFF SAVINGS.</b>				
By reduction in number of passages consequent on reduction of staff and by extension of the tour of service.	20,000	—	—	—
Restriction of Acting Allowance to Heads of Departments.	12,000	—	—	—
Restriction of Overtime Allowances to Customs, Post and Printing Departments.	5,100	—	—	—
<b>CLERICAL STAFF COMMITTEE'S REPORT.</b>				
Estimated savings on salaries and house allowance.	25,000	25,000	—	—
<b>TOTAL ...</b>	<b>4,34,443</b>	<b>60,667</b>	<b>49,400</b>	

295. The statement shows that of the total ultimate economies of approximately Rs. 5.44 lakhs, about Rs. 4.34 lakhs can be brought into effect by the year 1933 and Rs. .61 lakh by 1935. To this may be added a reduction of Rs. 1.50 lakhs by the proposed abolition of the clove duty drawback. On the other hand additional expenditure of approximately Rs. 35,000 may be required on account of the Clove Growers' Association if the proposals made in paragraphs 367 to 380 are accepted. The net savings would thus be approximately Rs. 5.50 lakhs in 1933 of which as stated in paragraph 11, Rs. 50,000 should be set aside for special expenditure so reducing the net saving to Rs. 5 lakhs. This does not allow for carrying into effect the proposals made recently by a Committee for the abolition of market dues in the general interests of trade and in any case this would not involve more than about Rs. 15,000 because it appears to be impracticable to abolish the dues in the Central Markets.

296. The statement in paragraph 13 shows an estimated deficit of Rs. 2.89 lakhs in 1933 without consideration of any new or extended services. The margin available for additional recurring expenditure or to cover variations in income is, therefore, a narrow one.

297. The proposals already put forward for increasing the public income include the following :—

	Paragraph.	Additional Income. Rs.
(1) Customs ... ..	74	1,00,000
(2) Raising the rate for electric current ...	246	61,000
(3) Raising Steamer fares ... ..	80—81	15,000
(4) Increase in postal rates ... ..	240	12,000

298. In addition to these an additional income of approximately Rs. 40,000 should be derived from minor sources set out in Appendix XIV and of Rs. 25,000, from the tax on native huts proposed in paragraph 332. These changes are, however, of little assistance in the directions of redistributing the burden of taxation and reducing the dependence of the budget on speculative elements, both of which appear to me essential to placing the finances of the Protectorate on a sound basis.

299. An increase in taxation on the important elements in the Community now practically exempt, is, I consider, the proper solution of these problems and the best way of effecting it appears to be by the imposition of a system of Trade Licences of the same general description and with similar rates to that imposed in Tanganyika Territory. The yield of such a tax is estimated at Rs. 1 lakh. It should be supplemented by a decree for the Registration of Business Names, both as a necessary step in the working out of a system of Trade Licences and also for the purpose of checking the abuses of the bankruptcy proceedings which appear to amount to a scandal in the lower commercial circles.

300. In paragraph 24 I have pointed out that the introduction of a system of Trade Licences should be accompanied by a levy on official salaries so that Government servants may bear their share of the additional burden. The needs of the Protectorate are not, as yet, great enough to require a levy on salaries on quite the same scale as the mainland, a scale which would, moreover, be out of proportion to the average percentage of income taken by Trade Licences. I therefore propose a levy of 5% on all salaries over Rs. 150 per month. This would yield Rs. 97,000 with an establishment on its present basis and approximately Rs. 85,000 if the establishment is reduced as proposed in this report. A sliding scale is not proposed, though this obtains in the mainland Territories, because a uniform levy corresponds more closely to a system of Trade Licences and the practice on this point varies in the different Colonies.

301. I have considered the alternative of a general Income Tax but do not consider it practicable in the circumstances of Zanzibar. In the first place, agricultural income would have to be excluded as already subject to the very heavy clove duty and moreover, exceedingly difficult to ascertain. In the second place a large proportion of the tax would fall on the Indian commercial community. An Income Tax can be imposed on them as Indian practice has shown, but even after long experience of the working of the tax in India evasion is extensive and Zanzibar has no officials with the special qualifications and knowledge required for dealing with Indian accounts. The Income Tax levied in Kenya in 1921 had to be abolished within two years though its administration was under the direction of an officer seconded from the Inland Revenue Department in England. The Tanganyika Government has also taken the view that an Income Tax is unworkable.

302. The total additional revenue from these various sources may be estimated at Rs. 4.37 lakhs, raising the margin of income over expenditure, if all the proposed economies are carried into effect, to Rs. 6.48 lakhs in 1933 and approximately the same figure in 1935, setting off additional economies against additional expenditure on pensions.

This seems a large margin at first sight but it is based on an estimated yield of Rs. 16.50 lakhs from clove duty, and in paragraph 276 reasons have been given which appear to me to establish the necessity of limiting the estimated yield from that duty to Rs. 13.75 lakhs, any additional receipts being added to a reserve fund until that has reached £400,000 a figure sufficient to provide against all ordinary contingencies.

The available margin would thus be Rs. 3.73 lakhs which will be further reduced to Rs. 3.53 lakhs by the sinking fund proposed in paragraph 313 for the replacement of the electrical generating plant. This is not a large margin to cover both variations in income and all expansion of recurring expenditure in connection with either the development of a Native Policy or expansion in the Medical services or in Education.

The existing conditions make caution necessary, more especially as regards the receipts from import duties and from clove duty, and it is too early to forecast the possible effects of any trade revival, more especially as its results might be somewhat slow in reaching Zanzibar. The essential point to be borne in mind is that the proposals in this report are put forward as a connected scheme. If any substantial proportion of the proposed economies is considered impracticable, or if any important section of the suggestions for new taxation is rejected, the whole financial position will require a fresh examination.

Either alternative proposals will have to be put forward, or the Government will have to be content to abandon all idea of large schemes of development whether Agricultural, Medical, or Educational.

## CHAPTER V.

## MISCELLANEOUS FINANCIAL QUESTIONS.

## (a) METHOD OF INVESTMENT OF SURPLUS BALANCES.

303. A question which has been referred to me for opinion is whether there is any reason why the Zanzibar Government should not adopt the usual practice followed by Colonial Governments of entrusting the whole of the surplus balances available for investment to the Crown Agents for the Colonies.

304. The statement in Appendix XV summarises the history of these investments up to the present time. Sterling investments have always been in the hands of the Crown Agents and it is only necessary to consider the dealings in rupee securities. In 1922 an amount of Rs. 31,52,000 was invested in 6% bonds, 1927, and in 1924 a further amount of Rs. 9,00,000 was invested in the same stock. There is nothing on record suggesting a reason for these investments which were made at a time when the rupee had attained a position of fair stability about Sh. 1/4d. after the violent fluctuations of 1920 and 1921. The transaction was, in fact, a satisfactory one as by the year 1925 the rupee had been steadied to a Sh. 1/6d. rate of exchange at which point it was definitely fixed in 1927.

305. An equally good case cannot be made out from the transaction which took place in 1927 when the proceeds of the maturing 1927 bonds were converted into 6% rupee bonds, 1932, at a price of approximately 108. These bonds had 5½ years to run before maturity so that depreciation over that period might have been expected to occur at the rate of 1.45% per annum giving a net interest yield of 4.55%. By the time the balance of these bonds have been disposed of, the actual net rate of interest received, after allowing for the amounts written off by way of depreciation, will be about 4.2%. The policy under which Government during the last two years has delayed the sale of securities necessary for the liquidation of the overdraft financed by the Crown Agents is open to criticism. As a policy it can hardly be defended on general grounds, though it has to be remembered that the Crown Agents were able, and were prepared, to finance the Zanzibar overdraft at the bank rate, the average of which was less than the rate of interest received from the rupee investments. It was when sterling departed from the gold standard and the Crown Agents called in their overdraft that the disadvantages of the over-invested position were felt. The liquidation of the overdraft could not be effected by the sale of the 6% bonds or of sterling securities, the price of which had reacted unfavourably to the disturbed monetary conditions, and the Zanzibar Government had to arrange for an advance of £30,000 from the National Bank of India, Bombay, at the Imperial Bank rate. Advantage has recently been taken of the improved condition of the money market in Bombay to dispose of Rs. 11 lakhs of the 6% bonds which were sold at a fraction over par, free of brokerage. The Bank's overdraft was liquidated and the Crown Agents placed in funds by the remittance of £38,600 at the favourable rate of Sh. 1/6½d. On the whole, therefore, the difficulties have been surmounted fairly successfully.

306. The present position is that the accounts both with the Bank and with the Crown Agents are in credit and there is an unsold balance of 6% bonds amounting to Rs. 7,23,000. These bonds mature in October next.

With the minimum balance fixed at Rs. 30 lakhs this sum should remain available for investment in securities. The point for decision is whether the proceeds of the bonds should be transferred to the Crown Agents for investment at their discretion or whether they should be reinvested in rupee securities. Taking into account the present position as regards rupee-sterling exchange and the advantages attaching to the expert management which the Crown Agents are able to command I recommend that the Zanzibar Government should follow the usual practice followed by Colonial Governments of entrusting the whole of the surplus balances available for investment to the Crown Agents.

## (b) PROPOSALS RELATING TO SURPLUS BALANCES.

307. Apart from the question of the method of investment of the surplus balances the use which has been made of them and the figure at which they should be maintained have been the subject of several representations more especially by the Zanzibar Chamber of Commerce and the Indian National Association.

308. These balances amounted to £274,000 in 1914 and increased during the war period to £576,000 in 1919. The period of expansion in expenditure then opened but a series of windfalls under the head of clove duty from 1922 to 1925 brought up the balances to their maximum figure of £675,000 in the latter year. Years of bad clove crops succeeded and coupled with the very heavy expenditure

on harbour works and on the programme of road construction reduced the balances to £263,000 at the end of 1930 and £219,000 in 1931. This serious diminution in the available reserves was considered by the Secretary of State to endanger the financial stability of the Protectorate and resulted in the issue of directions in the year 1930 that the surplus balances should not be allowed to fall below a minimum of £225,000. At the end of 1931 they were therefore slightly below this figure though not as much below as had been expected owing to larger receipts from clove duty than had been anticipated and general economies effected during the latter part of the year.

309. The budget estimates for the present year do not provide for an increase in the balances while the larger exports of cloves towards the end of last financial year may result in a fall in the estimated receipts from clove duty.

Both the Chamber of Commerce and the Indian National Association lay stress on the narrow basis on which rests the economic structure of the Protectorate and the Chamber go on to recommend that the reserve fund should be re-established without delay at not less than £750,000. In stipulating for this large reserve they are influenced, firstly, by the knowledge that any agricultural industry is beset with perils difficult to combat and quite capable of causing either a temporary or permanent collapse in the economic structure and, secondly, that the agricultural community, including exceedingly backward natives, Africans, the large and increasing smallholder, and the Arab plantation owner, are extensively indebted to money lenders and incapable of materially assisting themselves in case of agricultural calamities.

310. The Chamber does not make specific recommendations with reference to the process by which the reserve can be established without undue delay but suggests consideration of :—

- (1) Examining the terms of the loan of £200,000 to His Majesty's Government mentioned in the footnote on page 3 of the Estimates ;
- (2) Disposing of the Electric undertaking ;
- (3) Disposing of the water rights to shipping ;
- (4) Devoting to the reserve funds for such a period as may be necessary the annual rent derived from His Highness's mainland possessions.

311. Considering the vicissitudes to which the revenue of the Protectorate is exposed and the possibilities of agricultural calamities a substantial reserve fund is clearly necessary and the present figure of £225,000 is on the low side. On the other hand recent history has illustrated the temptations to heavy expenditure resulting from the possession of large funds, while it is undesirable to take more in the shape of taxation than is really required in the interests of efficient administration.

312. As regards the specific proposals made by the Chamber the first does not come within the terms of my reference but it was raised by the Zanzibar Government several years ago.

I have dealt with the second in discussing the Electricity and Wireless Department. As regards the third it does not appear to be desirable to deprive the Protectorate of one of the few definite sources of substantial income not dependent on the clove industry, and as regards the fourth proposal, this temporary diversion of recurring income would have to be recouped from some other source.

313. On the other hand, it is clearly desirable both to raise the reserve fund and to provide against sudden heavy expenditure which can be foreseen such as expenditure on plant and machinery.

The main fluctuations of income are in connection with the clove duty and in dealing with the question of fixing the rate of duty and of stabilizing the income from this source I have made proposals for using the extra receipts in prosperous clove years towards building up the reserve fund to a total sum of £400,000 in addition to the normal requirements for working capital.

As regards the question of making provision beforehand against items of heavy expenditure which can be definitely foreseen, the usual method of dealing with such cases is by means of a replacement fund and such a fund has been instituted for the purpose of replacing the two Government steamers.

I recommend that if the Electricity and Wireless Department is retained as a Government undertaking a similar fund should be instituted for the replacement of the main generating plant. The necessary annual contribution is estimated at Rs. 20,000.

Much wider issues are raised by proposals for funding pension liabilities but these have been already considered in paragraphs 255 to 259.

#### (c) TRANSFER OF FUNDS AND INCONVERTIBLE NOTE ISSUE.

314. The proposal for discarding the rupee currency and linking Zanzibar with the mainland currency system has been brought up in discussion on several occasions. The division of opinion appears to be on much the same lines as it has always been, and I have not gone further into the question which does not seem to come within the terms of my reference. There is, however, one matter affecting the currency on which it appears to be desirable to comment briefly.

315. The Note issue of Zanzibar is regulated by the Currency Decree of 1916 as subsequently amended. The notes are "promises to pay on demand" and are legal tender in the Protectorate for the amount expressed in the note. The issue is covered by a Note Guarantee Fund, including a minimum proportion of coin which, by the decree of 1916, was fixed at one-half of the notes in circulation for the time being, the coin being kept in the safe custody of the Currency Board or of the National Bank of India (Zanzibar branch). Notes could only be issued against the payment of rupees and *vice versa*.

316. In the year 1926 a departure was made from the legal procedure when, owing to the contraction in trade, the Currency Board was left with a coin reserve which in April, 1926, represented about 72 % of the notes in circulation. On the one hand the expansion of currency required for the financing of the approaching clove harvest could only be met by the importation of rupees from India. On the other hand, the position of the reserves could only be reduced to a profitable basis by the shipment of rupees to India for investment purposes. An arrangement was therefore made between the Currency Board and the National Bank of India under which the former agreed to issue silver against the payment of a corresponding amount to the credit of the Currency Commissioners' Account with the National Bank of India, Bombay. Nothing was reduced to writing, but the agreement appears to have been made on the understanding that when the seasonal demand for currency had abated, the transaction would be reversed; for the underlying idea was to avoid the double shipment of silver between Zanzibar and Bombay.

It was implied in the agreement that the Bank should pass on to the trading community the saving effected by eliminating the cost of shipping silver by means of a reduction in their nominal rates of commission on transfers between Bombay and Zanzibar.

317. The expedient was subsequently extended and the Board not only issued and received silver against corresponding credits and debits to its current account with the bank in Bombay, but operated similar transactions in respect of notes. During the period April, 1926 to April, 1931, while the system was operated, currency was issued against credits in Bombay to the amount of Rs. 57½ lakhs, reverse transactions representing Rs. 53 lakhs. These proceedings had no legal authority, but it was not until 28th March, 1929, that the British Resident in his despatch No. 77 to the Secretary of State, submitted proposals on this subject.

318. These proposals aimed at legalizing the transfer system which had been evolved, and suggested two further amendments to the existing law. The first was to permit 25 per cent. of the coin portion of the reserve to be held in India for the purpose of avoiding the necessity for moving rupees between Bombay and Zanzibar; and the second to permit a reduction of the proportion of coin required to be held in the reserve from 50 % to 40 % with a view to effecting a more profitable use of the note issue cover.

319. The Secretary of State agreed to the two additional amendments and the necessary amending Decree was enacted in 1929. With regard to the new draft section to the Decree intended to give statutory sanction to the transfer system described above, the Secretary of State, while agreeing in principle to the amendment, suggested that the system could be more conveniently operated, and the note issue more profitably employed, if the character of the notes were changed by making them "legal tender" and not convertible into silver rupees on demand.

320. The question was discussed at the Colonial Office in September, 1929, and as a result the Zanzibar Government prepared a draft bill on the lines of the Cyprus Currency Notes Order in Council establishing a "legal tender" note issue, and also including provisions for the issue in Zanzibar of drafts payable in Bombay and the issue in Bombay of drafts payable in Zanzibar against currency, e.g., notes or coin. The draft bill was forwarded to the Secretary of State for approval under cover of the British Resident's despatch No. 254 of the 6th October, 1930.

321. The subsequent correspondence suggests that the Zanzibar Government has hardly given adequate consideration to the possible dangers of replacing the existing "promise to pay" notes by "legal tender" notes, and that sufficient emphasis has not been laid on the inconvenience and unnecessary expense entailed by the uncontrolled movement of silver between Zanzibar and India. The currency notes now in circulation in Zanzibar amount to about Rs. 25 lakhs, less than half of which is in active circulation, supplementing a roughly equivalent sum in silver rupees. Varying amounts of silver are also held as cash in hand reserves for the purpose of meeting the demand for silver rupees by local Indian passengers visiting India, or for exchange against gold and foreign currencies.

322. Even as regards the notes in active circulation there is reason to think that, to a considerable extent, they are freely accepted only because of their convertibility into silver.



Experience in connection with the one rupee notes which it was endeavoured to put into circulation in 1928 appears to support this view. The actual measure of success achieved may be judged from the following figures :—

Year.	Issued.	Redeemed.	Circulation on 31st December.
1928 (from May) ... ..	140,000	78,000	62,000
1929 ... ..	268,935	206,460	124,475
1930 ... ..	57,903	130,168	52,210
1931 ... ..	26,642	37,502	41,350

323. The notes were issued in payment of wages and in various other ways, but they very quickly found their way to the banks, which have experienced difficulty in putting them back into circulation. Reliable reports were received that in the country district these notes were changed by Indian traders at a considerable discount and in consequence the measures to promote their circulation have not been actively pursued. It seems clear that convertibility is a factor of considerable importance, and that a change to "legal tender" notes would tend to restrict circulation.

324. One of the main objects with which the alteration of the present currency law was proposed was to introduce a greater measure of flexibility in the working of the note issue during the period when there is a seasonal demand for increased currency. That increased demand is to a very large extent a demand for silver rupees required to pay harvesting labour. Even if the native was prepared to accept notes at ordinary times, he refuses, and rightly so, to accept anything but coin as payment for his labour as he moves about the district in all sorts of weather during clove picking. Only in so far as the increased demand for currency is due to the increase of general business activity can it be met by an expansion of the note issue.

325. Whether a "legal tender" note issue would tend itself to expansion to meet the seasonal demand would depend on whether the inconvertible notes received general acceptance. In addition to Zanzibar notes there is a certain quantity of Indian Government rupee notes in circulation, and, although not legal tender, they are freely accepted in the bazaar, and are obtainable by post. There is a danger of greater use being made of these notes if a "legal tender" system were introduced, and if the movement of silver between Zanzibar and Bombay were supplemented by a movement of notes it is very problematical whether the currency Board would find any demand for notes in exchange for transfers on Bombay or vice versa. The note issue might, in fact, cease to fit into the general currency structure of the Protectorate. Further, the expense and inconvenience of shipping considerable quantities of silver overseas is a feature of the problem which cannot be ignored. The figures quoted previously show that during the operation of the transfer system, currency to the amount of Rs. 57½ lakhs was issued locally against credits in Bombay, Rs. 53 lakhs being returned. During the same period silver rupees to the amount of Rs. 17½ lakhs were imported against Rs. 1 lakh exported, while the Currency Board's stock of silver decreased from Rs. 21 lakhs to Rs. 14 lakhs during the same period. Taking these figures as a rough measure of the uncontrolled movement of silver, the average annual shipments are about Rs. 15 lakhs in one direction and about Rs. 12 lakhs in the other.

It is not only the cost of shipment at 1½ % each way which is of importance but also the loss of interest on carrying stocks of silver which must be maintained at a point which will provide for contingencies.

326. The suggestion has been made that the Banks may be trusted to maintain adequate supplies of silver in the event of a legal tender note issue, Government rendering assistance if necessary. Government—as distinguished from the Currency Board—has, in the past, assisted in the finance of the clove harvest by the issue of transfers to Pemba for encashment at the District Offices. As there are no banks in Pemba this procedure is of great assistance to the clove industry and of some profit to the Treasury. During the year 1931 the value of these remittances exceeded Rs. 14 lakhs and the Treasury had to despatch silver rupees to the amount of Rs. 7 lakhs.

327. The Treasury has been accustomed to look to the Currency Board and to the banks to provide the necessary silver to carry out this service free of cost. If a "legal tender" note issue were introduced the Government would have to look entirely to the banks which would doubtless arrange to provide the necessary silver, passing on the cost of importation to Government.

328. The general conclusion from these facts appear to be that in the local conditions of Zanzibar there would be some danger in transferring to a "legal tender" system of notes, and this danger is sufficient to outweigh the advantages desirable from being able to put the whole of the Note Guarantee Fund to profitable use. On the other hand, the seasonal expansion of currency required during the clove harvest should be met in the most economical manner and the movement of silver to and from Bombay reduced to a minimum. This can best be achieved by the Currency Board regulating supplies of currency in close co-operation with the banks under a system which permits the

maximum employment of the silver reserves held by the Board and by the banks, and the expansion of the note issue as far as possible by other means than the exchange of notes for rupees. Within limits, the transfer system operated by the Currency Board between 1925 and 1931, can achieve this end and should be legalized by the approval of the amendment to the existing Decree originally drafted. The necessary measures should be taken for the passing on to the trading community of the savings effected and a suitable commission should be charged.

329. Experience in operating the system has, however, shown that it requires careful management. On occasions the banks, relying upon the Currency Board to supply silver against payment in Bombay on demand, have taken inadequate measures to supplement the local stock of silver which must, under any system, require periodical replenishment. As a consequence the Currency Board, in order to avoid the embarrassment to harvesting operations which a shortage of silver would create, have found it necessary to reduce their silver reserve below the statutory 40 %. In view of the danger it would seem advisable to withdraw the sanction given to the Board to hold one-quarter of the silver reserve in Bombay.

(d) LOCAL PURCHASE OF STORES.

330. The unofficial members of Council and the Indian National Association have recommended the local purchase of stores instead of the present system of purchase through the Crown Agents. They consider that this would make for economy as well as being to the benefit of local trade. As an instance of possible economy special reference was made to certain purchases of cement for which a higher price was paid than was necessary at the time. They allow that as things now stand all the articles required might not be obtainable in Zanzibar, but they contend that once it was known that the future system would be one of local purchase, stores would certainly obtain the articles required and Government would be saved the expense and trouble of keeping a great variety of stores. Any conditions considered desirable could be laid down as regards supplying British goods. The problem is a general one and does not differ substantially in Zanzibar from that existing in all colonies. The shipping and port facilities are, it is true, unusually good, and it is probably the fact that if the local stores had lists of the articles required and know that they would be purchased in the local market they would keep the necessary stocks. Proper inspection should prevent the supply of inferior articles and British products could be insisted on. Whether on the whole there would be any economy is, however, doubtful, as bulk purchase by the Crown Agents should result in the long run in cheaper supplies.

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## CHAPTER VI

## LOCAL GOVERNMENT.

331. Up to the present time all branches of the Zanzibar administration have been closely centralized and there has been no devolution of authority to any local or subordinate body.

This has been markedly the case in connection with the administration of the town of Zanzibar and, as already noted, one of the results has been that the proportion of the general revenues spent on purely municipal services has tended to be lost sight of. As Zanzibar is not only the capital, but the only town of any size in the Territory, and the only port of importance, expenditure has naturally been largely focussed on it and the amenities and conveniences of town life have reached a high standard. That these amenities should be for the most part paid for by those who profited by them, and not by the general taxpayer, has not been adequately appreciated, and as all the possible critics were among the persons who profited by the continuance of these arrangements it was not unnatural that no protests were made. The only local taxation has been a rate of 10 % on the rental value of stone houses called "the sanitary and lighting rate," yielding much less than the expenditure on sanitation only; the rates charged for private lighting have been unduly low and no payment whatever has been made for water for domestic purposes, including house installations. The Indian National Association has, in fact, in its representation to me, laid special stress on the impossibility of increasing direct taxation.

332. I do not consider that this state of affairs should continue and have already proposed an increase in the charges for private lighting.

There appears, again, to be no reason why the large number of native huts in the outskirts of the town known as the "Ngambo" area should make no contribution whatever on account of municipal services, although many of them pay fairly high rents, more especially as it is eminently desirable to discourage the tendency to move into the town. The arguments in favour of this course of action will be greatly strengthened if, as will be mentioned subsequently, some form of direct taxation is imposed on huts in rural areas for local purposes. The only strong argument against the imposition of such a tax is the fact that there was a considerable agitation some years ago against the unreasonable increases in ground rents by private owners leading to the passing of a rent restriction decree. The success of the agitation in that case may lead to some recrudescence if municipal taxation is imposed but this risk should be faced.

333. With increased taxation should go some form of municipal representation and an opportunity for public scrutiny and criticism of the various branches of municipal expenditure. No demand for this has, it is true, yet arisen, but with increased taxation it would not be long delayed, and considering the proportion of the population, European, Arab and Indian, who form an educated and intelligent community the demand would be fully justified. The European population—officials apart—is, it is true, largely a fluctuating one, and there may be some difficulty in finding representatives able and willing to devote the necessary time and labour to municipal affairs, while a similar uncertainty exists as to the better and more representative elements in the Arab and Indian communities. I trust, however, that all three communities would provide an adequate number of representatives with the requisite public spirit.

334. There is no uniformity of practice in the other East African dependencies with reference to the constitution and finances of municipal services. In the larger townships of Kenya, municipalities with wide responsibilities and vested with authority to raise loans and levy rates have recently been established.

In Uganda a commencement has been made in the development of municipal institutions. A portion of the staff and general votes of the sanitation division of the Medical Department, and a portion of the Public Works Department votes for road maintenance, are shown under an expenditure head, "Municipal Expenditure," and certain receipts are credited to general revenue as municipal receipts.

The township boards exercise some control over monies thus voted for municipal services, but the overlapping of such services and of the general Medical and Public Works services is very wide.

In Tanganyika Territory steps have been taken with a view to instituting municipalities in Dar-es-Salaam and elsewhere on more advanced lines taken to a large extent from examples in Nigeria.

Full effect has not yet been given to the proposals, but they include the appointment of a Town Clerk and Treasurer to undertake the organisation of the municipal services; his office will be staffed partly by transfers from the staff of other departments.

335. The rate of advance and the lines which should be followed must largely depend on local circumstances and on the character of the population. In Zanzibar, for example, the facts that the town and port are one, and that the population includes educated communities of three different types as well as a large majority of African inhabitants with little education and a low standard of life, cannot be left out of account. The interests of all of these communities will require representation. The actual constitution of a municipal body is beyond the scope of my reference, and I shall confine myself to recommending that such a body should be set up with a suitable constitution and adequate powers. Development would probably be gradual and in the early years an official majority may be necessary. The decree should provide for a Town Clerk and Treasurer with suitable powers over the staff with a position somewhat analogous to that occupied by the Executive Officer in Bombay. He should be an official of the Administration, at any rate in the first instance, and I have already suggested in paragraphs 62 and 119 how the post should be filled.

336. A town of 45,000 inhabitants would not provide full time work for a capable and experienced officer and the post might, as already suggested, be combined with such Government work as the administration of the proposed Trade Licences tax in the town or of a general Inland Revenue Department, and, when opportunity offers, of the Lands Department of Government now under the Administrator-General. Departmental officers classified under the municipal head would not thereby cease to be Government servants.

337. The local services to be made over in the first instance will include the following :

- Sanitation ;
- Road maintenance (excluding the main roads) ;
- Street lighting ;
- Building inspection ;
- Markets and abattoir.

The actual working out of a scheme would involve the consideration of a wide variety of problems more especially those arising from the overlapping of municipal services with the general Medical, Sanitary and Public Works services, but a rough estimate of income and expenditure on the basis of the existing practice yields the following results :—

EXPENDITURE.									
(1) <i>Sanitation</i> —									
Wages of Staff	...	...	...	...	...	...	...	...	Rs. 52,678
Wages of sanitation labour	...	...	...	...	...	...	...	...	84,317
Miscellaneous	...	...	...	...	...	...	...	...	16,205
								Total	Rs. 1,53,200
<i>Refuse Destructor</i>	...	...	...	...	...	...	...	...	Rs. 4,790
<i>Drainage</i> —									
Staff	...	...	...	...	...	...	...	...	Rs. 9,619
Other Charges	...	...	...	...	...	...	...	...	525
Maintenance and Upkeep	...	...	...	...	...	...	...	...	8,000
								Total	Rs. 18,144
Total recurrent cost of Sanitation									
									Rs. 1,76,134
(2) <i>Road Maintenance</i> —									
Staff (including a proportion of salaries of Engineering Staff)	...	...	...	...	...	...	...	...	Rs. 21,530
Other Charges	...	...	...	...	...	...	...	...	1,352
Maintenance	...	...	...	...	...	...	...	...	20,000
								Total	Rs. 42,882
(3) <i>Street Lighting</i> —									
Electric current	...	...	...	...	...	...	...	...	Rs. 40,000
Repairs and Renewals	...	...	...	...	...	...	...	...	8,500
								Total	Rs. 48,500
(4) <i>Building Inspection</i> —									
Staff	...	...	...	...	...	...	...	...	Rs. 13,520
Other charges	...	...	...	...	...	...	...	...	928
								Total	Rs. 14,448

The total expenditure worked out on this basis is Rs. 2,82,000, but the expenditure on road maintenance staff should be capable of reduction by about Rs. 5,000, leaving a net expenditure of Rs. 2,77,000 to be provided for.

338. Against this may be set the following income :

Sanitary and lighting rates	...	...	...	...	...	...	Rs. 1,14,000
Market earnings	...	...	...	...	...	...	36,000
Abattoir earnings	...	...	...	...	...	...	5,500
Vehicle licences	...	...	...	...	...	...	12,000
Other licences	...	...	...	...	...	...	8,000
							Rs. 1,75,500
							Rs. 1,01,500

If the rate for electric current supplied to private consumers is raised to 9 annas, the rate for street lighting could hardly be less than  $4\frac{1}{2}$  annas as against  $3\frac{1}{2}$  annas assumed above. The deficit would then be approximately Rs. 1,10,000.

The revenue in respect of Rates and Licences represents net receipts and the revenue in respect of markets and abattoirs the surplus receipts after meeting all charges relating to the services. This deficit will be reduced by setting off against it a Government contribution to sanitary and lighting rates of approximately Rs. 25,000 on the basis of the rental value of the buildings owned or occupied by them. Where those buildings are occupied by officials there appears to be no reason why the rates should not be paid by them. If, moreover, as proposed above, a hut tax is imposed on native huts in the town, at the rate of Rs. 3 for mud and thatch houses, and Rs. 5 for better type houses, the net yield would be about Rs. 25,000, reducing the deficit to Rs. 60,000.

339. The statement of account is, of course, not complete, for example, it makes no provision for the pay of the proposed Town Clerk and Treasurer and of his staff, but it is not unreasonable to assume that the necessary staff can be arranged for by transfers from the existing departments and that the excess expenditure will be very small. In particular any proposal to take advantage of the change of system for the purpose of increasing the number of superior posts should be definitely negated. The work to be done will not be increased, at any rate in the first instance, whatever developments occur later on, and with goodwill on both sides there is no reason why any friction between departments should cause difficulties.

340. The ordinary method of meeting the deficit would be by increasing the sanitary and lighting rate. As noted previously, the proceeds of that rate do not nearly cover the expenditure on sanitation and it would be a reasonable course to double the existing rate or at any rate to raise it by 50 %.

On the other hand, the imposition of a general Trade Licences Tax and the raising of the rates charged to provide consumers for electric light will affect a large proportion of the ratepayers and the simultaneous doubling of the rates may be felt as a hardship. It may therefore be preferable to postpone the raising of the rates until the proposed improvements in the water supply to houses are carried out. The supply of water at public stands will probably remain free, but there is no reason why an adequate water rate should not then be imposed on all houses of the better type capable of being easily connected with the municipal supply.

341. Whatever the decision as to establishing a municipal organisation there should be no delay in instituting a municipal section of the annual estimates and accounts showing the income and expenditure relating to the various services.

342. The proposed developments in connection with the town of Zanzibar would, in fact, be the counterpart on more advanced lines of developments which are in process of being worked out in the rural areas of both islands. In dealing with the Provincial Administration mention has already been made of the recent innovation by which the " mudirs " are presidents of district courts, the other members of which are some of the " masheha " and other non-officials, who may be Arabs, Indians or Natives. The problem of the development of these courts is in some respects a more difficult one than that of the native courts on the mainland, because there is no separate system of tribal law the administration of which does not naturally fall under the jurisdiction of the ordinary Courts and does not call for the appearance of legal practitioners. No simplified procedure has as yet been laid down for these courts and they can never be expected to comply with the meticulous rules of the ordinary code of procedure. What is essential is to secure broadly equitable decisions and the exercise of a broad commonsense in reviewing these decisions. Given these essentials they should have a very valuable influence in building up an organisation consonant with native feeling.

343. A further development has resulted from the recent deputation of an experienced officer to make an intensive study of the working of the system of native administration in Tanganyika Territory. The circumstances of the Territory differ widely, more especially as regards the absence in Zanzibar of any real tribal organisation, but it is proposed to establish local Native Councils which would presumably include the "mudir" and some of the "masheha," together with other elders selected by the villages of each particular area.

Their functions would lie mainly in advising with reference to the extending of medical and educational facilities by the use of funds to be derived from the imposition of a small general hut tax. They would be responsible for the collection of these funds.

The general aim is to establish bodies which can be trained to ultimately take a part in a system of local self-government, and the scheme constitutes a valuable development in the evolution of a native policy.

## CHAPTER VII.

## CO-OPERATION WITH THE MAINLAND TERRITORIES.

344. The proposals in this report are based throughout on the assumption that Zanzibar continues to be a self-contained administrative unit entirely independent of its larger neighbours. Considering its special position under the Treaties, its long history as a centre of Muslim influence and a seat of rule for the greater part of East Africa, the strong local sentiment in favour of independence can be understood and sympathised with. Nothing short of a financial catastrophe would make it necessary to consider any alternative scheme of administration.

345. This does not however make it less desirable to investigate the possibilities of co-operation on equal terms with the mainland territories, more especially in such matters as co-ordination in the many branches of research now essential to any administration.

346. Even as regards other services there are possibilities of co-operation to their mutual benefit and I have suggested advantage being taken of them in connection with the Government Press, the Post Office and the Government Architect.

347. As regards the administrative service a closer connection with the mainland territories is specially desirable and would be in accordance with the scheme for a unified colonial service. It should, if possible, take the form of an arrangement for the exchange of officers. Under the existing system the Zanzibar administrative service is a small closed compartment with the result that its members attain little variety of experience, though this is partly due to the absence of either native or land policies. Again in a small separate service of this type it often happens that either, as at present is the case, the higher posts are occupied by officers of comparatively junior standing or, as is likely to occur in the future, there is stagnation in promotion owing to the senior posts being filled by relatively young men who are not due to retire for many years. If in the case of future entrants to the Colonial Administrative Service there is a liability to compulsory transfer it would be to the great advantage of Zanzibar either to obtain any new recruits required by the transfer of junior officers who have had a period of training on the mainland, or to send their own officers to the mainland at intervals for the purpose of gaining a wider knowledge and experience.

348. If however the liability to transfer attaches to new entrants only, any arrangement on these lines would take a considerable time to bring into effective working, and in the meantime an attempt might be made to arrange for some exchanges of administrative staff by the mutual consent of the officers concerned. Zanzibar has, it is true, problems of its own which are not found in the mainland Protectorates but the general basis of the administration is the same and the conditions in the coastal districts are not dissimilar. In particular they are united by a common language so that a district officer with coastal experience on the mainland should, after a short time, find no difficulty in taking charge of a district in Zanzibar and the contrary would hold equally. Some difficulties may arise from the fact that few officers who have served in Zanzibar have any desire to leave it, and this feeling is very comprehensible to anyone who has seen even a little of the country and of its peoples.

## CHAPTER VIII.

## PROPOSALS ARISING OUT OF MR. STRICKLAND'S REPORT.

## CLOVE GROWERS' ASSOCIATION.

349. In dealing with the work of the Agricultural Department mention has been made of the Clove Growers' Association, the first attempt at organizing the financial side of the industry, and at training the growers to work together for their mutual advantage.

The original conception of the Association arose from the work of the Agricultural Department in connection with the bonus paid on bearing clove trees from 1922 to 1928, and the bonus on seedlings paid from 1923 to 1930. Over 29 lakhs in all was paid out under the former head and nearly 5 lakhs under the latter. The proportion of these large payments which was actually invested in the industry is problematical, but one useful result was the compilation of a register of plantations. It was drawn up in stages and is not either complete or fully reliable, but it contained the names of 32,000 growers—a number, which by subsequent additions has now risen to about 36,000.

350. The control of these large sums of money and the possession of these statistics directed the attention of the Director of Agriculture to the desirability of organizing the financial side of the industry so as to place the actual growers in a stronger position as against both the overseas consumer and the series of middlemen who control the export trade. The objects of the Association, as stated in the annual report of the department for 1928, were :—

- (1) to regulate the costs of production by fixing rates of wages ;
- (2) to gain control of the market ;
- (3) to obtain funds for the systematic regeneration of the plantations.

For the present the third aim may be left out of account.

351. The Association was formed early in 1927 with nine district committees in Zanzibar and fifteen in Pemba. It was intended to embrace all clove growers and membership was stimulated by the announcement in the Official Gazette of 30th April, 1927, that Government would recognise the Association as the organization through which assistance would be given to the growers. As a result of this announcement nine thousand members were enrolled. Even this is only a fraction of the total numbers but enrolment fell off on the discontinuance of the two bonuses.

352. With their disappearance the only remaining inducements to joining the association were harvesting loans and advances on stored cloves. The former were given for the purpose of financing the picking of the cloves and varied from Rs. 1,71,000 in 1929—a high figure largely due to the advances given to Lessees of Government plantations—to only Rs. 17,000 in 1931. The small advances in 1931 were chiefly due to the requirement of the new chattel mortgage which was security for the loans. In earlier years the loans were made without security, or with very inadequate security, and it is surprising that not more than about Rs. 3,000 need be regarded as a bad debt.

The Chattel Mortgage Decree was issued too late in the season to be of any use in Zanzibar and the new requirement was at first regarded with suspicion. It will, however, probably establish its position during this season.

353. As regards advances on stored cloves, the total outstandings at the end of 1931 are Rs. 2,56,311. A proportion of the advances were made at rates leaving an inadequate margin against the great variations in the price of cloves, and as a result there is an unsecured debt of Rs. 17,326. This would have been considerably larger but for the special efforts made to deal with the problem during 1931, efforts which have been largely successful and which it is unnecessary to describe in detail.

354. These advances did not represent a much larger measure of assistance to the growers than could be rendered by shopkeepers and licenced produce dealers. and in 1929-1930 the Association only marketed 78,000 frasilas of 35 lbs. representing 8.5% of a total crop of 928,000 frasilas. In 1930-1931 this fell to 7,200 frasilas, 2.4% of a small crop of 293,000 frasilas, and in 1931-1932 it will be approximately 65,000 frasilas, 8.1% of the crop estimated at 800,000 frasilas.

355. When it is said that these proceedings were carried out by the Clove Growers' Association this meant in practice that they were carried out by the Agricultural Department. On its staff fell the whole burden of the task though they were assisted in 1931 by Advisory Committees charged with the duty of recommending the persons to whom advances should be given.



356. The Pemba growers at first received few advantages as they were obliged to convey their produce to Zanzibar and to apply there for advances. They very naturally complained, and an important step in advance was made in 1931 when arrangements were made for an Officer of the Agricultural Department to visit the three Pemba ports on fixed days each week, to receive deposits of cloves in the godowns, test their quality and make advances on cloves so stored, in accordance with the general principles laid down by the Clove Industry Advisory Board.

357. The object of these advances has been to obviate the necessity of forced sales by the weaker growers, and they have been useful in this direction. Difficulties have however arisen from the practical impossibility of discriminating between growers who were in real need of the advances from others who merely wanted cheap money to apply in other directions. No rules can cover all such cases which must be dealt with on their merits.

358. The present position is, therefore, a very anomalous one. The Association is not a corporate body and can take no legal action; neither its district committees nor its central committee have ever functioned except to a small extent as an agency for propaganda; and the only effective part of the Association has been the Clove Industry Advisory Board which has acted for Government in regulating the advances made through the agency of the Agricultural Department.

As Mr. Strickland has put the case the Association has been "merely a function of Government without the authority of Government and the embarrassments due to its anomalous status have caused a great loss of time and labour to the officers of the Agricultural Department."

359. This state of affairs can clearly not be allowed to continue. The Agricultural Department must be set free to carry on its proper work, and the Clove Growers' Association must either be placed on a proper basis with an organization on commercial lines, capable of carrying out the duties assigned to it, or it must be abolished on the financial and commercial sides, and left as a mere propaganda agency for dealing with the growers of cloves.

360. The first question for decision is, therefore, whether there is any real need for the Association and whether it could not be abolished or replaced by an ordinary co-operative society.

I do not think there can be any doubt as to the answer to this question. The continuance and strengthening of the Association is imperatively required both in the interests of effecting economies in the cost of production and even more for the purpose of checking the evils inherent in the present system of marketing.

361. In considering both these problems it is desirable to have a clear idea as to the composition of the body of clove growers and the two following tables throw some light on the point.

In Zanzibar Island the plantations, as entered in the register, may be classified as follows according to the number of trees which they contain:—

	Less than 100	100-199.	200-299.	300-499.	500-999.	1,000 & over.
Arabs ... ..	1,236	381	178	213	169	177
Swahilis ... ..	5,880	325	101	67	28	8

Corresponding figures are not obtainable for Pemba without a great deal of labour, but the following table includes the growers of both islands:—

	No. of owners.	No. of Plantations.	No. of trees.	Av. No. of trees per plantation.	Av. No. of trees per owner.
<i>Zanzibar—</i>					
Arabs ... ..	1,218	1,869	735,554	394	604
Swahilis ... ..	4,840	7,070	236,758	33	49
<i>Pemba—</i>					
Arabs ... ..	2,973	6,819	888,250	130	298
Swahilis ... ..	8,717	15,117	896,439	59	103
TOTALS ...	17,748	30,875	2,757,001	89	155

The figures are only approximate, and it is probable that a considerable proportion of the plantations—in Pemba more especially—are actually owned by Indians, but the figures indicate the amorphous character of this large body of growers and the important part played in the industry by the Swahili grower. It is by no means exclusively—and in Pemba not even predominantly—an Arab problem.

There is no large homogeneous body of substantial growers likely to take a long view of their own interests, insofar as the pressure of their creditors leaves them free to do so, though some of the leading Arab shamba owners are of this type.

The mass of the growers are small men of differing types, entirely unorganized and particularly helpless in dealing either with organized credit, with the fluctuating conditions of a world market, or even with the organization of labour in the clove season. Some agency is needed to protect their interests both in the direction of reducing the costs of production and in that of marketing.

362. One of the main objects for which the Association was originally founded was that of reducing the costs of production by fixing standard rates of wages, more especially for clove pickers. The Association has done useful work in this direction through the agency of its district committees, though the success has been by no means complete, as many growers enter into an agreement one day only to break it the next. In any case it is not desirable that they should be able to simply dictate wages in their own interests.

If the Association did not exist Government would probably have to take steps in the same direction in the general interests of an industry faced with competition of a character previously unknown.

363. The necessity for an association is, however, much more pressing in connection with the organization of the export market for cloves.

The methods of marketing have changed to a considerable extent of recent years.

On the one hand the great improvement in communications and the bringing of the Pemba producer into closer touch with the central market has undoubtedly assisted the industry and has tended to reduce the number of small dealers of a rather parasitic type.

The new direct connections with the markets in the East Indies is also a definite step in advance, and the direct connection with America in connection with the Vanillin drawback may have been of some assistance.

On the other hand the great contraction in the Vanillin clove market, owing to the synthetic production of Vanillin, and the growing competition of Madagascar, both directly by the export of cloves and indirectly by the distillation of clove oil, have seriously affected the local monopoly. There is still a considerable degree of optimism on these points, but its basis is somewhat vague, and the necessity of organizing the market is clear, more especially as a greater responsibility for financing the hold over of cloves from one season to another has been thrown on the local industry by the tendency of Bombay to reduce its commitments in this direction. This task is undertaken by a few large dealers.

364. As the result of competition a considerable reduction has also taken place in the number of exporting firms, of whom there are now only seven or eight requiring consideration organized into two rather fluid groups. The chief exporters are a group of Indian firms who enjoy definite advantages from their control of rice imports and their very small overhead charges.

Between the exporters and the actual growers there is, however, a whole series of middlemen and, in the case of the small growers in Pemba, there may be as many as five intermediaries between him and the consumer, each of them taking his commission.

The actual method of overseas marketing accentuates the disadvantage to the producer by making it the interest of the exporter to reduce local prices.

365. The ordinary procedure is for the buyer to make offers for immediate or future delivery. The small number of firms in the export trade, though tending to unite against the local producer, are competitors for the custom of the foreign buyer and the weakness of their position is accentuated by the scanty information available as to the position in the ultimate consuming markets and the stocks held in them.

When forward contracts are concluded the position of the exporters necessarily becomes that of "bears" in the local market, and the dealers and the rest of the series of intermediaries are chiefly concerned in seeing that their own margins are secured at the expense of the producer. Recent experience has afforded an outstanding example of a financial concession intended for the benefit of the local producers being completely absorbed within a short period by the overseas buyer.

366. One proposal put forward for dealing with the situation is that Government should take power to control the export of markets by fixing the minimum prices at which export will be permitted.

The Zanzibar market has, it is true, recently afforded notable examples both of holding up when they should have sold and of selling when they might have held with advantage. It is, however, very doubtful whether, on the average, Government management would have been any more successful and I do not consider this is a responsibility which should be undertaken by Government.

367. The best method of dealing with the situation is on the general lines proposed by Mr. Strickland by giving a proper status and constitution to an organization genuinely representing the interests of the growers themselves. As he states, no half measures will be effective and the reorganized Cloves Growers' Association must be a sound and businesslike institution with a competent manager of adequate commercial experience, and with sufficient command of funds to enable it to fulfil all the functions devolving on it both in connection with the marketing of cloves, the giving of advances to growers, the organization of information about possible markets, and propaganda of all kinds.

368. While the ultimate aim should be the formation of a real co-operative society with a definite membership and an elected committee, I think that in the early stages it will be necessary to maintain a close connection with Government by concentrating general control in the hands of a small committee corresponding to the present Advisory Board. The Treasurer and Director of Agriculture should be members and it would probably be enough to have two other nominated members, one official and one unofficial. The Registrar of Co-operative Societies will be a probable member later on but for some years he will be fully occupied in other directions.

All clove growers would be considered as potential members and a nucleus of actual membership would be provided by the growers who have hitherto made use of the association. The present district committees would be maintained for purposes of assisting in the organization of labour and for maintaining touch with the mass of the growers but they will at first have no function in connection with marketing.

The total expenditure including a competent manager with an adequate staff should amount to approximately Rs. 30,000 per annum and the essential question for decision is therefore how this money is to be raised, and how funds are to be provided for harvesting loans and for advances on stored cloves which are essential features of the present arrangements.

369. Mr. Strickland's proposal is that both the expenses of management and the interest on advances taken from the banks should be met by requiring all cloves to pay a brokerage commission to the Clove Growers' Association—which for him is a Co-operative Society with elected officers and committee—whether those cloves are actually sold through it or not.

He points out that the Association is at the disposal of all producers and that if they do not wish to pay the charges of a private dealer in addition to this commission they can bring their produce to the Clove Growers' Association, and abandon the luxury of paying for two agencies. The rate of commission which he proposes is two annas a frasila on cloves with lower rates for other clove products and copra.

370. After discussing the whole subject with the Advisory Board I do not consider that any such general rate should be imposed. The Association will, in any case, meet with criticism and opposition from very strong local vested interests and it is not advisable to supply them with very legitimate grounds for criticism and antagonism. Such a measure is not even advisable in the interests of the Association itself. It will enjoy substantial advantages in being placed in a position to make free advances for harvesting and on the security of stored cloves, and should depend on its own ability to convince the growers of its usefulness for extending its operations.

In the first stages it may not market more than 60,000 to 70,000 frasilas on the average but a levy of ten annas or twelve annas per frasila on cloves with corresponding rates for stems, mother of cloves, khoker and copra, should provide adequate funds for meeting the actual expenses of management.

371. The Association will not be in a position to exert such weight in the local market as would be of substantial benefit to the growers until about one-quarter of the crop is marketed through them; when that stage is attained the rate of levy could be reduced, but it is in any case considerably below the charges incurred by marketing through private agencies. Too rapid a rate of expansion would not be advisable as it might overtax the available accommodation.

372. For the purpose of accumulating a reserve any income over the actual cost of management—including possibly rent for the godowns occupied—might for a period of five years be set aside instead of being applied towards meeting other liabilities. The accounts will, however, be maintained from the first on a proper commercial basis.

373. As regards the provision of funds for harvesting advances and for advances on stored cloves, the average requirements up to the present have been about three lakhs. The average requirements under the new conditions might amount to five lakhs with a maximum of, say, eight lakhs.

It is essential that the money should always be available when required and it is not advisable to tie up the Government balances to this extent, or to compel them to take large overdrafts. I recommend therefore that the Association should be authorized to obtain the necessary funds from the Banks on a Government guarantee.

374. Harvesting advances would be secured by chattel mortgage and the main liabilities on account of advances against cloves stored would be amply secured on the cloves themselves if advances were limited—as is certainly advisable—to fifty per cent. of the value of the cloves.

The Decree establishing the Association should provide for the limit of the advances to be taken from the banks being varied with the sanction of the Secretary of State.

375. The annual cost to Government under this head should not exceed Rs. 25,000 and might be considerably less. During the first few years a small additional liability might be incurred temporarily if the crop was small and the amount marketed through the Association was not adequate to meet the whole of the pay of the staff.

376. While the Association would market copra if necessary, they would not aim at handling it in large quantities and no advances would be made on stored copra. Dealings in copra would give occupation when cloves were not coming in or in years of bad clove crops.

377. Storage agreements for cloves should contain clauses permitting the Association to pledge the produce with banks and to sell it if the margin of security between the advance and the value of the deposit becomes too narrow.

Power should also be taken to liquidate any advances taken during the period of six months from the date of deposit. The rest of the cloves deposited would be at the disposal of the owner, and would normally be half the total deposit, but rent should be charged after six months at progressively increasing rates. It would be advisable to commence charging rent at an earlier stage, but this would be strongly opposed by the Arabs.

It would be advisable to add a clause permitting the Association to either sell or require removal after the expiry of the six months period of free storage if the accommodation was required for other purposes.

- The commission of the Association would be levied when a deposit was either sold or removed.

In cases of applications for harvesting loans the *bona fide* character of the applicant—if not already known to the Association—would be checked as far as possible through District Officers. The register of clove growers in its present form would be of little use for this purpose and in fact only a cadastral survey would give an adequate check of this type. Chattel mortgages would be required in all cases.

Advances of either description could be made through district officers unless they could be conveniently drawn at an office of the Association and repayments would also be arranged for at district offices.

378. The problem of the Pemba grower requires special consideration as the assistance given by the Association is of peculiar value to them by transferring their produce from the essentially biassed local markets to the central and competitive market in Zanzibar.

Under the existing arrangements storage advances are made at the three Pemba ports on fixed days in each week by Officers of the Agricultural Department, and it will be essential to continue this convenience in some form, preferably by arranging for visits by some responsible officer of the Clove Growers' Association.

The responsibility could not remain with a subordinate employee of the Association more especially as questions of the quality and condition of the cloves might be involved, and the District Officer could also not be made responsible, partly for the same reason, and partly because it is undesirable to tie him more closely to his office or to the clove godowns. As already noted he should assist if necessary in the payment of harvesting loans and storage advances.

379. It will be advisable to take powers for the Association to give loans for the purpose of clearing shop debts or other similar action intended to facilitate sale through its agency, though such action will require the special sanction of Government as it would probably involve the provision of additional funds.

380. The organization of the Association will take some time to effect more especially as any extensive operations should await the return of the Commercial Mission which is about to commence an extensive tour of actual and prospective markets.

Pending the return of this mission all that can be done during the next clove season will be to continue working on the present lines through the Officers of the Agricultural Department, but on the simpler lines which have recently been laid down. Before the clove season of 1933/1934 it should be possible to establish the new organization and so at last to allow the officers of the department to devote themselves to their proper work.

381. I have proposed that the Association should market copra if necessary. They would not aim at handling it in large quantities and no advances would be made on stored copra.

This restriction is intended to apply to the earlier stages of the Association and should not be interpreted as suggesting that the production of copra is of little importance to the Protectorate. So far as the poorer elements of the population are concerned cocoanuts are a more important crop than cloves because of their more general distribution, their value as a food and the relative freedom of the copra market from financial manipulation.

382. If the Clove Growers' Association decides to deal in copra it should, as Mr. Strickland says, do so as a matter of deliberate policy and not by gradually drifting into the trade. It may even be necessary to form a separate association, and there is undoubtedly great scope for useful work in this direction. The copra production of Zanzibar is an insignificant proportion of the world crop—about one per cent.—and with prices at their present level there is little inducement to the introduction of improved methods. At the same time it is recognized to be very unsatisfactory that Zanzibar copra—Pemba copra more especially—should be of such a very low grade, partly as the result of the use of immature nuts and partly owing to careless methods of preparation. With prices at more normal rates the difference in value between Zanzibar copra and copra of good quality would be at least 30 shillings per ton, so that the aggregate loss from the present methods of preparation is very large. The extensive picking of immature nuts is largely the consequence of the local custom by which all fallen nuts are the property of the finder, though the practice of leasing plantations is also partly responsible.

383. The first step in an attempt to improve the general standard must rest with Government and it is proposed to exert an indirect pressure by applying the Produce Export Decree to copra as well as to cloves and to grade all exports. This will have to be followed up by other measures for preventing the use of immature nuts and introducing improved methods of preparation in place of the present smoke drying. Rapid progress cannot be expected and a high standard cannot be fixed at first, but success would be a valuable contribution to the well being of the poorer classes and both the Clove Growers' Association and Co-operative Societies of growers should have a valuable part to play.

#### LAND TENURE.

384. The actions of the Zanzibar Government with reference to the general question of the tenure of land do not disclose any definite or consistent policy and are not based on any clear principles. Land tenure has, in fact, developed without the need having been realised for any definition of the principles on which it is based. Up to the time of the consolidation of the British Protectorate the possession of land probably depended on the power to hold it and on little else. Since that time the special relationship between the Sultanate and the protecting power has tended to increase the tendency to drift; no real attempt to arrive at fundamental principles has yet been made.

385. A report written in 1861 recognizes a distinction between the areas owned by the Arabs holding according to the conceptions of Muhammedan law and the areas still in possession of the earlier inhabitants of the islands holding under a system of semi-communal tenure, apparently that known among the Wahadimu as "Kiambo" equivalent practically to joint ownership by family groups. Even at that time, however, the influence of English legal conceptions on persons in authority is illustrated by the description of the Arab holdings as "the absolute freehold of the proprietor," although both under the customary law of African tribes and under the original law of Islam ownership of land by the individual, as distinguished from a right to its produce, is unknown, and the tenure of land is merely the right to occupy and to cultivate. Under the law of Islam ownership of land by anyone but the ruler is a later development and such conceptions as those on which the law of limitation is based find no place.

386. The main differences between Muslim legal conceptions and native customary law are that under the former rights once acquired by grant or occupation persist even if the land is abandoned, and that rights can be acquired over areas adjacent to land actually occupied. Rights can also be validly transferred by the individual. Under customary law rights of cultivation or occupation only extend as a rule, though there are exceptions, to the area actually occupied or cultivated, and are extinguished when the land is definitely abandoned under the native system of fluctuating cultivation. The individual has in general no right of transfer outside the family or communal group.

387. In considering the subsequent developments it is in practice necessary to distinguish between that part of the two islands which has been developed by the Arabs as clove and coconut plantations and the remainder which is not so planted. The latter consists either of the waste land of poor quality known locally as "wanda" which will not grow cloves or cocoanuts and will only grow native crops for short periods, and the scattered areas of better soil along the east coast and in outlying islands or other remote areas in which natives have continued to grow ordinary crops or

have planted cocoanuts. The boundaries between these two areas are, in general, well defined though the plantation area is in some parts interspaced with large blocks of "wanda" and plantation owners have often put forward claims to an indefinite area adjacent to their "shambas."

388. In the plantation area the existing system of tenure appears to be based on grants by the Sultan added to by a system of gradual accretion by claims over adjacent land. These claims were based either on Muhammedan law or on agreements with the more influential native occupants who, either for the sake of peace or for a consideration, usually negligible in amount, accepted vague rights of control by the neighbouring shamba owners and an indefinite liability to pay a small share of the produce. As time went on and the plantations extended, any previously existing native rights were gradually restricted and native cultivation was gradually squeezed out while, with the spread of English legal conceptions, rights of occupation gradually crystallized into rights of freehold.

The immediate neighbourhood of Zanzibar town supplies good instances of the gradual superimposition of rights of individual ownership over native rights of occupation, and it is not difficult to find many other instances in the actions of Government itself in its shambas, of the Public Trustee in dealing with estates in his charge, and of Arab and Indian plantation owners.

389. A considerable quantity of legislation has been introduced on the assumption, apparently, that the system of land tenure in Zanzibar is identical with that in England. The most remarkable example is, perhaps, the forms used under the Registration of Documents Decree which are copied word for word from English precedents, but the Limitations Decree of 1917 and the Transfer of Property Decree of the same year are based on the same principles of indefeasible title to real property.

The Land Settlement Decree of 1915 contains a curious combination of partly inconsistent legal conceptions.

390. The greater part of the Decree is based on a Decree of the Federated Malay States, District Officers were to be appointed as Settlement Officers for the demarcation of boundaries. The owners or occupiers were to be required to clear and demarcate their boundaries and if there was a dispute the settlement officer was to demarcate a boundary at their expense. All boundaries were to be straightened as far as possible. Shambas were to be roughly surveyed and plans were to be sketched out in field books to serve as a record. Temporary boundary marks were to be put up. Particulars of all properties were to be entered in a register of immoveable properties to be kept by the Chief Secretary. No title to property was to be conveyed by an entry in the register but any person desiring to sell, transfer, or enter into any transaction affecting such property was to notify his intention seven days before entering into such transaction and any additional boundaries necessary were to be demarcated at their expense. A Land Settlement Board of three persons with the powers of a High Court was to be formed to deal with disputes and they were to be empowered to issue indefeasible certificates of title after hearing the disputes, whether the property had been surveyed or not. The Resident might instruct the Board to publish in the Gazette a list of the immoveable properties with a description of their localities, area, owners and claimants, and thereupon any person claiming an interest must give notice in writing to the Board within three months. If no such claims were made, or when they were decided, the Board might direct the making of a survey and, on its completion, issue an indefeasible certificate of title for entry in the register of titles. Permanent marks would then be erected at the cost of the owner in place of the temporary marks put up by the settlement officer. After the issue of such a certificate any transaction affecting the land must be reported and necessary steps would then be taken for any demarcation required. All land in an area to which the decree was applied for which no claim was made was to be deemed to be the property of Government, provided that, if within three years adequate reason was shown for failing to make a claim, a grant of the land might be made if it was in the power of Government to do this or compensation might be paid. In the case of natives who, while acknowledging that the land belongs to Government, had planted or owned cocoanut or other trees, the land on which the trees grow was to be regarded as an estate and marked and registered accordingly, a note being made of such properties with regard to which the occupier did not claim the land but only the produce. Government would be prepared to lease the land at a nominal rent provided the occupier did not claim the land.

391. In practice this Decree was never put into operation because no adequate agency was available for carrying it out. The boundaries of some 100 to 150 shambas were cleared without objection from the owners, but District Officers could not make the necessary surveys or plans, the temporary marks erected disappeared and their location was lost, while no Land Settlement Board was ever constituted.

392. So far as the plantation or shamba area is concerned it may be taken as fairly certain that there is no part which is not claimed as private property. This area included rather less than half of Zanzibar island and probably two thirds of Pemba.

In that area, whatever the theoretical position as regards Land Tenure under Muhammedan law or under native customary law, it is now too late to depart from the conception of a tenure corresponding approximately to the English conception of freehold tenure. Even if a large number of natives hold small shambas in that area, their tenure must be taken as on the same basis as that of Arabs or Indians. The only practical method of simplifying the position and reducing the present uncertainty of title is by carrying out a cadastral survey and registering of titles—probably provisional titles in the first instance. This is a matter for separate consideration.

393. *Wanda land most of which is capable of temporary native cultivation and land under permanent native cultivation.*—As already noted, there would be no special difficulty in drawing a line separating the bulk of the area of “wanda” or waste land and of land under native cultivation from the main clove and cocoanut plantation areas, which may be called for convenience the “shamba” area. The new topographical survey of Zanzibar gives sufficient particulars to admit of this being done and though in Pemba this would be more difficult it would certainly not be impossible. For the most part it could be sufficiently identified by a schedule of such Sheha’s areas as are entirely of this character. The boundaries of these are well known but require legal definition.

The doubtful areas would be those adjacent to existing shambas and blocks of waste or of native cultivation interspaced on the “shamba” areas. Up to recent times, and, in fact, until the islands were opened up by roads, there was little temptation to encroach on native rights or customary practices in that area, but there were several instances of claims being put forward by Arabs resident on the main islands to the ownership of small outlying islands, claims based on very scanty evidence of actual occupation by the planting of trees or grazing of cattle or goats, though the only effective occupation had been by native cultivators. Some of the claims were accepted by Government on very slender evidence, but in one case at any rate the claim had actually been made by the collector acting on behalf of an Arab estate under administration.

394. As a result of this case Government issued a proclamation in 1919 laying down that all waste and unoccupied land not forming part of any shamba to which a good title could be shown and all land used or occupied by members of native communities, either collectively or individually, was the property of the Zanzibar Government. No document or act purporting to transfer, charge, or otherwise deal with any such land was to be recognized by the Zanzibar Government as conferring any title thereto.

This was reported in another notification of 1921 with the following addition:—

- (1) “In spite of the notice deeds purporting to convey land claimed by Government have been submitted for registration but as previously notified such deeds confer no title to such land.
- (2) “The Wahadimu and Wapemba in particular have no right or interest whatever save their crops and trees to any land in the Protectorate and are expressly forbidden from selling or attempting to sell the same.”

395. The Director of Agriculture followed this up in 1920 by pointing out the growing tendency for Arabs and Indians to attempt to obtain possession of the better areas in parts of the islands still in actual possession of the natives. He proposed the introduction of a measure for the prohibition of all alienation of land by the agricultural classes coupled with elaborate provisions for setting apart native reserves, fixing rents for natives occupying or cultivating land in those reserves, and regulating the customary fluctuating cultivation of the “wanda” area. A desultory discussion followed, mainly as to the effects of applying Muhammedan legal conceptions to these areas, but there was no attempt to ascertain what native custom consisted in with reference to the tenure of land, and whether Government would recognize any such customary law, or would merely apply the conceptions of strict Muhammedan law or of English law. There was, in fact, no attempt to arrive at any practical policy for dealing with the land still in native possession.

396. The Public Lands Decree was, however, drawn up and was finally issued in 1921. The purpose of the Decree was noted to be the protection of Public and State lands from unauthorised acquisition by non-natives, and the making of a distinction between land held under the ordinary rule of Muhammedan law that uncultivated land occupied with the consent, express or implied, of the rule became practically the property of the occupier, and land occupied under native custom which gives a right to the crops and not to the land.

The Decree as finally drafted referred only to the latter type of land and laid down that Public Land includes “all waste and unoccupied land and all land occupied by natives in accordance with local or tribal custom.”

“Native” included all Wahadimu, Wapemba and other indigenous African tribes but did not include Swahilis (defined as persons of mixed Asiatic descent or extraction including Comorians and Malagasy).

No person other than a native might occupy, cultivate, or plant, any trees or crops upon any Public Land, except with a permit from a District Officer on such terms or conditions as may be prescribed.

No document by which any native purports to transfer, charge, or otherwise dispose of any land in favour of any non-native, or which purports to transfer, convey or charge any Public Land except in accordance with the provisions of the decree shall affect such land or be admitted to registration.

A memorandum lays down that the decree is merely a measure preliminary to a scheme for the general settlement of the questions of title to land in the Protectorate.

397. In practice it has been no more effective than the Land Settlement Decree. It rests on no basis of policy as regards the character of the rights to be recognized as constituting the system of land tenure by natives. There is no agency with the clear duty of seeing that its provisions are carried out, and there is no certainty as to the area in which it is to be recognized as prevailing. Its provisions are readily surmounted by collusion with the "masheha" or a few other leading residents, and the issues may be confused by introducing a cloud of transfers, or by the false evidence which is readily available to anyone prepared to pay for it. Natives left to themselves cannot successfully contest any claims however flimsy and Government has tended to accept deeds of a very questionable character at their face value. In the case of the Dunga aerodrome, though this is a difficult case as bordering on the Shamba area, Government, by applying the Land Acquisition Decree, stultified any subsequent claim to the land being theirs as coming under the definition of Public Land. There were, it is true, special circumstances making it difficult to avoid this course.

398. As regards the "Shamba" area, it is impossible to go back, though gradual encroachments on native rights of cultivation have resulted in large areas of rice land or other land under native crops going out of cultivation.

399. If the same policy of drift is pursued as regards the remaining area, the result will be that a people accustomed to what appears to approximate to semi-communal tenure—though it cannot be stated with confidence what that tenure consists in—will gradually find themselves divested of their lands by the rapacity of a few of their more intelligent members, probably with the connivance of the elders and possibly of the "masheha."

This can be prevented by :—

- (1) The formation of a definite policy with regard to the rights to be recognized in the native cultivators of land or growers of other crops, and in the waste land ; this is the essential first step.
- (2) A demarcation and scheduling of the areas in which those rights are to be recognized.
- (3) A settlement of these areas including the ascertainment of all claims to individual ownership and a final decision of those claims.
- (4) A cadastral survey so far as may be necessary. The extent of the survey will largely depend on the character of the rights to be recognized, but all land in individual ownership should be surveyed and the title registered. The question of a general cadastral survey and registration of title will be separately considered.
- (5) An adequate organisation for preventing the further alienation of land in the native area, and for bringing to light any other infraction of the new ordinance. This is required immediately and should not await a decision on the question of a general cadastral survey and registration of title.
- (6) Adequate punishment for action contravening the ordinance, and more especially for "masheha" or other Government officers conniving at such contraventions.

#### CADASTRAL SURVEY AND REGISTRATION OF TITLES.

400. I have suggested a limited cadastral survey and registration of titles in the "wanda" land and land under permanent native cultivation. It remains to consider the proposal for a general cadastral survey and registration of titles in the "shamba" or plantation area.

401. Mr. Strickland has summarized the arguments for this course of action as follows :—

He finds that disputes as to boundaries, especially in the form of a claim for compensation for cloves wrongly picked from the trees of a neighbour, are not infrequent, and the resulting litigation is among the causes of indebtedness.

There is, secondly, the uncertainty as to titles, which must tend to raise the interest on loans, though it is less important than the character of the borrower. This uncertainty, which will hamper the operations of every co-operative society, is also a peculiar impediment to loans by Government, which should not, if it is avoidable, lend on a doubtful security and the longer the period of the loan the greater the risk. It is, in the third place, impossible to collect or maintain with accuracy the statistics regarding the occupation and transfer of land or to give the figures of cultivation and production without



a proper survey and registration of title, of which, if at any time a change in the mode of raising revenue should be contemplated by substituting direct for indirect taxation, a survey would be an inevitable preliminary.

He notes that an aerial survey has been proposed in the interests of the work of the Agricultural Department in connection with clove plantations.

On the other hand it is argued that no survey is necessary. Disputes about boundaries and titles are declared to be few, and a local inquiry, with a search of the register and of probate files, should give reasonable safety. This can be further secured so far as Government loans are concerned by charging higher interest and building up an insurance fund. Mr. Strickland does not agree that disputes are few and considers that it is advisable to keep the rate of interest on Government loans as low as possible. Boundaries also cannot be clearly defined without a survey, and without a map and record of rights the entries in a register of plantations cannot be regarded as trustworthy.

A cadastral survey is therefore, he considers, an absolute necessity, and it must be accompanied by an inquiry and a settlement which will establish either a full title or a presumptive claim. He recognizes obvious advantages in granting an absolute title to the land surveyed but doubts whether the Settlement Officers will be able to keep pace with the survey if they are to make a full investigation. If there are 36,000 plantations, and the work is to last six years, two Settlement Officers would have to dispose of ten cases each on every working day, and, if they are required to straighten the boundaries, at least four, if not six, men will be required in the two islands.

The proceedings of the Settlement Officer should therefore be of a summary nature, but it will be advisable to give him final powers in cases of petty boundary disputes, leaving only the larger claims to go before a Land Settlement Board as proposed in the Land Settlement Decree. An alternative would be to drop the idea of a Board giving an indefeasible title, and let the Settlement Officer, after straightening the boundaries, give a presumptive title only to the person whom he found to be in possession. The aggrieved party would be free to sue on a civil court and the presumptive title should become absolute if no suit was filed within a prescribed period, say two years.

For the maintenance of the registers in the plantation areas he proposes to bring the maps and the record of titles up to date at the end of each decade or each generation.

For the "wanda" area and that under permanent native cultivation he proposes to arrange for maintenance through District Officers, with the assistance of "mudirs" and "masheha", of such records as the proposed enquiry into titles and methods of tenure may show to be essential.

402. These proposals were opposed by the Acting Resident and his advisers on the grounds that disputes about boundaries and titles rarely, if ever, occur in the case of large plantations; in the case of smaller ones the disputes are not so numerous or so important as to justify so large an expenditure, regard being had to other claims. The security afforded by existing titles appears to be adequate for local requirements, and no question arises as to the more exact security that might be demanded if foreign capital were involved. They question the suggestion that two Settlement Officers would be capable of disposing of ten cases a day, and they consider the proposal to straighten boundaries likely to be misunderstood and resented and to produce a crop of disputes.

They anticipate that considerable difficulty and expense would be incurred in dealing with the first and subsequent registration of small holdings, and they are very doubtful of the wisdom of placing any restraint on the subdivision of plantations. The latter statement refers presumably to a proposal of Mr. Strickland's that the boundaries of an estate subsequently subdivided should be demarcated either by the Survey Department or by District Surveyors under the Administration, the parties supplying the local labour and the cost of the boundary marks.

403. The main argument against a cadastral survey and registration of titles is that of the cost to the Administration and I have discussed the question with the Surveyor who has now had five years practical experience on the topographical survey of Zanzibar island. As noted previously this survey has been carried out bearing in mind the possibility of its being followed by a cadastral survey. Every mile post is co-ordinated and approximately every square mile has a permanent mark. In Pemba there are no such marks and an instrumental traverse would have to be run round the island and along the roads on the main ridges.

From the technical point of view he does not consider that the job would be very difficult provided the Administration gave the necessary assistance by insisting on the clearing of boundaries and their subsequent demarcation.

In cases of dispute both lines would be picked out on a larger scale map for subsequent adjudication.

404. Allowing for the survey of 151,000 acres in each island (i.e., two thirds of Pemba and rather less than half of Zanzibar) he estimates that the work would take seven years and cost £80,000, apart from the cost of settlement. The cadastral survey could be started at any time and the extra cost would have been considerably less if it had been combined with the topographical survey.

His estimate contemplates a staff of one Director (£1,050), three District Surveyors (£600 to £840), three Indian Surveyors (Rs. 300-400), six Indian Demarcators (Rs. 250-300), one Computer and two European Draftsmen (£480-£720). Three survey districts would be formed.

He explains that his estimate is probably on the high side as he has taken a lesson from the absurdly inadequate first estimate for a topographical survey.

Taken all over, this may be correct, more especially as it should be possible to complete the work in less than seven years, but I find that only £750 has been allowed for boundary beacons at Shs. 2/- per beacon. £6,000 would be nearer the sum required for this purpose though a part should be recoverable. I am not in a position to say whether a less expensive staff would be obtainable, but the very economical and efficient methods adopted in Sierra Leone should be carefully studied with a view to the possibility of adapting them to the local conditions.

405. Only an actual experiment over a definite area would give reliable information as to the probable total cost of the survey. Much would depend on the number and character of the disputes about the boundaries of plantations. The only experience of this work has been in connection with the action taken under the Land Settlement Decree of 1915 when the boundaries of 150 shambas were cleared, and the recent demarcation of the boundaries of the Government plantations. In neither case was any special difficulty experienced but in the former case there can be no assurance that due notice was given to possible claimants, and in the latter case all the encroachments appear to have been at the expense of Government.

406. The work of settlement would presumably be carried out by officers of the Administrative cadre and if it is to be carried out it should be undertaken, if possible, while several surplus officers are still available. Each survey party would have to be preceded by one or possibly two officers according to the system followed in registering title, and it is difficult to form an estimate of the extra expenditure involved, though it should not be very heavy if in cases of disputed boundaries the demarcation of the rival boundaries is carried out at the expense of the parties.

407. As regards the desirability, or degree of necessity, of a cadastral survey there is general agreement that it would be desirable to have such a survey but the balance of local opinion considers that this large sum of money could be spent to better advantage and that the amount of litigation involved will be very heavy.

408. Mr. Strickland has summarized most of the arguments in favour of a cadastral survey, but one consideration should be added, namely that the uncertainty of title hinders the development of the cultivation of considerable areas adapted to native crops, more especially by the members of the three native tribes. The work of the Clove Growers' Association would also be facilitated by the existence of a reliable list of plantations and of their owners, though it can work without such a list.

On the other hand it is, I think, true that though there are a certain number of disputes about boundaries, that number is surprisingly small. The boundaries of all shambas are known though to prove this in Court is another matter. Another surprising fact is the small effect which the uncertainty of title has in hindering transactions in land. It seems doubtful whether it has any material effect in increasing the rates of interest, as the main factors in fixing the rate are the absence of competition and the character of the borrowers. Government loans could be secured by a sinking fund, though, as Mr. Strickland remarks, it is undesirable to raise the rates for such loans. So far as I am aware no Colony or Protectorate has had a complete survey.

409. Taking all considerations into account, however, I consider that a limited survey and settlement is a necessary part of the essential enquiry into the land tenures of the "wanda" area and of the permanent cultivation of the native tribes.

In the "shamba" or plantation area there can be no basis of accurate and verifiable facts without a survey and registration of rights, and it should, if financially possible, be carried out, though it will undoubtedly involve heavy expenditure and be the cause of a great deal of litigation before rights are finally determined. The records when drawn up should be kept up to date on the lines suggested by Mr. Strickland.

410. I do not consider that an aerial survey would be worth the expenditure involved.

411. As regards the procedure, the Land Settlement Decree provided for a Land Board with the powers of a High Court able to give an indefeasible title.

I agree with Mr. Strickland that acting on these lines would probably result in serious delay of the survey operations; on the other hand the Settlement Officers who are available have neither the necessary knowledge nor adequate experience to be empowered to give absolute titles. I would recommend, therefore, that provisional titles only should be given in the settlement operations and that claimants should be given a period of two years to bring forward their claims in the ordinary courts. Many complicated issues are likely to arise which could not be adequately dealt with in possibly somewhat summary proceedings by executive officers.

CHAPTER IX.  

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## REPORT OF COMMITTEE ON CLERICAL AND MENIAL SERVICES.

412. It has been mentioned in paragraph 51 that the whole question of the clerical and menial staffs was under examination by a special local Committee.

That Committee consisting of the Administrator-General, the Auditor, and the Assistant Treasurer was appointed by the Government at my request to make a detailed examination into the strength and organisation of the clerical and menial staffs. With regard to them both the limited time available and my own want of local knowledge made it impossible for me to do more than form a strong general impression that these branches of the staff were as much in excess of what was really necessary as was the strength of the cadre of superior officers.

413. I am indebted to the Committee for a most careful and laborious enquiry in consultation with the heads of the various departments. The enquiry had not been completed when I left Zanzibar but a preliminary report dealing with some of the principal departments showed that the total savings which could be effected without loss of efficiency would largely exceed the Rs. 50,000 spread over two years which I have accepted in the estimate of savings given in paragraph 294.

This balance is likely to be required for additional expenditure on pensions—including commutation of pensions—and gratuities and I do not therefore propose to take it into account.

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## CHAPTER X.

## THE PRESENT FINANCIAL POSITION.

414. This report has been based throughout on the position as set out in the Budget Estimates for 1932.

Those estimates were framed on cautious lines and might have been realised but for special circumstances partly such as could not be foreseen, and, partly the result of an error in policy. The unforeseen circumstance is the small clove crop which is now anticipated in Pemba. The crop from the two islands may probably not exceed three lakhs of frasilas, and, adding  $3\frac{1}{2}$  lakhs carried over from this season, the total available for export up to the end of June 1933 would be  $6\frac{1}{2}$  lakhs of frasilas.

415. The mistake in policy which led to the fixing of the rate of duty at Rs. 1.80 from November 1931, to February 1932, resulted in the heavy export of 415,000 frasilas during those four months. It is probable that exports may, in consequence, be slack during the remainder of this year, and that the total receipts of duty may fall considerably short of the estimated normal of Rs. 13.75 lakhs, even if the quantity exported amounts to 550,000 frasilas. Assuming the total exports to amount to this figure it would include 208,000 frasilas exported during the months of January and February when the rate of duty was Rs. 1.80. The total receipts from clove duty would be made up of Rs. 3,85,000 actually received in January and February, and estimated amounts of 30,000 frasilas at Rs. 3 per frasila from March to June, and 3,12,000 frasilas at Rs. 2.50 per frasila from July to December. The total receipts would thus be Rs. 12,55,000 as compared with the estimated gross receipts of Rs. 17 lakhs. Deducting Rs. 75,000 saving on drawback, the net shortfall is Rs. 3,70,000 to which must be added a shortfall in import duties estimated at Rs. 2,00,000, raising the total shortfall to Rs. 5,70,000.

416. The estimated balance of assets on 31st December, 1931, was Rs. 25,75,000 but the actual balance was Rs. 29,16,000, and this surplus of Rs. 3,41,000, may fairly be set off against the revenue deficit of Rs. 5,70,000, reducing the latter to Rs. 2,29,000.

417. The additional customs duties proposed should, if levied from an early date, yield some Rs. 50,000, and a substantial portion of the balance of Rs. 1,79,000, could be obtained by raising the rates for electric lighting and for postage, and by reducing expenditure, more especially that on new projects capable of postponement.

418. The position at the close of the year need not, therefore, so far as can be foreseen at the present time, be materially worse than that set out in the Estimates, especially as the invested funds of the Protectorate, which were written down to the market value prevailing at the end of 1931, already show a substantial appreciation.

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APPENDIX I.

GENERAL STATEMENT SHOWING ACTUAL REVENUE AND EXPENDITURE 1922-1931 AND ESTIMATED FIGURES FOR 1932.

	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	Estimated. 1932.
<i>Revenue Head.</i>											
1. Customs :											
Import Duties ... ..	Rs. 16,11,635	Rs. 16,86,822	Rs. 16,23,782	Rs. 16,95,031	Rs. 15,28,122	Rs. 16,84,355	Rs. 17,48,764	Rs. 21,15,787	Rs. 19,24,253	Rs. 16,78,800	Rs. 17,50,000
Clove Duties (a) Cloves ... ..	22,40,780	26,75,175	27,02,307	33,54,414	14,19,583	23,91,271	16,32,361	17,34,304	16,11,676	18,00,108	15,50,000
(b) Stems ... ..	23,778	97,441	49,958	65,877	36,091	46,500	36,769	21,437	32,432	44,830	40,000
	37,76,193	54,59,438	43,76,057	51,15,322	29,85,796	41,22,126	34,17,894	38,71,528	35,68,363	35,23,738	33,40,000
2. Port and Light Dues ... ..	99,931	1,10,122	1,15,658	1,28,693	1,55,045	1,76,948	1,80,034	2,06,585	2,14,016	2,10,078	2,30,000
3. Licences and Internal Revenue, etc. ... ..	1,66,822	2,25,047	2,39,591	2,63,134	2,43,135	2,27,646	2,97,639	3,37,807	3,15,834	2,79,835	2,79,330
4. Fees of Court or Office, etc. ... ..	9,18,401	9,69,475	10,31,946	14,82,121	11,56,128	10,48,968	9,59,835	9,30,635	11,03,236	9,96,624	10,08,560
5. Agriculture ... ..	1,92,577	6,85,361	2,20,025	2,77,965	7,31,380	4,04,229	3,17,030	4,04,928	2,12,662	3,45,775	1,81,000
6. Post Office ... ..	96,136	98,459	91,965	98,070	1,01,950	1,09,323	86,687	94,375	91,617	88,020	85,500
7. Electricity ... ..	2,56,599	3,00,470	2,86,888	2,77,237	2,98,520	3,06,104	2,96,307	3,32,394	3,42,737	3,41,483	3,61,000
8. Railways ... ..	1,24,951	60,326	73,943	80,242	63,558	49,453	16,657	—	—	—	—
9. Telephones ... ..	18,824	21,800	23,049	26,398	27,886	28,464	29,407	31,300	32,370	32,956	35,100
10. Wireless Telegraph ... ..	6,734	11,824	6,878	10,089	7,779	8,642	6,903	9,245	9,542	11,687	9,000
11. Rent of Government Property, etc. ... ..	3,32,552	3,41,732	3,31,264	3,19,977	3,29,315	2,90,481	3,07,394	2,86,383	3,12,859	2,87,969	2,80,406
12. Interest ... ..	3,23,224	4,49,563	5,07,046	5,42,087	5,05,828	3,92,644	3,32,831	2,41,901	2,42,948	2,42,695	1,77,000
13. Miscellaneous ... ..	53,878	65,481	38,768	40,038	37,801	39,476	36,862	77,565	1,07,855	31,207	29,400
14. Loans and Grants ... ..	—	—	—	—	—	—	—	—	—	—	13,000
15. Land Sales ... ..	29,296	20,200	43,635	65	91,432	100	4,644	28,793	88,879	—	1,50,000
	63,96,271	88,38,358	73,87,912	86,70,348	67,35,563	72,24,604	62,00,275	68,53,338	65,92,818	64,32,073	61,79,896
<i>Classification of Expenditure.</i>											
1. Salaries and Allowances :											
(a) H.H. the Sultan ... ..	1,20,300	1,20,145	1,20,000	1,20,000	1,20,000	1,20,000	1,30,367	1,32,133	1,37,546	2,71,246	1,28,000
(b) Other ... ..	23,81,930	24,20,907	25,41,734	26,03,525	30,15,707	30,79,846	33,02,084	33,75,418	34,07,693	35,48,356	39,09,007½
2. Pensions and Gratualties :											
(a) Civil List ... ..	75,182	68,514	73,711	1,06,093	81,175	81,420	75,960	74,490	79,680	97,010	80,474
(b) Other ... ..	1,53,191	1,91,460	2,48,651	2,80,665	3,00,468	2,92,741	3,27,027	3,42,288	3,44,222	3,06,951	4,17,007
Total Personal Emoluments ... ..	27,30,693	28,01,026	29,84,996	31,10,193	35,17,350	35,74,007	38,36,238	29,24,774	39,69,131	43,13,563	42,04,488
3. Other Charges :											
(a) Passages, Transport and Travelling Allowances and Expenses, Clothing and Uniforms ... ..	1,75,288	2,29,071	2,26,233	2,40,233	2,90,712	2,71,155	2,82,758	2,57,604	2,78,694	2,78,068	3,35,120
(b) Miscellaneous ... ..	14,90,561	12,72,336	11,86,655	14,44,065	12,72,382	13,41,911	7,96,552	8,98,266	10,61,217	9,12,540	8,71,775
Total Other Charges ... ..	16,65,849	15,01,407	13,62,888	16,84,298	15,63,094	16,13,066	10,79,310	11,55,870	13,39,911	11,90,608	12,06,901
4. Public Works Recurrent ... ..	3,07,800	3,81,573	3,98,293	4,35,613	4,46,451	4,04,941	4,20,856	4,15,334	5,05,801	4,98,043	3,22,000
5. Special Expenditure ... ..	24,92,360	9,02,026	6,37,212	8,46,637	14,68,570	6,80,368	8,59,729	6,26,737	2,15,785	7,09,814	1,91,814
6. Public Works Extraordinary ... ..	4,34,928	16,16,018	13,93,452	20,68,169	27,52,715	20,34,062	17,87,752	13,69,875	6,46,049	4,20,726	1,48,000
GRAND TOTAL ... ..	76,31,810	72,02,050	67,75,941	81,44,910	67,48,180	63,06,444	79,83,865	74,92,599	67,66,677	71,32,554	61,63,293

§ Europeans, Rs. 11,68,441 ; Non-Europeans, Rs. 25,00,566.

NOTE :—In 1931 and 1932 certain additions to both sides of the budget were made for accounting purposes in respect of Customs duties and Public Works transport service.

In 1931 an unusual receipt of Rs. 3,06,188, representing Surplus of Sinking Fund for repayment of the Debenture issue, 1899, was brought to account as revenue. Of this Rs. 2,00,000 was transferred to the Government Steamers Sinking Fund.

These items have been eliminated in the figures for the years 1931 and 1932 for better comparison with those of preceding years.

APPENDIX II.

EXPENDITURE ON PERSONAL EMOLUMENTS, EXCLUDING H.H. THE SULTAN,  
DURING THE YEARS 1922-1932.

	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Actual Expenditure ... ..	23,81,930	24,20,907	25,41,734	26,03,525	30,15,707	30,79,846	33,02,084	33,75,418	34,07,683	35,50,555	—
2. Estimated Expenditure :											
(i) European ... ..	7,65,923	8,17,752	8,74,985	11,20,847*	11,92,482*	11,36,106	11,61,446	11,78,039	11,44,694	12,00,333	11,68,441
(ii) Non-European ... ..	17,97,291	18,01,653	18,62,271	19,14,144	29,43,628	21,00,670†	24,33,596	24,43,022	24,45,481	25,83,290	25,00,566
(iii) Total ... ..	25,63,214	26,19,405	27,37,256	30,34,991	32,36,110	32,36,776	35,95,042	36,21,061	35,90,175	37,83,623	36,69,007
Deduct Railways ... ..	45,538	46,438	47,470	47,086	47,692	48,492	57,143	—	—	—	—
	25,17,676	25,72,967	26,89,786	29,87,905	31,88,418	31,88,284	35,37,899	36,21,061	35,90,175	37,83,623	36,69,007
Add Agricultural Labour ... ..	2,24,000	2,04,000	2,18,500	2,18,500	1,74,500	1,68,726	—	—	—	—	—
3. Total Estimated Expenditure on the basis of 1932 Estimate ... ..	27,41,676	27,76,967	29,08,286	32,06,405	33,62,918	33,57,010	35,37,899	36,21,061	35,90,175	37,83,623	36,69,007

\* Includes Rs. 2,04,000, being half the sum included in 1926 Estimates, "Miscellaneous," for revision of salaries in respect of 1925 and 1926.

† Includes Rs. 86,667, being provision for revision of salaries included in Miscellaneous Head.

## APPENDIX III.

## STRENGTH OF EUROPEAN STAFF.

Department.	1914.	1923.	1928.	1930.	1932.
British Resident ... ..	1	1	2	2	2
Secretariat ... ..	3	4	4	4	4
Administration ... ..	7	14	i12	i12	13
Treasury ... ..	1	2	1	1	} 4
Customs ... ..	2	4	3	3	
Audit ... ..	—	—	1	1	1
Port and Marine ... ..	2	2	2	2	2
Government Printing Press ... ..	—	2	2	2	2
Courts ... ..	6	6	6	6	6
Attorney General ... ..	1	1	1	1	1
Administrator General ... ..	1	1	4	3	3
Police and Prisons ... ..	3	6	9	9	k9
Medical ... ..	13	18	23	22	a25
Education ... ..	1	4	5	b6	b6
Public Works ... ..	h4	e17	f25	22	j22
Agriculture ... ..	3	d7	8	8	e9
Electricity ... ..	g2	g4	4	4	4
	50	93	112	108	113

a Including Dentist, excluding Storekeeper. Includes 9 Nursing Sisters.

b Excluding Mrs. Buchanan.

c One for six months.

d Includes Mycologist.

e Includes Inspector of Produce.

f Includes 4 Temporary Foremen.

g Includes Railways.

h Certain officers who are possibly Europeans, are shown with Rupee salaries.

i Includes Private Secretary to His Highness.

j One appointment postponed and one for part of the year only.

k Includes one appointment for part of the year only.

APPENDIX IV

NON-EUROPEAN STAFF, APPROVED ESTABLISHMENT—NUMERICAL STRENGTH.

Department.	1914.			1923.			1928.			1930.			1932.		
	Clerical.	Prof. & Technical from Range IV.	Menial and Inferior.	Clerical.	Prof. & Technical from Range IV.	Menial and Inferior.	Clerical.	Prof. & Technical from Range IV.	Menial and Inferior.	Clerical.	Prof. & Technical from Range IV.	Menial and Inferior.	Clerical.	Prof. & Technical from Range IV.	Menial and Inferior.
British Resident	2	1	8	1	2	7	1	4	16	1	3	16	1	6	13
Secretariat	8	2	10	5	1	8	7	1	8	7	1	8	7	2	7
District Administration	44	30	150	48	31	145	58	22	154	57	30	143	58	36	131
Treasury	12	1	5	13	—	5	13	—	5	14	—	5	16	1	4
Customs	38	3	33	45	5	25	49	4	24	47	8	20	44	8	20
Audit	—	—	—	—	—	1	4	—	1	5	—	1	6	—	1
Port and Marine	16	68	116	15	33	147	13	46	94	13	50	112	12	60	93
Government Printing Press	—	18	8	1	31	7	1	32	14	1	40	8	1	42	8
Courts	35	20	46	38	8	46	36	13	42	36	13	35	34	13	35
Attorney-General	3	—	2	1	—	1	1	—	1	2	—	1	2	—	1
Administrator-General	20	2	11	22	—	6	28	—	9	28	1	8	27	2	8
Police, Prisons and Mental Hospital	8	28	—	7	27	—	3	32	—	3	32	—	4	34	—
Medical	4	74	181	8	48	71	13	95	162	11	100	175	11	84	201
Education	5	27	15	2	34	25	4	50	37	4	63	40	5	83	53
	(3 on prob. for 3 months)														
Public Works	11	76	172	19	94	103	22	116	99	22	111	107	21	100	54
Agriculture	5	96	33	15	40	25	10	48	51	11	52	62	16	50	73
Post Office	9	—	29	12	—	32	12	—	16	14	5	11	15	7	5
Electricity and Wireless	2	36	41	7	36	50	10	47	51	11	57	52	12	54	52
Tailoring	—	—	—	1	1	1	1	1	1	1	1	1	1	1	1
	222	480	860	260	391	705	286	511	785	288	567	805	293	583	760
	1,562			1,356			1,582			1,660			1,636		

There has been a tendency towards movement from the "inferior" section to the "technical" section, and to improve status of "technicians."

e.g. (a) appointment of "head office boys." The "labourer" to "headman" Public Gardens.

(b) blacksmith at Rs. 80 p.m. and mate at Rs. 20 p.m. in 1914 are now both Range III (P.W.D.).



## APPENDIX V.

TABLE SHOWING THE ANNUAL ESTIMATED COST TO THE PROTECTORATE OF EUROPEAN OFFICERS AT VARIOUS SALARY POINTS.

Salary per annum.	House allowance.	Proportion of Passage for Officer and Wife.	Medical and Dental Attendance.	Pension 18½ per cent.	Local leave and other charges.	TOTAL.	Percentage increase represented by "hidden" emoluments.
£ 400	£ 60	£ 58	£ 13	£ 86	£ 10	£ 627	£ 57
500	75	58	13	108	10	764	53
600	90	58	13	129	10	900	50
700	105	77	13	151	10	1,056	51
900	135	77	13	194	10	1,329	48
1,200	180	77	13	259	10	1,739	45
1,400	210	77	13	302	10	2,012	44
1,600	240	77	13	345	10	2,285	43

Basis of Passage calculation made on assumption that all officers are married. About 75% are married.

## APPENDIX VI.

TABLE SHOWING THE ANNUAL ESTIMATED COST TO THE PROTECTORATE OF ASIATIC PENSIONABLE OFFICERS OF VARIOUS GRADES.

Grade.	Salary per annum.	House Allowance.	Proportion of passage for officer and wife.	Medical and Dental attention.	Pension, 12½%.	Any other charges.	TOTAL.	Percentage increase represented by "hidden" emoluments.
Special	Rs. 5,400	Rs. 810	Rs. 146	Rs. 150	Rs. 776	Rs. 20	Rs. 7,302	per cent. 35
1st	4,200	549	146	150	594	20	5,659	35
2nd	3,300	360	146	150	457	20	4,433	35
3rd	2,400	270	146	150	334	20	3,320	38
4th	1,800	240	64	150	255	20	2,499	39

## APPENDIX VII.

## STATISTICS OF PENSION LIABILITIES.

Year.	European.	Non-European.
	Rs.	Rs.
1913	31,453	15,968
1914	40,453	17,148
1915	41,160	18,713
1916	39,027	20,113
1917	39,027	22,474
1918	44,413	24,709
1919	47,347	29,258
1920	48,093	28,044
1921	67,106	34,994
1922	65,253	39,969
1923	95,406	53,767
1924	1,37,320	66,822
1925	1,42,800	78,876
1926	1,46,290	81,939
1927	1,39,757	1,07,055
1928	1,47,477	1,17,143
1929	1,58,113	1,17,835
1930	1,70,294	1,32,002
1931	1,71,351	1,49,280
1932	2,02,087	1,60,724

The above figures include temporary allowances, but not compassionate allowances.  
Europeans' pensions are converted at the rate of Rs. 13½ = £1 throughout.

## APPENDIX VIII.

STATEMENT SHOWING THE PROPORTION OF EXPENDITURE INCURRED IN RESPECT OF ZANZIBAR AND PEMBA ISLANDS FOR THE YEAR 1930,  
BY DEPARTMENTS MAINTAINING ESTABLISHMENTS IN BOTH ISLANDS.

Department.	Expenditure in respect of staff actually stationed in either Island.						Proportion of Hd. Qr. expenditure properly chargeable to Zanzibar and Pemba Services.		Total Expenditure.		Percentage of Pemba Expenditure to total.
	Personal Emoluments.		Other Charges.		Total.		Zanzibar.	Pemba.	Zanzibar.	Pemba.	
	Zanzibar.	Pemba.	Zanzibar.	Pemba.	Zanzibar.	Pemba.					
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Administration ... ..	1,49,263	1,65,700	17,583	23,583	1,66,846	1,89,283	—	—	1,66,846	1,89,283	53.1
Courts ... ..	1,48,307	41,933	10,535	4,577	1,58,842	46,510	23,037	15,561	1,43,281	62,071	30.2
Medical ... ..	3,95,719	1,08,403	1,10,662	41,950	5,06,381	1,50,353	44,522	14,800	4,91,581	1,65,153	25.2
Education ... ..	2,05,133	34,409	67,012	8,379	2,72,145	42,788	36,972	9,243	2,62,902	52,031	16.5
Agriculture—											
A. Administration ...	85,932	23,148	11,369	3,341	97,301	26,489	43,363	4,817	92,484	31,306	25.3
B. Govt. Plantation ...	1,28,855	24,119	22,162	5,439	1,51,017	29,558	10,958	2,640	1,48,377	32,198	17.8
Administrator-General ...	74,475	18,811	7,306	2,094	81,781	20,905	2,500	1,500	80,281	22,405	21.8
Post Office ... ..	1,91,908	8,802	1,18,753	54,904	3,10,661	63,708	51,677	2,720	3,07,941	66,426	17.7
Police ... ..	2,50,930	36,748	46,616	9,607	2,97,546	46,355	47,634	15,073	3,05,009	61,428	16.7
Prisons ... ..	28,892	4,678	16,557	5,982	45,449	10,660	11,346	2,002	43,447	12,662	22.6
Public Works ... ..	2,99,013	99,021	33,346	21,570	3,32,359	1,20,591	49,181	9,501	3,22,858	1,30,092	28.3
Wireless Telegraph ...	14,391	7,524	2,167	485	16,558	8,009	—	—	16,558	8,009	32.6
	19,72,818	5,73,296	4,64,068	1,81,911	24,36,886	7,55,207	3,15,180	77,857	23,81,565	8,33,064	25.9

APPENDIX IX.

COMPARATIVE STATEMENT OF REVENUE AND EXPENDITURE OF MARINE SERVICE FOR THE YEARS 1925-1931.

	1925.	1926.	1927.	1928.	1929.	1930.	1931.	Average.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Expenditure ... ..	3,59,583	3,61,127	3,68,985	3,21,267	3,90,527	3,97,141	4,11,423	3,72,864
A. Actual earnings from Public ... ..	2,78,750	2,45,242	2,15,908	1,75,671	1,75,680	2,20,046	2,32,639	2,20,562
Annual gross loss ... ..	80,833	1,15,885	1,53,077	1,45,596	2,14,847	1,77,095	1,78,784	1,52,302
B. Value of services to Government ... ..	66,582	54,732	56,285	36,098	64,180	43,965	72,372	56,316
Annual net loss ... ..	14,251	61,153	96,792	1,08,498	1,50,667	1,23,130	1,06,412	95,986
<b>C. Revenue based on Conference rates for Public and Departmental business :</b>								
Services to Public ... ..	3,66,975	3,11,598	2,88,018	2,94,201	3,03,172	3,85,698	4,12,651	3,37,473
Services to Government ... ..	1,14,970	95,373	1,02,468	76,346	1,18,837	90,531	1,35,084	1,04,801
Total services ... ..	4,81,945	4,06,971	3,90,486	3,70,547	4,22,009	4,76,229	5,47,735	4,42,274
Expenditure ... ..	3,59,583	3,61,127	3,68,985	3,21,267	3,90,527	3,97,141	4,11,423	3,72,864
Estimated Profit ... ..	1,22,362	45,844	21,501	49,280	31,482	79,088	1,36,312	69,410

APPENDIX X.

THE TOTAL ACCUMULATED FUND FOR THE WIDOWS' AND ORPHANS' PENSIONS SCHEME FOR EUROPEAN OFFICERS.

Year. (1)	Fund at the beginning of the year. (2)	Interest at 8% on the fund. (3)	Contributions during the year. (4)	Total of Cols. 2, 3 and 4. (5)	Refunds and Pensions paid during the year. (6)	Balance of fund at the end of the year. (7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1921	0,000	0,000.00	7,391	7,391	0,000	7,391
1922	7,391	591.28	20,254	28,236	Nil	28,236
1923	28,236	2,258.88	24,316	54,810	Nil	54,810
1924	54,810	4,384.80	27,278	86,472	230	86,242
1925	86,242	6,899.36	29,603	1,22,744	1,715	1,21,029
1926	1,21,029	9,682.32	39,061	1,69,772	1,715	1,68,057
1927	1,68,057	13,444.56	42,842	2,24,343	2,192	2,22,151
1928	2,22,151	17,772.08	37,568	2,77,491	4,087	2,73,404
1929	2,73,404	21,872.32	35,932	3,31,208	6,412	3,24,796
1930	3,24,796	25,983.68	35,106	3,85,885	4,918	3,80,967
1931	3,80,967	30,477.36	37,567	4,49,011	4,918	4,44,093
1932	4,44,093	—	—	—	—	—

APPENDIX XI.

YIELD OF CLOVES HARVESTED AND TOTAL EXPORTS OF CLOVES.

YIELD.				EXPORTS.				
Crop year.	Quantity Frasilas.	Calendar year.	Quantity. Frasilas.	Crop year.	Quantity. Frasilas.	Calendar year.	Quantity. Frasilas.	
1913/1914 ... ..	785,337	1913	616,115	1913/1914 ... ..	Not Available	1913	508,935	
1914/1915 ... ..	526,304	1914	437,964	1914/1915 ... ..		1914	484,869	
1915/1916 ... ..	796,756	1915	792,177	1915/1916 ... ..		1915	726,441	
1916/1917 ... ..	511,636	1916	593,965	1916/1917 ... ..		1916	579,509	
1917/1918 ... ..	298,197	1917	428,647	1917/1918 ... ..		1917	489,028	
1918/1919 ... ..	824,500	1918	520,788	1918/1919 ... ..		1918	475,584	
1919/1920 ... ..	262,551	1919	565,299	1919/1920 ... ..		1919	615,000	
1920/1921 ... ..	547,216	1920	226,681	1920/1921 ... ..		1920	246,348	
1921/1922 ... ..	266,802	1921	609,107	1921/1922 ... ..		381,312	1921	554,864
1922/1923 ... ..	979,036	1922	583,179	1922/1923 ... ..		784,962	1922	597,193
1923/1924 ... ..	311,786	1923	680,752	1923/1924 ... ..	503,676	1923	641,993	
1924/1925 ... ..	761,440	1924	600,229	1924/1925 ... ..	650,247	1924	542,781	
1925/1926 ... ..	611,815	1925	769,133	1925/1926 ... ..	594,944	1925	701,589	
1926/1927 ... ..	746,492	1926	364,694	1926/1927 ... ..	781,967	1926	506,794	
1927/1928 ... ..	690,748	1927	818,516	1927/1928 ... ..	695,507	1927	798,248	
1928/1929 ... ..	222,000	1928	504,463	1928/1929 ... ..	252,203	1928	505,806	
1929/1930 ... ..	990,000	1929	688,744	1929/1930 ... ..	748,446	1929	559,290	
1930/1931 ... ..	293,113	1930	585,067	1930/1931 ... ..	351,735	1930	467,754	
		1931	798,254			1931	693,563	

## APPENDIX XII.

## VALUE OF CLOVE EXPORTS AND DUTY ASSUMED OR ESTIMATED.

Calendar Year.	Quantity Exported.	Duty-paid Ex-Godown Value of Exports.	20% of Ex-Godown Value.	Rate per Frasila.
	Frasilas.	Rs.	Rs.	Rs.
1913	508,935	59,59,185	11,91,837	2-34
1914	484,869	49,72,363	9,94,473	2-05
1915	726,441	65,77,614	13,15,523	1-81
1916	579,509	62,38,940	12,47,788	2-15
1917	489,028	63,23,572	12,64,714	2-59
1918	475,584	87,14,509	17,42,902	3-66
1919	615,000	111,12,681	22,22,536	3-61
1920	246,348	57,47,520	11,49,504	4-67
1921	554,864	112,33,622	22,46,724	4-05
1922	597,193	111,95,319	22,39,064	3-75
1923	641,993	156,35,991	31,27,198	4-87
1924	542,781	119,08,065	23,81,613	4-39
1925	701,589	129,66,771	25,93,354	3-70
1926	506,794	83,46,527	16,69,305	3-29
1927	798,248	105,69,701	21,13,940	2-65
1928	505,806	84,50,572	16,90,114	3-34
1929	559,290	113,18,186	22,63,637	4-05
1930	467,754	95,48,086	19,09,617	4-08
1931	693,563	94,71,864	18,94,373	2-73
	10,695,589		352,58,216	3-29

## APPENDIX XIII.

COMPARISON OF BUDGET ESTIMATES OF CLOVE DUTY WITH ACTUAL RECEIPTS,  
1913-1932.

Year.	Estimated Yield.	Actual Yield.
	Rs.	Rs.
1913	9,00,000	15,97,785
1914	9,00,000	11,66,265
1915	9,00,000	16,24,680
1916	9,00,000	15,07,245
1917	10,00,000	14,57,055
1918	12,00,000	21,97,395
1919	15,00,000	23,82,015
1920	15,00,000	13,22,284
1921	16,50,000	25,82,153
1922	19,00,000	22,64,559
1923	24,30,000	37,72,616
1924	17,70,000	27,52,274
1925	20,50,000	34,20,291
1926	20,00,000	14,57,674
1927	20,00,000	24,37,771
1928	18,85,000	16,69,130
1929	18,35,000	17,55,741
1930	19,30,000	16,44,110
1931	19,65,000	18,44,000
1932	15,90,000	



## APPENDIX XIV.

## MINOR ADDITIONS TO INCOME.

Small increases which might be made in various miscellaneous items of taxation are as follows :—

*Motor Vehicle Licences.*—These are, at present, low in comparison with the rates prevailing in Kenya and Tanganyika and are :—

	Private Vehicle.	Business Vehicle.	Revenue obtained in 1931.	
			Private Vehicle.	Business Vehicle.
Motor Car ... ..	Rs. 30	Rs. 50	Rs. 5,452	Rs. 10,276
Motor Cycle ... ..	Rs. 15	Rs. 30	Rs. 742	—

The best course would be to divide the cars into two grades, viz., 15 cwt. and under, and, in the higher grade, over 15 cwt., so as to tax heavier cars at a higher rate. I suggest that those in the lower grade should pay an annual licence fee of Rs. 50 and those in the higher Rs. 75. It would seem advisable to drop the distinction between private and business vehicles.

Motor cycles are reasonably taxed and the rates should not be raised. The increased annual revenue from this source might be put at Rs. 9,000.

Higher rates should be charged for quarterly and half-yearly licences.

*Passports.*—The fees have been doubled since my arrival and the issue of free passports to Government servants has been discontinued. This is estimated to yield an additional Rs. 1,000 annually.

*Stamp Duties.*—The incidence of these duties, in the case of conveyances, etc., falls largely on the agriculturist and I do not consider that any additional burden, which might also result in a restriction of business, should be imposed. Apart, however, from the revenue aspect, provision should be made for administrative reasons for the compulsory registration of discharges of mortgages. A stamp duty on these discharges of, say, Rs. 1/- where the value of the property did not exceed Rs. 500 and Rs. 2 in other cases, would yield an extra Rs. 1,000 a year.

*Estate Duty.*—Proposals were made by the Administrator-General for a revision of the rates of estate duty which, if adopted, might secure an additional Rs. 28,000 a year. On the whole this addition, working out at the rate of an extra one per cent. in the case of the normal estate, should cause no real hardship but a question of policy is involved as it falls largely on small landowners. I do not recommend the introduction of complicated succession and legacy duties.

*Acetylene gas.*—As stated in the note under "Port and Marine," the present charge of 3d. a cubic foot made to neighbouring Governments for the supply of acetylene gas is insufficient to cover the cost, if interest on capital expenditure is taken into account. The rate should be increased to 3½d. which, after allowing for the possibility of a drop in receipts, should yield an extra Rs. 1,000 a year.

*Government Dairy, Zanzibar.*—The sum received from rents of cow sheds, etc., in the Government Dairy is insufficient to cover recurrent charges as well as to meet interest on the capital cost of £10,000, and the rent should be raised as far as the conditions permit.

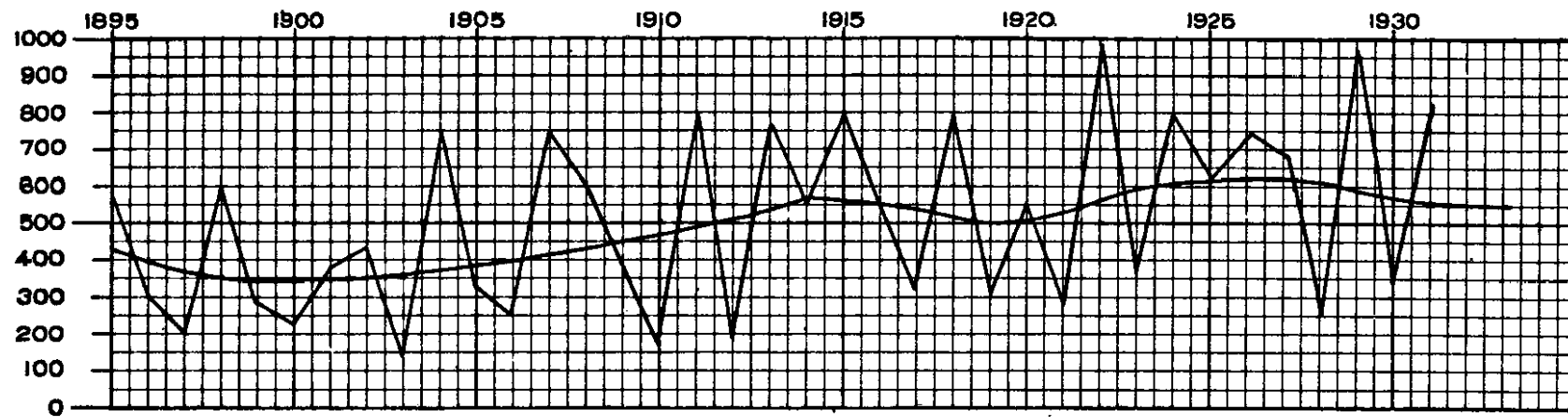
APPENDIX XV.

STATEMENT OF INVESTMENTS ON ACCOUNT OF SURPLUS BALANCES. 1922-1931.

	Year of purchase.	Amount purchased.	Cost.	Present position.	Written off or on.		Value in books on 31.12.31.
1. New Zealand 4% Stock (1943-63) ... ..	Existing in 1922.	£43,900 0 0	£43,022 0 0	Still held	Depreciation 1930 £3,951 0 0 Depreciation 1931 £8,121 10 0	—	£30,949 10 0 @ 70½
2. Southern Nigeria 3½% Stock (1930-1955) ...	Existing in 1922.	£5,838 14 4	£5,613 0 0	Still held	Depreciation 1930 £825 5 1 Depreciation 1931 £379 10 4	—	£4,408 4 7 @ 75½
3. Jamaica 4% Stock, 1934 ... ..	Existing in 1922.	£7,978 4 10	£7,983 14 7	Still held	Depreciation 1930 £85 5 5 Depreciation 1931 £359 0 5	—	£7,539 8 9 @ 94½
4. New Zealand 4% Stock, 1929 ... ..	Existing in 1922.	£41,437 19 8	£41,775 13 4	Sold 1922 for £38,328 11 2 for investment in (5).	Loss 1922 £3,447 2 2	—	—
5. India 5½% Sterling Stock, 1932 ... ..	1922	£39,925 11 8	£38,328 11 2	Sold 1923 for £39,899 12 8	—	Profit £1,571 1 6	—
6. War Loan 5% (1929-47) ... ..	Existing in 1922.	£30,622 13 0	£29,056 14 4	Sold 1922 for £30,334 11 4	—	Profit £1,277 17 10	—
7. British Government Treasury Bills ... ..	1923	£10,000 0 0	£9,911 5 0	Sold in 1923 at par	—	—	—
8. Government of India Treasury Bills ... ..	1922 and 1923	Rs. 56,96,700	Rs. 56,96,700 (less discount)	Sold at par in 1922 and 1923.	—	—	—
9. Indian Government 6% Rupee Bonds, 1927 ...	1922	Rs. 31,52,000	Rs. 31,70,450	Sold 1927 for	Loss 1927 Rs. 3,823.75	—	—
10. Indian Government 6% Rupee Bonds, 1926 ...	1924	Rs. 9,00,000	Rs. 9,19,562.50	Rs. 40,86,188.75	Loss 1926 Rs. 5,625	—	—
11. Indian Government 6% Rupee Bonds, 1926 ...	1923	Rs. 5,00,000	Rs. 5,10,625	Sold 1926 for Rs. 5,05,000	Loss 1926 Rs. 5,625	—	—
12. Indian Government 5½% Inscribed Stock, 1932	1925	£30,000 0 0	£30,638 10 0	Sold in 1927, 1930 and 1931	Depreciation 1930 £157 2 7 Loss 1927, 1930 and 1931 £17 18 10	—	—
13. Treasury 5½% Inscribed Stock, 1930 ... ..	1925	£28,899 14 10	£29,361 10 0	Sold 1927 for £29,232 17 10	Loss 1927 £128 12 2	—	—
14. Transvaal 3% Guaranteed Stock, 1923-53 ...	1925	£6,811 7 10	£5,381 0 0	Sold 1927 for £5,525 14 10	—	Profit £144 14 10	—
15. Indian Government 6% Rupee Bonds, 1932 ...	1927	Rs. 38,00,000	Rs. 41,00,952.50	Sold in 1927, 1928 and 1929 Rs. 19,77,000 for Rs. 20,54,357.38	Loss Rs. 79,217.67 Depreciation 1930 Rs. 1,10,198.20 Depreciation 1931 Rs. 47,853.75	—	Rs. 18,09,327.50 @ 99½ (Cost Rs. 19,67,377.45)
16. Indian Government 6% Sterling Bonds, 1933-34	1931	£14,537 14 9	£14,260 18 3	Still held	Depreciation 1931 £740 16 4	—	£13,520 1 11 @ 93

DIAGRAM I.

### CLOVE CROPS.



ACTUAL CROP FIGURES WITH  
HAND SMOOTHING.

DIAGRAM II.

# CLOVE EXPORTS



ACTUAL EXPORT FIGURES  
WITH HAND-SMOOTHING

AVERAGE COMPUTED BY FORMULA  
$$\frac{a+2b+c}{4}$$

AVERAGE COMPUTED BY FORMULA  
$$\frac{a+2b+3c+2d+e}{9}$$

# REPORT

on

## Co-operation and certain aspects of the economic condition of Agriculture in Zanzibar

by

C. F. STRICKLAND, C.I.E.

This document is the first part of Mr. Strickland's report only.

The second part is confidential and has not been published.

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## CHAPTER I.

1. I was invited by the Zanzibar Government, through the Colonial Office, to visit the Protectorate and advise on the re-organisation of the clove industry, particularly from the co-operative point of view. The Colonial Office further instructed me to extend my investigations with a view to making my report as comprehensive and useful as possible. I have therefore examined, so far as the limited period of my stay allowed, the general economic position of the agriculturists and the non-commercial urban classes, and considered the various ways in which they may be organised for the avoidance and relief of debt and the improvement of their social and economic condition. The Silviculturist, who is to report on the clove plantations and industry from the agricultural side, was not able to visit Zanzibar at the same time as myself, and an element of uncertainty has thus been introduced into my inquiries. This has not, however, seriously affected my recommendations.

Introductory.

2 The economic problem in Zanzibar is complicated by the diversity of races. The two islands of Zanzibar and Pemba, with an area of 1,000 square miles, contain a population of 235,000, including Arabs (14%), Natives (50%), and Africans (29%). There are also Indians and Goanese (6%) with a few Comorians (1%), the great majority of whom eventually return to their own countries. Europeans are negligible in number, and there are no European planters. Indians seldom interest themselves directly in agriculture, though many estates fall into their hands as the fruit of their commercial and financial activities. The larger clove and coconut plantations are for the most part owned by Arabs, while Swahilis,\* natives, and Africans own smaller plantations or cultivate cassava, maize, rice and other ground crops and fruits. Assimilation of these agricultural races to one another is taking place in two ways. Racially the original Arab conquerors have not maintained a pure stock, and evidence of intermixture is apparent; immigration of so-called Manga Arabs from Arabia on the other hand supplies a certain amount of new blood. Economically, again, the local and African communities are gaining ground, and some plantations of respectable size, together with a multitude of small plots, have passed into their possession. The latter communities are multiplying and are reinforced by settlers from the African mainland, who visit Zanzibar for labour on the clove plantations, and often remain permanently in the country. The net immigration of mainlanders in the years 1923-30 amounted to 3,876 persons out of a gross immigration of 21,699 mainlanders. It is in any case fair to assume that since slavery has been abolished and rural education is being extended, the backward races will advance, and Zanzibar will become, in an increasing degree, a land of smallholders. They will continue to grow cloves and coconuts, together with subsistence crops, though it does not follow that the larger plantation-owner, Arab or Swahili, will disappear.

The Races of Zanzibar.

The natives of these islands (Wahadimu, Wapemba, Watumbatu and Shirazis) are found in the outlying regions, especially on the East Coast. Their manner of life and of cultivation is simple, and they present for the moment few economic difficulties, though the improvement of communications and the increase of population (1921, 217,000; 1931, 235,000) will in course of time disturb their tranquillity. The first essential is to secure them in the possession of their land, and the second, to offer them better varieties of food crops and fruits. Indebtedness is comparatively light.

3. The Arabs at the other end of the social scale complain of great financial embarrassment. A high standard of living and of pride involves expenditure which, since the loss of their slaves, cannot be supported without personal effort and labour; and for this many of them are disinclined. There are signs of an altered outlook in certain families, and the Manga immigrants are industrious and thrifty, but the majority of the younger resident Arabs tend to congregate in the towns and adopt an easy life. Meanwhile the price of cloves and of copra has fallen in sympathy with the world movement, while the wages of harvesting labour had, until recently checked by the Clove Growers' Association, been rising steadily. They are still considerably above the real pre-war level. The Arab planters have therefore been unable to meet their obligations to the Indian merchants

\* The loose term Swahili, no longer used in the Zanzibar census, is often applied to all Africans and Zanzibaris who do not claim to be Arabs. I employ the word to mean all non-Arabs, excluding also the Indian and the European. When speaking of "natives" in non-plantation villages, I am referring to the aboriginal races (Wahadimu, Wapemba, etc.) who are not descended from the former African slaves of the Arabs.

and money-lenders who finance them for domestic as well as agricultural purposes, and their omission to make punctual payments or to provide for future needs has brought them into a position of distress. Their situation is in one respect better than that of their brethren in Palestine ; there is no agricultural community, such as the Jews, competing for the immediate occupation of the soil, and the Zanzibar Arab, if he loses ownership, frequently remains on the plantation as a tenant. He is on the other hand in a worse plight than the Malay, who after selling out to a Chinese in payment of his debts, has still a great reserve of undeveloped country on which to settle. There is little land in this Protectorate which is suitable for cloves and is idle or not otherwise employed. The Arab is thus being transformed from a free landowner to a tenant of an absentee landlord or at best an impoverished mortgagor.

Swahili  
Indebtedness.

4. The danger to the Swahili, whether growing cloves, coconuts or ground crops, is even greater. His property is smaller, his credit lower, and his outlook usually narrower. The only source of finance for him is the local Indian or Manga Arab shopkeeper from whom he buys all his requirements on a running account and to whom he delivers his produce. In neither relation is he able to contest the price, the rate of interest, or the quality of the goods. Unless he has—as some smallholders have—the self-control to buy and sell only for cash, and fill any deficit in his income by an extra period of paid labour on a plantation, he incurs a debt which mysteriously grows and soon exceeds his capacity to repay. His holding is often of too slight a value for the shopkeeper to take in mortgage, and he is obliged to execute a real or a fictitious deed of sale. I have convinced myself by an examination of the available figures that the Swahilis (among whom, for the purpose of this argument, I include land-holding Africans) are losing their property to Indians and to Arabs more rapidly than the Arabs are losing to Indians.

Burden of  
Debt.

5. The actual amount of debt does not appear to me extremely heavy. Though I make no attempt at an estimate of the total, the returns obtained from individuals by administrative officers do not indicate, in the majority of cases, a burden which a hard-working man could not shake off by steady and intelligent effort. A study of probate cases, insolvency cases, and the files of civil suits leads me to the same conclusion. The trouble is rather that the debtor has never been trained to make the required effort, and has no alternative source of credit (other than the harvesting and storage advances of the Clove Growers' Association) on which to draw. There is no co-operative organisation, and the borrower is in the power of the money-lending produce dealer. It is not my object to revile the latter. Though the rates of interest charged are ordinarily high, 50% and more being not unusual, bad debts are no doubt many, and a punctual borrower on good security can obtain money as low as 7½ or 8% (9% in Pemba, which has a worse general reputation in respect of repayment). Interest varies with the character of the individual, and a remarkable Swahili came before me who by labour and trading had acquired a substantial property with no original capital whatever. When questioned as to the causes of the failure and indebtedness of others, this man spoke of their excessive expenditure, the buying and leasing of too many plantations with borrowed money, and the lack of business experience. To these I must add the habit of gambling on the price of cloves by holding up their stock for long periods. The Swahili in question referred with gratitude and goodwill to his Indian financier, to whom he was paying interest at 12%. Thanks to his defective character and to the specific causes quoted above, the producer, whether Arab or Swahili, is in a weak bargaining position in face of the dealer and lender, and is habitually short of cash. When therefore he desires money, he is compelled, except during the season of his clove-sales, to accept any terms on which his creditor may insist. A mortgage, a fictitious sale, usurious interest, and the entry of an unreal sum in a pronote, any or all of these may be the consequence, and if, as is probable, he is negligent in repayment, he is likely to lose his land. For this reason the occasional loans issued for cultivation and harvesting by the Clove Growers' Association have a peculiar value, and the former bonus paid by the Government on young clove-trees, whatever its defects, was likewise useful, since it placed money in the hands of the producers which they could apply to agricultural objects without resorting to the money-lender.

## CHAPTER II.

## CO-OPERATION.

1. The need for co-operative organisation in this Protectorate is visible on every side. I have discussed the indebtedness which, though not in itself extremely heavy, is such as to cramp the movements of the debtor and subject him to a creditor's will. The bigger men fall into the hands of financiers, dealers and urban lawyers, the smaller are unduly dependent on the local shopkeepers, whether Arab or Indian. The market for agricultural produce is restricted by the grower's helplessness, and the improvement of the produce is in several ways delayed by the indifference of the middlemen. The use of old-fashioned copra-kilns is a striking instance. Clerks and persons on regular pay are also in trouble, and though the extravagance of both agriculturists and non-agriculturists is often the cause of their distress, exceptional strength of character is required to resist the general tendency to misuse of money. There *are* exceptional men. A Swahili who now owns estates worth Rs. 12,000 described his simple beginning with the purchase of a donkey for Rs. 50, saved from the proceeds of daily labour, the successive steps (buying a better donkey each time) which ended in the venture of buying a small plantation, and the caution with which he extended his operations, never plunging too deeply. But such men are not the average. The average man will save more readily, and will defy public opinion more boldly, if he is one of a group who are pledged to similar economy. The real foundation of Co-operation is, in fact, a reform of character. For extravagant and swollen-headed men, so long as they remain such, Co-operation can do nothing, and their more sensible neighbours must gradually displace them.

Need for  
Co-operation.

2. The reform moves slowly, and though I am convinced that all classes and races in Zanzibar have much to gain from Co-operation—not always in the same form—I do not expect quick results, and should be extremely sorry to see any attempt made to arrive at them. Each community has its own method of imprudent spending, and its own defects in commercial organisation, which can only be remedied by persuasion and example. But after considering the position on the spot I have no doubt that Co-operation can succeed here as it has succeeded elsewhere, if the right organisers are trained for the duty and given the indispensable help of the other departments of Government.

Prospect of  
Success.

3. There are indications of a desire for joint action. Collaboration is natural among the simpler people in all countries, and communal agreement, to build a house or to clear the fields at sowing time, may still be observed in the outlying districts of Zanzibar. Provident Clubs of a crude kind are created by Swahilis to meet the expense of a funeral for needy members or for other objects. There are pig-hunting clubs, due to official stimulus, which endeavour to protect the crops. And Ngoma (dance) Clubs are only too prosperous.

Signs of  
Joint Action.

The Government Savings Bank receives a certain measure of support, but official methods may be distasteful to the public. A private Savings Society, conducted in a religious institution in Zanzibar, has received considerable deposits, and clearly renders a welcome service to labourers who place their earnings in its charge. Savings accounts are also arranged by schoolmasters for their pupils, and are not unpopular.

4. Thrift, the repression of extravagant customs, the avoidance of litigation, improvement of crops, the joint sale of produce (of agriculture or handicrafts) are all tasks to which a Registrar of Co-operative Societies will set his hand. I propose that an administrative officer of suitable temperament be appointed to this duty, and given training abroad in co-operative methods. The ideal man will be accustomed to touring, and ready to pitch his tent at a distance from the towns. He should speak Swahili freely and be sympathetic towards the people though not blind to human faults. He will be inclined to economic study, and will find it necessary to discover for himself in this Protectorate many facts concerning the life and customs of the poorer classes, which elsewhere are available from published statistics and from Settlement records. As the movement grows, the Registrar will be called upon to evolve new types of co-operative society, prepare their model bye-laws and guide their working. Some knowledge of audit must be acquired by him; previous training is unnecessary, for most of his societies will be very small. And when a financing institution is brought into existence, he must become a banker. Those who are interested in a fuller description of the qualifications and duties of a Registrar will find it in the Report of the Royal Commission on Agriculture in India, paragraph 376. The Government should select the best man and send him for six months' deputation to those parts of Europe and Asia which have developed a system of Co-operation among peasants.

Registrar of  
Co-operative  
Societies.



A knowledge of French or German or both is an asset on this journey. India (Bombay and the Punjab; possibly Bengal and Madras, if time permits) and Ceylon are the most profitable in Asia. On his return he should start a campaign of quiet propaganda in town and country, with the aid of an Arab or Swahili assistant. Since I am recommending an independent staff for the Clove Growers' Association, the Registrar's work may at first be chiefly among the smaller men. He will explain the model bye-laws to them in their homes, and though the influence of the local leaders, if used on his side, will reassure the timid, he will not rely on leaders only, but will insist on the discussion of a projected society with every prospective member. The District officers will encourage the people to listen to him, and if necessary arrange to bring them to the first discussion, but will use no pressure for the formation of societies. A non-spontaneous society is a pretence, and an unwilling member is always a nuisance. The Director of Education will invite him to address the schools, and in particular the Training School. Officers of all departments will allow him access to their subordinate staff. District and departmental officers should show an interest from time to time in any societies which are founded, offering advice to the committees but seldom directly interfering. Defects in a society, if not calling for immediate action, should be reported to the Registrar.

Working of a  
Credit  
Society.

5. By these means the first societies will be created, and in the earlier years the Registrar and his Assistant will audit them in person. The accounts will be simple. Each member in a credit society pays up a small annual subscription towards his share, and the collected shares and profits eventually suffice to meet all the members' needs; in the meanwhile they must borrow a capital sum on their joint and unlimited\* liability. It is not unlikely that a duly registered society, working under the supervision of the Registrar and subject to his audit, will be able to obtain the modest sum required for its current use from a commercial bank, but if this is not so, then Government should make an advance on the recommendation of the Registrar, repayable by instalments (as the members' own contributions grow) over a term of years. No large drain on the Treasury need be feared. By the time the societies are more than a handful, a central society of finance will be set up, and the inconvenience suffered in Malaya and many parts of India is an excess rather than a deficit of loanable funds. The rate of interest on Government loans should not be much, if at all, lower than that at which such a central society will hereafter be able to lend, in order that future borrowers may not be offended by the society's rates when State loans are discontinued. It is not really a kindness to lend State money at a privileged rate. It corrupts the borrower.

Pay and  
Position of  
the Registrar.

6. The Registrar's duties will be laborious. He will be a man of selected qualifications and will receive special training. Clearly, then, the Government will expect to retain him for a term of years in his post, and must guarantee him against loss. I recommend that he be granted a special allowance of £200, and that if at any time an officer junior to him acts as Provincial Commissioner, the Registrar also be granted Provincial Commissioner's pay for that period. It should also be understood that the Registrar is not less entitled than other administrative officers to be promoted to Provincial Commissioner's rank, for which in fact his experience will render him peculiarly fit.

However intimate the Registrar may be with the ways of the people, there will be occasions when a non-European will be better able to understand their mental movements and to win their confidence. An Arab or Swahili Assistant will be useful to the Registrar in this way, and will soon learn to teach the first co-operative lessons to a young society and to check their accounts. In my opinion the Registrar should choose and train his own man, drawing him from official or private employment, wherever the right temperament is found. It is therefore impossible for me to propose a scale of pay for him, but it will be wise to offer from the first a prospect of good pay and a pensionable appointment (after as long a probation as is thought necessary) in order to attract the right man.

The office expenditure should cover, in addition to a clerk, a sum for annual additions to the Registrar's library. A library of co-operative and of general economic literature should be steadily built up. The Registrar must think and originate, and mental fodder must be provided.

District Councils, if created, promise to be valuable agencies for conveying economic ideas to the people, and the Registrar should be free to address them and to regard them as his allies. The Councils will not be registered, will not be recruited by voluntary accession, and will have no economic experience. I do not therefore advise that any economic venture, such as the building or management of an improved copra kiln, be entrusted to a District Council, so long as the Registrar believes it possible, even after an interval, to form a co-operative society for the same object.

The Registrar will not deal with the problems of agriculturists alone, and should not be subordinated to the Director of Agriculture. If he is not a separate department in himself, he is best placed under the Treasurer.

\* The liability of a village credit society is ordinarily unlimited, but in a trading society limitation is the general rule. In a savings society the liability is of course merely nominal.

7. A draft of a Co-operative Societies Decree and of rules under the Decree has been placed in the hands of the Zanzibar Government for consideration.

Co-operative  
Legislation.

8. The precise types of co-operative society suited to Zanzibar cannot be exactly foreseen. The Registrar will adapt and invent. The first type or group is concerned with finance. The Arab and the Swahili must learn the lesson of thrift, but it is not humanly possible to teach thrift to agriculturists in its pure form without credit. The larger plantation-owners will be financed against the security of their produce by the Cloye Growers' Association. These men do not really require other credits, and I see no prospect of the present generation using money wisely except on these specific terms. The smaller agriculturists deserve help to keep them out of the hands of the shopkeeper, and though they ought in the end to save enough, by share-contributions and monthly deposits in their own societies, to enable each man to borrow only his own money, this is impracticable at first, and the ordinary rural credit society will make advances to members for any prudent object approved by the Committee. Personal security only will be taken, and the rules under the Decree will provide for the enforcement of arbitration awards against defaulters without the procedure of a civil suit. Advances, within the sum which the committee thinks reasonable in each case, will be made to members for necessary but unproductive purposes such as domestic ceremonies, since the co-operator cannot avoid some expenditure under these heads, and can only be released from money-lenders if he is given credit, under the control and guidance of his fellow-members and the Registrar, for all objects.

Finance,  
Credit and  
Thrift.

9. Protests are from time to time made against the practice of imprisoning judgment debtors in default of payment, and the abolition of the rule is then suggested. I wish to protest in advance against this idea, in the interest of co-operators. An imprisoned debtor is only to be commiserated if he cannot pay, and it would be sound so to amend the law as to provide that an executing court shall not imprison in such cases. But there is a class of debtor who can pay but is unwilling to do so, preferring to use his money in other ways, and it is only fair to the creditor (whether co-operative society or shopkeeper) to maintain the full penalty against such persons. The returns of imprisonment cases which I have examined show that very few debtors remain in jail longer than a few days.

Imprison-  
ment for  
Debt.

10. Societies among clerks and other persons on regular pay should rely even more on thrift than the societies of agriculturists. Appropriate bye-laws are being procured, on which the Registrar can base a society of urban credit. I am confident that the clerks and employees of all communities in Zanzibar, including Indians, Goanese and Comorians, will welcome organisation on these lines, and though they may clamour at first for credits in excess of their savings, the Registrar should be hard-hearted on this point and should refuse to register any urban society of which the bye-laws allow excessive loans. Some concession may be made in a new society or to a new member, in order to assist him in repaying his old creditors.

Urban  
Credit and  
Thrift.

Urban societies are most conveniently created in an office or department, combining all communities in one institution. Recoveries and deposits can then be made at the time of drawing pay. The idea of a society in a single community is tempting; the members are familiar with each other's character and way of living, but the difficulty of bringing the members together for a meeting and of securing payments is greater than in an office society.

11. Arabs, Swahilis and Africans should also be invited to join the same rural society. There is no obstacle of language among the smallholders, and I do not recommend the admission of big landowners. Men of modest status will work together irrespective of a thin racial distinction, and there should be only one credit society in an area. The area may be quite small, and a membership exceeding 50 is often cumbrous. The impression that a strong President or a highly-educated Secretary are indispensable should be destroyed. The accounts and books are in vernacular and very simple. An honest Treasurer is much more important, but there should seldom be idle cash in hand.

Rural  
Societies.

12. Thrift is diligently to be taught and stimulated in the schools, and not only among the pupils. Penny banks and school-savings clubs are excellent, though societies of minors cannot be registered. But the schoolmaster will teach well what he has himself learned well, and I advocate voluntary savings societies (registered) among both rural and urban schoolmasters. The Registrar on his travels abroad will find models for imitation.

School  
Societies.

13. Thrift societies may subsequently develop into societies for (1) land purchase in the rural areas and (2) house building in the towns. These are advanced types, and demand much preliminary saving by the members.

Housing and  
Land-  
purchase.

14. The second main group of co-operative societies may be described as the commercial or professional. Agriculturists may prefer to purchase certain of their requirements in bulk rather than individually from a local shop, but their wants are seldom sufficient to justify a separate institution, and the credit society is commonly used. Sale of produce, too, in the case of smallholders who cannot

Agricultural  
Societies.

deal singly with the Clove Growers' Association, may be arranged through the credit society. The management of an improved copra-kiln\* on the other hand should be entrusted to a special society. The credit society will also serve to bring groups of men before the agricultural officers for instruction, and will bring them in a mood disposed to listen. So long as an agriculturist is indebted and thriftless, he is also suspicious and listless. When he has shaken off his debts he is a changed man, and will consider (but not necessarily accept) almost any scheme the Registrar brings before him. The agricultural officers should be invited to address such groups of men, whom they cannot spare time to teach singly, and the credit societies will persuade their members to observe the demonstration of new varieties of fruit, rice and other ground crops, and to try them on their own land under technical advice. The attention of the Agricultural Department has hitherto been given almost entirely to cloves and coconuts, the most important produce of the Protectorate, but an improvement of the minor crops and fruit will affect greatly the happiness and health of the population. I am not for a moment convinced, moreover, that smallholders will not grow cloves satisfactorily. They may retain fewer trees but will harvest more fully, and the ground will benefit from their cultivation of other crops. They can be taught through the societies to avoid such errors as crowding clove-trees with a forest of bananas.

At an advanced stage separate Better Farming societies will be organised.

Other possibilities are (1) the regularisation of the clubs for pig destruction; these should undertake also the fencing of ground-crops; (2) the improvement of the milk supply by joint transport to a town, joint sale to a shop, or (later) the opening of a co-operative dairy. The use of better bulls will be perhaps possible among persons so grouped; and (3) the introduction of better poultry and the joint sale of birds or eggs. Birds of an imported strain may be seen around a number of Swahili huts. None of these plans depends on the continuous help of a special veterinary officer; agricultural and medical officers can give all the advice *ordinarily* needed. The preparation of better hides and skins is a more technical matter, which cannot be handled in the earlier years.

Small  
Handicrafts.

15. The rural handicrafts should not be neglected. I understand that mats for clove drying are largely imported from Arabia in ballast, and economic competition may not be easy. There should, however, be a market on passenger ships in Zanzibar port for the more ornamental mats and baskets, even if the use of natural dyes cannot be revived. The soap industry appears to have perished in face of the mainland tariff, and the working of ivory is in the hands of a limited circle of Ceylonese shopkeepers. The experience of other countries tends to prove that local crafts cannot compete with mill products for purposes of utility but must find a luxury market in the highest qualities.

Fishing.

16. Fishing also deserves investigation. There may be scope for improvement in the type of nets, or still more in the marketing process; I am not impressed by the scheme for an expensive motor-boat to tow the vessels to and from the fishing ground.

Weights and  
Measures.

17. The regulation of weights and measures is a serious matter to agriculturists and small craftsmen, and a co-operative society of sale is handicapped if it, using true standards, is competing with rivals who use either dishonest weights or measures or those which have no certain meaning. The essential requirement is not a minute exactitude in units, the meaning of which is prescribed by law and fully known, but a frequent and impartial inspection to ensure that irregular or grossly incorrect units are barred from use. If Government can arrange to issue stamped weights and measures, there is no injustice in prohibiting the possession (no less than the use) of others.

Land in Zanzibar is still calculated not in accordance with its area but by the number of trees which it happens to contain. The system is fantastic and obsolete, and an impediment to clear thought. It is not true in Zanzibar, as it may be in the sands of Arabia, to say that the value of land resides in its trees. Smallholders grow ground crops, and a plantation may include cultivable bare spaces. I recommend that when the survey has been completed, the insertion of the area be compulsory in all documents presented for registration, whether the trees be mentioned or not, and that areas be also used to describe Government plantations and other lands which have already been surveyed. In the meantime square measure should be taught at an early stage in the schools, and its reality made plain by the measurement of school gardens (not only internal school rooms) and of all plots in them.

School  
Gardens.

18. I attach great value to the intelligent use of school gardens. Some of them are at present principally maintained for ornament. The Agricultural Department will be able to supply to the Director of Education a scheme of rotation and of comparative tests for the simpler ground crops, which should be distributed to the children in Roman Swahili for private reading. The children

\* The kilns devised by the Agricultural Department produce incomparably better copra, and smallholders will adopt them if a higher price repays the cost. In the first copra society of smallholders Government might experimentally supply a free kiln on the spot required, and record the exact cost and return of the kiln as worked by the people themselves.

can be stimulated by the allotment of little competitive patches in the garden for the practice of flower-culture as well as (not too advanced) cultivation of ground-crops. The Registrar will here find the members of his future Better Farming societies, and will also find occasion to put the parents to shame by pointing to the example of their children.

19. I have touched on urban credit and on housing as fields for Co-operation among non-agriculturists, and have spoken of the organisation of handicraftsmen. Co-operative Stores may perhaps be opened, but I am anxious here to sound a note of warning. A co-operative shop demands (1) considerable capital, and (2) unlimited loyalty. The members must provide the latter and much of the former. A shop, in competition with professional rivals, will not flourish on borrowed funds and a hope of public custom. Members should be prepared to finance their society to a large extent, and to make themselves liable (by bye-law) to penalties if they buy elsewhere the goods which are stocked by their shop.

Co-operative  
Stores.

20. The third main class of co-operative society deals with moral reform. I do not intend to dwell on the merits of such institutions, which are scarcely intelligible to the cynical. The answer to all mockery is "Solvitur ambulando": they work and succeed. In the end Co-operation which is solely economic must fail. The virtues of thrift, industry and harmony are only appreciated when they become habitual and are shared by a number of neighbours. The isolated man of virtue is a Pharisee and a prig until his companions begin to follow in his footsteps. I am, however, quite sure that this line of attack must be pursued from the beginning by the Registrar. A credit society obviously cannot lend to a drunkard or a gambler, a sale society will not receive goods from a grower who adulterates his produce. But such reform is not only to be taught as a side-issue. The arbitration society, which pledges its members to refer all quarrels to compulsory arbitration, and enforces this rule by a fine, is not a dream but a living reality. Even more notable are the Better Living societies for the restraint of extravagance (again with enforcement by penalty), the inculcation of right customs and the abolition of the bad. They will encounter many opponents and much ridicule, but courage will win. What is needed is a steady organisation of public opinion among the wiser men of each community, who at present are silent because they are disunited, while the profligate and the thoughtless are loud-voiced for lack of shame. There is abundant scope for co-operative societies of this sort, not least among the wealthier Arabs and Indians. Communal societies here function best, and the heads of each community should be called upon for their patronage and open support. This is essentially Co-operation, even though the societies in question may not enjoy an anna of revenue. They should be registered, and thus able to enforce their bye-laws and their fines.

Moral  
Reform.



## CHAPTER III.

## THE CLOVE GROWERS' ASSOCIATION.

History of  
the  
Association.

1. The Clove Growers' Association, commonly known as the C.G.A., is an unregistered body, founded in 1927 on the initiative of the Agricultural Department. It is intended to unite the plantation owners for control of the costs of production, especially of labour rates, for marketing the produce, and for financing the needs of the growers by loans before the harvest and by advances against the value of cloves stored in the Association's godowns. From 1923 to 1928 the Zanzibar Government paid a bonus on young clove trees, and in 1927 it was decided that membership of the Association should be a condition of receiving the bonus. A change of policy very soon afterwards led to a reduction of the export duty on cloves from 25% to 20% of the value, and the bonus on young trees was abolished. So long as the bonus was paid, the plantation owners readily joined the Association, even though membership was not compulsory, and the number of associates at one time exceeded 9,000. When, however, the only benefits in sight were harvesting loans, and the advances against deposit of cloves, the plantation owners became less interested since these services could be rendered by shop-keepers and licensed produce dealers. Although district committees in Zanzibar and Pemba islands continued to exist, I do not think they were often active, and the Association, which had never been a really living institution, was left in the hands of the agricultural officers, who carried out all the duties. The last published balance sheet (1929) shows 23,000 frasilas,\* out of a total crop of 930,000 frasilas, sold through the Association, and Rs. 362,000 (£27,000) advanced to members on a crop-value of £1,250,000. The Association has not handled a large percentage of the produce, the reason being that it is neither a compulsory and official institution, through which every grower is bound to sell, nor a spontaneous and co-operative organisation, claiming their loyalty because they have themselves brought it into being. It is unable, being unregistered, to enforce its rules of business (it has no bye-laws), and unable, for the same reason, to sue its members except through the Government itself. The Association is in fact a function of Government without the authority of Government, and the embarrassments due to its anomalous status have caused loss of time and labour to the agricultural officers. To create, but not to conduct the Association, was their proper task. Technical agriculturists are in no way qualified to carry on a business enterprise, and seldom welcome the charge. When relieved of it, they will be free to resume the more normal activities of their department.

Policy of  
abandonment.

2. The Association is nevertheless still in being, and its future has to be decided. The plain co-operative course would be to abandon all the financial and commercial side of its work, leaving the C.G.A. as a propaganda platform from which the agricultural department could address the clove-growers and invite them to improve their cultivation and their methods of marketing. The Registrar of Co-operative Societies would then slowly form local societies for joint sale, which would finally federate themselves under a single head. The disadvantage of this plan is that a long time, perhaps thirty years, will elapse before the whole edifice is built. Meanwhile the dealers will command the market and pay the producers the price which suits themselves. The moral effect of abandoning entirely a scheme which the agriculturists identify with Government will also be regrettable.

Proposals for  
Recon-  
stitution.

3. The alternative is to register the C.G.A. as a co-operative society, so to finance it that vigorous propaganda can be carried on, and to appoint a competent and independent Manager and staff. No half measures will be effective. If the C.G.A. is not to be a thoroughly sound and business-like institution, let it be closed. But it cannot be efficient without an adequate income; if it is to survive, a source of income must be found, from which the staff (now paid by Government in the Agricultural Department) can be paid. I estimate† the annual cost of salaries at present to be about £800. A good Manager with business experience, with knowledge of the Swahili language and of the Zanzibari temperament, and able to visit the plantations as well as to manage the office and market the cloves, will cost perhaps £1,000. A round figure of £2,500 should cover the staff and office charges.

Funds for advances against stored cloves have also hitherto been drawn from the Treasury, which has sometimes been obliged in consequence to pay interest on a Bank overdraft. The precise cost of this privilege cannot be isolated and ascertained. The maximum sum drawn has been about £40,000 (Rs. 5,30,000). As an independent society the C.G.A. ought to obtain its own funds from the

\* A frasila = lbs. 35 by weight.

† Some clerks give only part of their time to the C.G.A., an exact figure is unobtainable.

Banks, and interest at 6% on £40,000 will be £2,400. If the propaganda campaign is successful, the inflow of cloves and the demand for advances will increase, but the society may then be able to meet the extra charge from its commission on sales. The total sum required is thus about £5,000 per annum, the present income from commission being set against the cost of propaganda and incidental expenses.

4. Government may prefer to make a direct subsidy to the Association for a term of five years, after which the position can be reviewed and the utility of the co-operative C.G.A. considered. It should be possible to reduce and finally to discontinue the subsidy. Its amount can also be reduced from the first by providing the money, for advances against stored cloves, from the Treasury balances as hitherto. The society is then less independent and co-operative, and Government will have to face an outcry if at any later time it desires to withdraw this particular aid from a flourishing and representative body of plantation owners. If, however, the Treasury supplies the money, there should be no uncertainty and no delay in producing it at the society's demand. The manager must know definitely, at the beginning of his season's operations, that he can make his usual advances to members. In considering whether to grant the subsidy, it should be remembered that cloves are the most important crop in Zanzibar, from which 33% of the revenue is drawn; that the plantation owners, if not financed for their agricultural business by the C.G.A., are thrown into the power of the dealers; that co-operative credit societies are unsuited to big landowners; that the character of the plantation owners renders a solvent Land Bank impossible; and that consequently if the C.G.A. is not able to give them harvesting loans and storage advances and to market their produce, they cannot escape from their present troubles.

A State  
Subsidy.

The annual pay of the superior agricultural officers, who have been largely concerned with C.G.A. business, amounts to about £4,000, and it will not be an exaggeration to say that over half their time has been given to the Association, in addition to that of their subordinates. The full services of these men will be restored to Government. If this expenditure be taken into account, it may be argued that Government is already paying a subsidy of £3,000 per annum.

5. If a subsidy is not approved, another method—which I prefer—for financing the C.G.A. is to require all cloves to pay the brokerage commission of that body, whether actually sold by it or not. The Association is at the disposal of all producers, and if they do not wish to pay the charges of a private dealer in addition to this commission, they can bring their produce to the C.G.A. and abandon the luxury of paying for two agencies. The producer who sells directly through the Association (which is a marketing and warehousing institution but does not take property in the produce) will at the time of delivering his consignment pay two annas per frasila on cloves, two cents of a rupee per frasila on stems and mother cloves and *khoker*, and four annas per ton on copra. This produce, if bought from the C.G.A. godowns by a dealer who does not himself ship it for export, will circulate together with the C.G.A. receipt\* showing the commission payment. Consignments sold by the producer to or through a dealer will pay the commission on presentation to the Customs House for export; the shipper will then pay at the same rate on the basis of 4 or 5 frasilas (as the case may be) to the bale. Such consignments will have passed through the market at a lower price, since the first buyer will naturally deduct the commission from his payment to the producer. The latter has therefore nothing to lose by dealing directly with the C.G.A. which will market his goods for him. There is in theory a possibility of a buyers' ring being formed against the C.G.A., but local experience indicates that such rings are fragile.

Compulsory  
Commission.

6. My draft of a Co-operative Societies Decree provides that when a large majority of the producers in any district or area are marketing through a certain co-operative body, the minority may be compelled by the Government to do the same. The idea is familiar to Dominion legislators (Australia and South Africa exhibit samples of such laws) and is contained in the recent Agricultural Marketing Bill of Great Britain. If similar action has ever to be taken in Zanzibar, enforcement of the decree will be simple, since every clove—or copra—dealer holds a license, which can be withdrawn.

Precedents  
for  
compulsion.

7. The Association will be able to raise money from the Banks on the ordinary terms, unless the Treasury wishes to supply it, for storage advances against produce deposited for sale. The storage agreement, which should be drawn up in Roman Swahili, with or without other languages, will contain clauses permitting the Association (1) to pledge the produce in support of the Bank's advances, (2) to sell it, with or without the consent of the owner, if the margin of security between the sum advanced to him and the value of his consignment is unduly narrowed. The amount of the advance should not exceed 50% of the value at the time of deposit, but might be cautiously raised to a percentage agreed with the Banks, if the market remains firm. There is, however, a strong tendency, in Zanzibar

Method of  
business.

\* The receipt for large consignments can be issued on several sheets, each for 100 frasilas, in order to facilitate subdivision in market dealings.

as elsewhere, to gamble in agricultural prices, and cloves, having ranged from Rs. 34 to Rs. 10 per frasila in recent years, offer great temptation. The C.G.A should not lend itself to the purpose of gambling, and it will be well (1) to fix an absolute limit, say June 30th of the following year, by which all stored cloves must be sold or removed (and the advance repaid in full); (2) to charge interest on storage advances, or rent on consignments on which no advance has been taken. The privilege of free storage has been much appreciated, and I see no harm in its continuance for the first three months. The charge for the second three months might be one anna monthly per bag of 3 frasilas, which works out at  $4\frac{1}{8}\%$  interest on an advance of 50% of the value (assumed for this calculation to be Rs. 12 per frasila and Rs. 36 per bag). For the third three months the rate might be two annas, and thereafter three annas until the goods were sold. Half rates might be charged for storage only to those who took no advance.

Harvesting  
Loans.

8. The issue of loans for cultivation and harvesting is a duty of Government, which may with advantage be performed by the C.G.A. as its agent. No security has hitherto been taken, the borrower only promising to sell his crop through the C.G.A., and defaulters have been numerous. A chattel mortgage will in future be taken on the crop, and default though still possible can be punished by a special penal clause in the decree, as in the Kenya Ordinance. Such loans have been made without interest, and I would continue this remission, covering such expenses by the flat rate of commission on sales, as proposed above.

Storage for  
Producers.

9. Unless there is unexpected space in the godowns, the Association should store cloves only for the producers, and in any case should make no advances to middlemen and dealers.

Business in  
Pemba.

10. For reasons of convenience rather than of principle no attempt should at present be made to store in Pemba, each consignor being left to convey his own goods to the Port Office godowns and to arrange his own shipment. The running of special lorries will also be unwise until the Association is well established. The Registrar will no doubt aim at organising the joint transport and sale of the produce of smallholders, and the time may come when collection and shipment from Pemba will again be undertaken by the C.G.A. Too much should not be taken in hand in the beginning. On the other hand if storage advances can be made at the three Pemba ports against receipts for goods given by the Port Office clerks, the Pemba growers will be attracted towards the Association. The delay involved in obtaining a loan from Zanzibar on the arrival of the consignment will be unpopular.

In such an arrangement the three District officers of Pemba may be able to assist. There will be a C.G.A. clerk in each District Office, to whom the list of plantations will be handed over by the agricultural officer after each annual recension. This clerk will certify from the list that an applicant for a storage advance is a plantation owner, and will draw up for the District Officer's signature the order for the advance (to be paid through the Treasury) at a rate laid down from Zanzibar. He will also receive applications for cultivation and harvesting loans, verify the applicant, and bring the petition before the District Officer for approval. Repayments will similarly be made into the Treasury by the order of the District Officer, the account being checked by the C.G.A. clerk. If this amount of supervision can be contributed by the Pemba officers the Pemba growers will be assisted in making use of the C.G.A. The cultivation and harvesting loans, distributed on behalf of the Government, are part of their normal duties; I do not think they are handled in other countries by the agricultural department. And the financing of cloves on the market is of high importance to the resources of the State.

Purchase of  
requirements.

11. The manager of the reconstituted Association may find means of purchasing bags or drying mats for the members at profitable rates.

Copra.

12. The Association should not at first seek to market a large quantity of copra. Its primary duty is towards the clove growers, and if the copra business increases in size, the creation of a separate coconut growers' association should be considered. It may be unnecessary, but the handling of copra in large quantities by the C.G.A. should be the result of a definite policy, not of an accidental growth.

Board of  
Control.

13. The C.G.A. will be a unique and formidable body. In addition to professional audit and a competent professional staff, it will call for special attention and supervision from Government. Before the Co-operative Societies Decree is passed, and the Registrar is appointed and trained, there must be an authority to watch its movements, and divert it from possible errors. I doubt whether such an authority can ever be removed. There will be required, at all events for a period of years, an external Board of Control, set up in accordance with a Decree, which will not try to conduct the daily business of the society—the Manager will in such matters be subject to the elected officers and committee—but will advise and if necessary overrule the committee in major questions, especially those relating to financial security. The appointment, pay and dismissal of the Manager, the taking

of security from the clerical and godown staff, the fixing of the rate of commission (if compulsorily imposed on all cloves), the margin of security to be reserved in case of storage advances, the selection of the auditors, and the arrangement of financial terms with the Banks are all questions of grave importance in which the Government of Zanzibar is inevitably interested. I propose therefore that a Board of Control be constituted by Decree, of which the Treasurer, the Comptroller of Customs, the Director of Agriculture and the Registrar of Co-operative Societies should be members. The Board is official, and the addition of unofficial members as such is not advisable, though it will be open to the Board to co-opt by name from year to year any official or non-official whose knowledge of plantations lends value to his opinion.

14. I have prepared a draft of by-laws for the C.G.A. which if the Co-operative Societies Decree is not in force, can be submitted to the Board of Control for approval under the Control Decree. When the Co-operative Decree and the Registrar are in being, the Association should become a co-operative society, the by-laws being then registered under that Decree, and the control can be shared by the Board and the Registrar. I suggest that the Board might guide the business, and the Registrar the co-operative side of the society, i.e. the observance of by-laws, and the stimulation of the managing committee and the general and district meetings to take part in the society's affairs. The Registrar will also group smallholders in local societies which will affiliate themselves to the C.G.A.

Clove  
Growers'  
Association  
By-laws.

15. Objection will certainly be raised by the indebted plantation owners, that in addition to their mortgages they are encumbered with open debts to dealers and shopkeepers, and cannot sell through the C.G.A. until these are cleared. This argument has force, and I recommend that a sum of money be lent by Government to the Association to free a few of the growers from shop-debt in each year, in return for a chattel mortgage on their crops. Large sums should not be lent, and each grower should be expected to contribute from his own resources a substantial part of the amount; the best moment is just after the sale of his cloves. No individual should be helped a second time, if he has borrowed again after the first release. Payment to the creditor will be made by the Association which may by negotiation be able to obtain a reduction of the demand. The debtor must entirely abandon dealings with such financiers; and since he is most likely to do so when relations have become unfriendly, the time to help him is when he has been sued by his creditor. It is open to any debtor to compel his unsecured creditors to sue him, by ceasing to make payments to them.

Relief of  
open debts.

16. In conclusion, I offer a few comments on the clove industry; with some diffidence, since several aspects of this question concern the silviculturist rather than the economist.

Regeneration.

- (1) Crop statistics appear to show that the Pemba harvest is increasing less rapidly than that of Zanzibar, which now represents a larger proportion of the total (on a period of years) than thirty years ago. The Pemba trees, on the average, are older, and in certain areas are decaying. The item which renders replanting unproductive, more than any other, is the cost of removing the old trees and stumps.
- (2) This cost would be to some extent counterbalanced if a variety of clove tree could be evolved, which would bear fruit at an earlier age. Early-flowering trees occasionally occur, and though grafting of cloves has not been successful, seed selection may bring out what is probably a recessive quality.
- (3) Smallholders can bear the cost of clearance and replanting better than large plantation owners, because they supply their own labour. It may be possible to restore decayed plantations by settling smallholders on them.
- (4) Rationalisation, in the sense of an attempt to raise prices by holding up cloves on the market, is a dangerous policy, and will bring loss on every person and institution in Zanzibar who touches it. It will only benefit Zanzibar's competitors. The policy has disastrously failed in Malaya (rubber), Brazil (coffee), Egypt (cotton), and North America (wheat). There are 40,000 acres under cloves in Madagascar, and though it is held that shortage of labour will limit the amount of the crop which can be picked to 3,000 tons (against 10,000 from an equal area in Zanzibar), I am very incredulous of this limitation. If the French authorities had believed that labour was not available, they would not have induced the natives, as they have done, to plant 40,000 acres.
- (5) Rationalisation in the sense of marketing the crop evenly throughout the year is a more reasonable policy, and when the Clove Growers' Association can handle the bulk of this crop, a measure of success may be attained. But it is not certain that harvest-time prices are unduly low, and my experience in other countries is that producers lose more, in the form of interest on their debts, by holding their produce than they would lose by selling at harvest prices.

Rationalisa-  
tion.



**Government  
Plantations.**

- (6) The smaller Government plantations are not, I think, of value to Government, unless favourably situated for experiment or *demonstration*. Areas used for such a purpose cannot be expected to pay a commercial return, and should not be called upon to do so. The larger plantations should be managed on a commercial system with costings, and with a balance sheet in which debits will appear for the pay of the technical staff devoted to their management (including a share of the pay of the agricultural officers, if the plantations are under their authority), and credits (rent) for all land which is surrendered to the agricultural department for experiment and demonstration, except in so far as the profitable management of a plantation is in itself a demonstration. Government will then know to what extent the "commercial" plantations are paying their way. A skilled and independent Manager will be required.
-

## CHAPTER IV.

## LAND-SURVEY AND TITLES.

1. The question of a land survey and of the registration of titles touches my inquiry very closely. In the first place I find from an examination of case-files that disputes as to boundaries, especially in the form of a claim for compensation for cloves wrongly picked from the trees of a neighbour, are not infrequent, and the resulting litigation is among the causes of indebtedness. It is noteworthy that these quarrels, so far as I can discover, are more common on the smaller than the larger holdings. There is, secondly, the uncertainty as to titles, which must tend to raise the rate of interest on loans, though it is less important than the character of the borrower. This uncertainty, which will hamper the operations of every co-operative society, is also a peculiar impediment to loans by Government, which should not, if it is avoidable, lend on a doubtful security, and the longer the period of the contemplated loan, the greater the risk. It is in the third place impossible to collect or maintain with accuracy the statistics regarding the occupation and transfer of land, which every civilised Government considers necessary, nor can the agricultural department give with any confidence the figures of cultivation and production, such as were demanded by the International Institute of Agriculture for the World Census of Agricultural Production in 1930-1931. Zanzibar was unable to take part in the census proceedings. If at any time a change in the mode of raising revenue in Zanzibar should be contemplated, substituting direct for indirect taxation, a survey would be an inevitable preliminary.

Need for  
Survey and  
Registration.

2. An aerial survey has been proposed, not so much as an alternative to the cadastral, as in order to assist the Agricultural Department in ascertaining the area under plantations and the condition of the trees. Such a survey would be useful in some respects but its cost is uncertain, and a local examination by an aerial surveyor will be needed before an estimate can be given. The lack of ground suitable for landing may lead to the use of flying boats rather than land machines.

Aerial  
Survey.

3. Another cautious suggestion is that every plantation which comes before a court in judicial proceedings or is dealt with in probates or with regard to which any document is presented for registration, shall be surveyed at the cost of the parties. The planted areas of the islands would thus be completed in perhaps 100 years, but the cost of a special approach in each case from the traverses, laid down by the Survey Department in the topographical survey, would be extremely heavy, especially on the smaller holdings.

Gradual  
Survey.

4. It is sometimes argued that no survey is necessary. Disputes about boundaries and titles are declared to be few, and a local inquiry, with a search of the register and probate files, should give reasonable safety. This can be further secured, so far as Government loans are concerned, by charging higher interest and building up an insurance fund. I do not, however, agree that disputes are few, and this contrary opinion is supported by a majority of the administrative and judicial officers whom I have questioned, though not by all. It is also advisable to keep the rate of interest on Government loans as low as possible.

Arguments  
against  
Survey.

5. From another point of view it is suggested that boundaries can be fixed by the compulsory planting of areca-palms or other conspicuous trees at each corner of a plantation. There are, however, very many angles and sides (which cannot be straightened without a survey) and many existing areca palms. Confusion must inevitably result. The maintenance of the list of plantations in the agricultural department—a measure in itself to be recommended—will not go far to remove disputes or to prevent fraud by applicants for loans. In the absence of a map and a record of rights, its entries cannot be regarded as trustworthy.

Tree-beacons.

6. A cadastral survey seems to me therefore an absolute necessity, and it must be accompanied by an inquiry and a settlement which will establish either a full title or a presumptive claim. The Survey Department is at present engaged on a topographical survey of Zanzibar Island, which is due for completion in September, 1932, and is also dealing with the Government plantations, of which all the larger have been finished. The estimated cost of a cadastral survey of both islands in 6 years is £80,000 (the figure, frequently quoted, of £150,000 being due to an erroneous multiplication of £75,000 by two), but this does not cover the cost of the settlement operations which must precede the work. The Surveyor cannot prepare a map of plantations which (as at present) show no clear boundaries. The boundaries must be fixed by a Settlement Officer and the opportunity of compulsorily straightening them should not be lost. The limitation of survey to the larger estates does not seem

Cadastral  
Survey and  
Settlement.

to me practicable. Big and small plantations are intermingled, and the omission of the smaller would render the map a kaleidoscopic picture. It will not on the other hand be worth while to treat in detail the rocky waste known as "*wanda*," wherever it is not claimed by private individuals and is recorded as owned by Government. In such cases it will be sufficient to demarcate the outer boundaries, and to require the *Sheha* or headman of the circle to report in future any unauthorised occupation of the land. But if *wanda* is claimed by anyone, the Settlement Officer will investigate the claim, and the surveyor will survey any such area pointed out by the Settlement Officer, just as though the plot were a plantation or other holding. I consider that the cost of the survey and settlement should be borne by public funds.

The Bush  
country.

7. Survey and demarcation of the bush and occasional forest in which the native tribes carry on their rotating system of ground-crop cultivation, is impracticable; the few coco nut plantations can be surveyed, and plots which are walled and permanently cultivated, usually near a village site or a road, can be measured, but elsewhere the clearance of bush would be too expensive, and the results, in view of the shifting cultivation, would be impermanent.

Granting of  
Titles.

8. There are obvious advantages in granting an absolute title to the land surveyed, but it may be doubted whether the Settlement Officers will be able to keep pace with the survey, if they are to make a full investigation. Succession to many of the smaller plantations appears to be informal, and without probate proceedings. Where there is no disagreement among the heirs of the deceased, and no creditor whose claim, probably on a running shop account, is not acknowledged by the heirs, the *sheha* apparently does not always report the case, and the son or other heir slips quietly into his father's place. I found the same situation in Lower Egypt a few years ago, and have no doubt that those administrative and judicial officers, who describe the custom as common in Zanzibar, are correct. The probate charges, and the share of the property taken by the Government in certain contingencies, also make the heirs less anxious to come forward. Such cases, as well as disputes, may so occupy the time of the investigators that, unless a large number of settlement officers are appointed, the surveyors will be delayed. If there are 36,000 plantations, and the work is to last 6 years, two Settlement Officers must dispose of ten cases each on every working day, and if, as is highly desirable, they are required to straighten the boundaries, at least four if not six men (in the two islands) will be needed. The proceedings of the Settlement Officer should therefore be of a summary nature, but it will be advisable to give him final powers in case of petty boundary disputes, leaving only the larger claims to go before a Land Settlement Board as proposed in the Land Settlement Decree. It would be possible, indeed, to drop the idea of the Board, and let the Settlement Officer, after straightening the boundaries (which the surveyor would immediately demarcate), give a presumptive title only to the person whom he found to be in possession. The aggrieved party would be free to sue in a civil court, and I do not think he would often do so. The presumptive title should become absolute, if no suit was filed within a prescribed period, say two years. In the meanwhile any party wishing to make a permanent alienation of his land would be required by the Registrar of Documents to prove his title to it. The boundaries of an estate subsequently subdivided, or of any holding allotted by Government to an individual in the *wanda*, would be demarcated either by the Survey Department or by District Surveyors under the administration, the parties supplying the local labour and the cost of the boundary marks.

District  
Surveying  
Staff.

9. If on the completion of the cadastral survey the retention of a Survey Department was found to be unnecessary, it should be practicable for the District Officers to carry on the duties of maintenance. A District Officer in India with no professional training in surveying is able to re-measure land which has once been fully surveyed and to bring the maps and records up to date. The task is usually entrusted, every twenty to thirty years, to a District Officer appointed to be a Settlement Officer. The Survey Department is not employed. Indian surveyors on Rs. 20 per mensem, under supervisors and Indian officers on pay from Rs. 50 to Rs. 500, do the whole work under the guidance of the Settlement Officer. They are aided by the regular maintenance of (1) quadrennial registers recording the presumptive rights in lands (an absolute legal title in India is unusual), and (2) a register of mutations, in which the village clerk enters all alienations or successions since the last quadrennial register, and on which he obtains the orders of an administrative officer for each entry. The proposed Agricultural Middle School will be able to train such clerks and surveyors for this Protectorate, or a temporary school can be opened from time to time to give six months' training to boys who have passed the elementary schools. I do not suggest that the village registers be kept up in the plantation areas, where it will be comparatively easy to bring the maps and the record of titles up to date at the end of each decade or each generation. They are needed rather in the non-plantation villages which will not be fully surveyed and for which the *masheha*, the Mudirs and the District Officers should prepare a periodical list of holdings, with a rough description of each or (if necessary) an exact measurement without setting up permanent boundary marks. This will serve the useful purpose of (1) bringing

the administrative officers into touch with the rural population on the spot, (2) preventing the establishment of non-agriculturists on the land of the native tribes, (3) facilitating the settlement of village disputes. It may be found necessary to relieve the administrative officers of some of their judicial functions, which in Zanzibar detain them more constantly in their offices than in any other dependency which I have visited. As the *masheha* become more literate and the mudirs more skilled, the supervision of the District Officers over these village records will become less detailed.

10. It will be well also to embody and record in a statement of fact, for each village, the customary land-tenures there prevailing. I understand that the rule of succession under the Muhammadan Law is not followed, and that Kiambo and other African tenures on the basis of the family or group are recognised by the people. Hardship will be caused by the disturbances of these customs, but the improvement of communications and the spread of education and litigation are sure to bring their legality into question in the near future. Their legal recognition would contribute to the happiness of the village tribes.

Customary  
tenures.

The extent to which such customary rights prevail among the native tribes can only be ascertained by local enquiry. An experienced officer would be able to investigate the question in both islands in three or four months. Custom is perhaps weakening in semi-urban centres such as Makunduchi, and it is possible that as a consequence of the inquiry Government will decide to let it perish, and to see the Muhammadan Law, with its system of subdivision on inheritance, take its place. There is, however, much to be said for preserving native custom in native communities, and in particular for avoiding the minute partition of land.

Co-operative organisation in the villages will in itself bring in issue the legality of the customary tenures, since any form of financial or commercial dealings with an agriculturist, even though not based on a mortgage, depends on his having a stable position in the community.

11. There should be prepared for the benefit of all who are interested in economic questions and the condition of the people in Zanzibar, an annual return of land sold and mortgaged, with area and price. The transfers can with advantage be analysed to show the gain or loss of the agricultural classes. Chattel mortgages should also be shown, and the total area remaining under (1) land mortgage, (2) chattel mortgage at the end of each year. This information will be available from the Register of Documents. Returns of agricultural production, showing the acreage under each kind of productive tree, and as the process becomes more familiar to the cultivators, the area under ground crops, can be collected under the Agricultural Returns Decree, which is ineffective so long as the Agricultural Officers, for lack of a survey and record of title, do not know whom to address. Estimates of approaching or past crops will become more accurate, and a periodical enumeration of livestock, a statement of rents and a computation, for statistical purposes, of wages actually paid, can gradually be achieved. The statistical office in Kenya will be in a position to total and tabulate any figures which exceed the capacity of the local staff.

Annual  
Returns.

(Signed) C. F. STRICKLAND.

15th May, 1931.

ZANZIBAR PROTECTORATE.

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Report on the Indebtedness of  
the Agricultural Classes, 1933.

By C. A. Bartlett and J. S. Last.

*The Government does not necessarily accept the views and  
recommendations contained in this Report which is published for  
general information.*

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ZANZIBAR PROTECTORATE.

INDEBTEDNESS OF THE AGRICULTURAL CLASSES, 1933.

CONTENTS.

(Paragraph numbers are given in brackets)

PART I.		PAGE.
SECTION		
I	INTRODUCTION (1-4) ... ..	1
II	ECONOMIC CONDITIONS (5-7) ... ..	2
III	RURAL FINANCE (8-11) ... ..	3
IV	AGRICULTURAL INDEBTEDNESS (12-24) ... .. Nature and volume (12-13); Table; Distribution (14); Causes (15); Security (16); Interest (17-18); Table; Opportunities for invest- ment (19); Recovery of debts by legal process (20); Fictitious sales (21-23); Credit practices (24).	4
V	EFFECTS OF INDEBTEDNESS (25-34) ... .. General effects (26); Absentee proprietorship (27); The townward movement (28); Agricultural output (29); Security of tenure (30); Squatters (31); Encroachment on Public and Private land (32); Effects of insecurity of tenure (33); Recommendations (34).	8
VI	REMEDIAL MEASURES (35-53) ... .. Redemption (36); Compromise (37); Funds (38); Organization (39); Rational Finance (40); Repayment (41); Safeguards (42); Use of Chattel Mortgage (43); Conciliation (44); Marketing (45); Co-operation (46); Recommendation (47); Survey and registration of titles (48); Recommendation (49); Propaganda and Public Education (50); Economic Inquiries (51); Recommendation (52); Boards and Committees (53).	10
VII	PREVENTION (54-55) ... .. Corrective Legislation (55).	14
VIII	RECONSTRUCTION (56) ... ..	15
APPENDIX A	REDEMPTION PLAN ... ..	16
APPENDIX B	LEGISLATION RECOMMENDATIONS ... ..	19

## PART I.

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### INTRODUCTION.

1. For many years past the indebtedness of the agricultural classes has been the subject of reference in official reports and in the press, and of representations by the agriculturists themselves.

2. Hitherto, inquiries undertaken into indebtedness have been incidental to the consideration of more comprehensive issues, and such action as has been taken has been on that basis. The object of the present inquiry is to accord the subject the specific attention that its importance demands, to investigate causes, nature and extent, and to submit recommendations for remedial measures.

3. In order to keep the report as concise as possible, it is proposed to omit detailed reference to matters adequately dealt with in previous reports, and to submit recommendations in general outline only, pending decisions on the main points of policy.

4. The scope of the inquiry has been limited by certain factors, viz., urgency, on account of which it being undertaken during a clove harvest was unavoidable; lack of helpful initial data, and the basis which a Land Registry would have provided; the reluctance of certain sections of the population to disclose their circumstances; and the necessity for simplicity in the form of questionnaire. The results of the inquiry are, however, sufficient for the formation of general conclusions.

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## II. ECONOMIC CONDITIONS.

5. "Widespread debt is the outcome of bad management and incompetence, economic or social, and only better management will remedy it". (Norman Angell. *The Unseen Assassins*, p. 162.)

The present deplorable situation of the agricultural industry is mainly due to the character of the producers and their financiers, and to the inherent complications of agricultural finance. Some contributory causes are failure to meet effectively the situation created by the abolition of slavery; the townward movement; inadequate transport, banking and marketing facilities; the producers' lack of business capacity; the imposition of a legal system no doubt admirable from the point of view of the legal profession and the moneylenders but insufficiently related to the conceptions and needs of the mass of the population; subdivision and multiplicity of holdings; enhanced cost of credit due to the absence of a survey and registration of titles; virtual dependence on a single export crop having a highly variable long period return, and its finance on a system appropriate to regular uniform income; and finally, the methods adopted in evasion of controlling legislation.

6. In recent years the situation has been intensified to the verge of a crisis by inflation leading to extravagance and speculation, followed by a depression which has made it impossible for producers to pay interest or to repay loans obtained during the period of inflated values. Many of the lenders are similarly involved and would be more disposed to compromise now than they would be later, should values improve, though those in a position to do so would no doubt await that event.

7. The burden of the debt lies on the clove and coconut industries, the former carrying the greater proportion. Bare harvesting and marketing costs cannot be recovered from the current prices of cloves and copra, and as the interest cost of the debt is estimated to exceed Rs. 15 lakhs annually, there is reason for asserting that the agricultural industry of the Protectorate is bankrupt. The figure facts in this report tell a story. They are also a warning that immediate action is necessary if the economic structure of the Protectorate is to be preserved.



### III. RURAL FINANCE.

8. In this connexion the observations of various Commissions and Committees in other countries apply generally to the conditions here, and they may be studied with advantage.

"Agriculture is not merely a way of making money by raising crops; it is not merely an industry or a business; it is essentially a public function or service performed by private individuals for the care and use of the land in the national interest; and farmers in the course of their pursuit of a living, and a private profit, are the custodians of the basis of the national life. Agriculture is therefore affected with a clear and unquestionable public interest, and its status is a matter of national concern calling for deliberate and far sighted national policies, not only to conserve the natural and human resources involved in it, but to provide for the national security, promote a well rounded prosperity, and secure social and political stability." (*Businessmens' Commission on Agriculture in America*, quoted by The Indian Central Banking Enquiry Committee. p. 48).

9. Agricultural finance is generally left to profit seeking private agencies. The agriculturist requires credit for production, development and domestic purposes. His turnover is slow and his income is subject to great variation through causes beyond his control. He rarely keeps records of costs and production to indicate the profit or loss on his undertakings; and his personal and professional accounts are inextricably mingled. He is not a skilful financier and he frequently engages in commitments from which there is no possibility of extricating himself. With an utterly unbusinesslike outlook and inferior security the small proprietor is unlikely to obtain favourable terms from the class of financier who is prepared to deal with him.

#### Existing Credit Agencies.

10. For good reasons the two commercial banks do not directly finance agriculture, here. There is as yet no co-operative organization for this purpose. The Clove Growers Association provides, from funds guaranteed by Government, clove harvesting loans and crop advances. It is hoped that it will be able to extend this programme. The Post Office Savings Bank is used rarely, if at all, by the agricultural classes. The greater part of agricultural finance is left to the moneylenders, and to small shopkeepers and produce dealers who act as moneylenders, though not licensed in that capacity as required by law. In fact, it can be said that no organized credit has ever been available to the agriculturist, who has, in consequence, been forced to accept credit assistance from a variety of lenders who have imposed individual conditions to their own advantage. On the other hand the absence of satisfactory title and land laws has effectively prevented the organization of any system of long term credit adapted to the peculiarities of the clove industry.

11. In these circumstances it cannot be wondered at that agricultural finance has always been considered speculative—and speculators demand high dividends. Accordingly interest rates have always been more than the industry is capable of paying.

## IV. AGRICULTURAL INDEBTEDNESS.

### Nature and Volume.

12. The table below gives the nature and volume of agricultural indebtedness as revealed by replies to the questionnaire. Classification by Property Groups and Debt Classes is on a mathematical minimum basis which can be varied in accordance with price changes.

### Explanation.

Property Group X=Total value under Rs. 400,  
 Y=Total value from Rs. 400—4,000,  
 Z=Total value over Rs. 4,000,  
 on the valuation of Rs. 4 each mature clove tree,  
 Rs. 2 each immature clove tree,  
 Rs. 2 each mature coconut tree,  
 Re. 1 each immature coconut tree.  
 Debt Class A=Debts less than 30% of assets,  
 B=Debts 30% to 60% of assets,  
 C=Debts over 60% of assets.

### AGRICULTURAL ASSETS AND LIABILITIES IN THE ZANZIBAR PROTECTORATE.

(In lakhs of Rupees).

Group and Class	Number of Debtors	Mortgages	Fictitious Sales	Other Debts	Total Debts	Total Assets of Debtors
X A ...	259	·02	·07	·08	·18	·73
X B ...	713	·10	·34	·30	·74	1·68
X C ...	1731	·62	1·81	1·29	3·72	2·77
<b>Total X ...</b>	<b>2703</b>	<b>·74</b>	<b>2·22</b>	<b>1·67</b>	<b>4·64</b>	<b>5·18</b>
Y A ...	874	·29	·62	·96	1·87	10·72
Y B ...	742	·91	1·34	1·38	3·58	8·16
Y C ...	842	4·43	4·02	2·09	10·55	9·14
<b>Total Y ...</b>	<b>2458</b>	<b>5·63</b>	<b>5·98</b>	<b>4·38</b>	<b>16·00</b>	<b>28·02</b>
Z A ...	93	·66	·13	·71	1·51	9·83
Z B ...	61	2·37	·20	·61	3·17	7·00
Z C ...	117	10·93	1·10	1·24	13·28	12·53
<b>Total Z ...</b>	<b>271</b>	<b>13·96</b>	<b>1·43</b>	<b>2·56</b>	<b>17·96</b>	<b>29·36</b>
<b>Total A ...</b>	<b>1126</b>	<b>·97</b>	<b>·82</b>	<b>1·75</b>	<b>3·55</b>	<b>21·29</b>
<b>Total B ...</b>	<b>1516</b>	<b>3·38</b>	<b>1·87</b>	<b>2·24</b>	<b>7·49</b>	<b>16·84</b>
<b>Total C ...</b>	<b>2690</b>	<b>15·99</b>	<b>6·94</b>	<b>4·63</b>	<b>27·56</b>	<b>24·44</b>
<b>TOTAL ...</b>	<b>5432</b>	<b>20·34</b>	<b>9·63</b>	<b>8·62</b>	<b>38·60</b>	<b>62·57</b>

13. Individual indebtedness of less than Rs. 50, was not recorded. It has been estimated there are approximately 18,000 clove plantation proprietors, but the basis of this estimate is not reliable. Practically all the replies received came from this class. It may be assumed that the total indebtedness is considerably in excess of that revealed, but it is impossible to estimate the excess with any accuracy. None of the ordinary methods of estimating can be applied. The redemption of mortgages is not registered, nor is there

formal re-transfer in the case of redeemed "fictitious sales". A large proportion of unsatisfied decrees, as shown in Court records, are satisfied out of Court, by one means or another. There can be no doubt that the liabilities of the agricultural classes are steadily increasing, not so much on account of fresh borrowings, as by the accumulation and compounding of interest charges.

#### **Distribution.**

14. Serious indebtedness is almost entirely confined to proprietors of clove plantations and the larger coconut plantations. The remaining agriculturists cannot offer sufficiently attractive security for credit of more than a few rupees. They are, accordingly, obliged to be economical. The extent of their purchases and the amount of their produce for sale offers little scope for the combined shopkeeper-produce dealer-moneylender, who has so far restricted his attention almost exclusively to the clove and coconut areas. There are, however, instances of town shopkeepers persuading producers, of this class, to accept unnecessary loans in order to acquire, subsequently, their produce at a discount, or to control the marketing thereof.

#### **Causes.**

15. The main causes of indebtedness have been referred to in paragraphs 5 and 6. The reasons given by the encumbered indicate domestic and social requirements and the purchase of land, and in the case of larger proprietors, house property, as the origin of most debt. The desire to figure as substantial landowners leads all grades of proprietors into economic indiscretion. They sacrifice the substance for the shadow by encumbering free property in order to acquire more property, which is also encumbered in the process. Total loss is a common result. Their genuine attachment to the land is driving them from it. The proportion of debt incurred for development is negligible.

Small cash advances, crop advances, and shop debts are generally unsecured, the usual acknowledgment being a signature or thumb print in the lender's book, to an entry usually written in Gujarati (which even literate borrowers cannot understand). Receipts are seldom given for repayments. Those that are given are rarely in the form required by law. In many cases title deeds are deposited by the borrower with the lender, whether or not a fresh deed is executed.

Especially in the more outlying areas, the law relating to the registration of documents is ignored, and particularly where the advantages of registration are not considered to be commensurate with the expense and inconvenience involved.

#### **Security.**

16. When it becomes impossible for the borrower to repay all or part of the debt or to contribute an amount as interest, it is usual for the debt to be secured on the trees and land of the borrower, by means of a mortgage, or in more recent years, in certain localities, a "fictitious sale".

#### **Interest.**

17. The majority of those who replied to the questionnaire were able to state the interest due on genuine mortgage loans and pronotes, in the terms of an annual percentage of the sum acknowledged. The true interest is clearly indicated only in the relatively few straightforward original transactions free from any of the following practices, which are to be traced in a large proportion of cases, and in practically all instances of fictitious sales:

- Premium on unsecured credit (e.g., pronote and small cash loans, etc.).
- Premium on loan on mortgage, pronote or fictitious sale, for cash, or for securing unsecured debt.
- Premium on value of plantation sold under mortgage security.
- Deduction from loan of first instalment of interest and of fictitious expenses (e.g., legal, registration, and for the go-between).
- Compounding of unpaid interest, either in running account or by the execution of a new deed, and the repetition of the above processes in the new transaction.
- Discount on, and delay in and sometimes failure to credit, produce handed over as a set-off.
- Seizure of movable property sold on credit (secured or unsecured), after part payment has been made.
- General manipulation of the account to the disadvantage of the borrower.
- Subsequent insertion of amounts over a signature previously obtained.

18. The cost of credit is related to the soundness of the security and the ease with which it may be realized. The character of the borrower is an important factor in assessing security. In the case of the small producers, here, their character operates as a factor in assessing, not so much the value of the security, as the maximum profit to be derived from the transaction by means of interest, or otherwise; the other main factor being an alternative source of credit to the borrower. An analysis of the interest rates charged in 4,352 cases is given in the following table:—

#### Rates of Interest.

		Under 10%	10-15 %	Over 15%	Over 25%	Over 50%	Over 75%	Over 100%
Zanzibar	...	10	286	86	36	2	...	6
Pemba	...	37	165	211	1556	355	678	924

Rates over 25% are mainly conversions of premium on loan to an annual interest rate.

19. Tree bearing land and house property afford almost the only opportunities for the investment of local capital. In the absence of alternative scope, money is, normally, available for speculative investment at correspondingly high interest rates. A considerable amount of speculation in cloves is undertaken by persons having no direct connexion with agriculture or commerce. There is scope for facilities for investment, on terms and conditions more attractive than those offered by the Post Office Savings Bank.

#### Legal Process.

20. The effect of legal expenses on the cost of credit is reflected to some extent in interest rates. Some debtors appear to regard the Courts as the normal medium for the settlement of their accounts. It offers the advantage of a declaration of the exact liability, up to a point, and postponement of payment at small extra cost. The economic and moral effects of this attitude are undesirable, and it might be advantageous to make the initial Court fee higher, and subsequent fees, lower, in order to discourage unnecessary litigation, and to facilitate execution when judgment is obtained. It is not possible to ascertain from Court records the proportion of claims satisfied out of Court, at various stages of the legal process, by actual payment or by the execution of a fresh document.

#### Fictitious Sales.

21. For a number of years past, throughout Pemba, and in a few isolated areas in Zanzibar, money has been raised by means of "fictitious sales". As the form used is that of the "Bei Kataa", or absolute sale, the condition to return the property, on repayment being received, being, as a general rule, purely oral, the term "fictitious" seems appropriate. (In the schedules to this report "Bei Kataa" is used to distinguish this transaction from the "Bei Khiyar", or true mortgage of the alternative forms of which, recognized by law, the "English Mortgage" predominates). In Pemba the amount involved in fictitious sales is Rs. 9,50,784, representing 40% of the revealed indebtedness of that island; while the corresponding figure for the whole Protectorate is Rs. 9,63,421, being 25% of the indebtedness. Legally the transaction is a sale; no recourse to the Courts is necessary in the event of default; and the lender avoids payment of the fee for a moneylender's licence. If he is unscrupulous, and sets his trap well, he can acquire considerable property at a fraction of its value. He can practise usury with impunity, and without the publicity which may be undesirable for professional or religious reasons.

22. The consideration may be shop goods or foodstuffs, cash, composition of debts, or the means to buy a property; frequently a combination of these introducing confusion advantageous to the creditor. The lender agrees, usually orally, to re-sell the property to the debtor at the deed price, within a fixed period, generally one year or less. The lender benefits, at this stage, by a premium on loan rarely less than the equivalent of 50% per annum and frequently exceeding 100% per annum. In most instances, until recently, the debtors have remained in occupation of their properties, after the period prescribed for re-sale, subject to the payment of "rent" or "interest", as it is variously described.

This is not, usually, a fixed sum, but amounts to all that can be obtained from the proceeds of each crop, which, as a rule, has to be disposed of through the lender. If treated as interest the rate is so adjusted (and if possible the calculation involved with other accounts for goods sold at a premium, and produce brought at a discount), that the principal is never reduced but may be increased year after year, by compounding interest. The impossibility of paying full dues from the proceeds of the short crops that, in clove production, occur in approximately two years in three, facilitates the operation of this process of preventing the debt from being cleared off. As the debtor becomes increasingly embarrassed more of his property is involved in fictitious sales, until it has all passed to the control of the creditor.

23. Recently many borrowers have been unable to comply with their creditors' demands, and as these fictitious sale deeds frequently form the security for the creditors' working capital, one result of the depression has been the increased application of the abuses of the system in order that the creditors may, in turn, meet the demands of their own creditors. The administration of the estates of deceased creditors discloses that whatever may have been their own intentions, their heirs have no compunction in exercising full legal rights of possession, when it suits their policy to do so.

#### **Credit Practices.**

24. Most agricultural credit practices fall under one of the following heads:
- a. Simple advance of cash or goods without documentary acknowledgment, or fixed payment period. (Usually confined to relations or friends).
  - b. Simple advance of cash or goods with written acknowledgment.
  - c. Simple advance of cash or goods with written acknowledgment and premium on loan.
  - d. As in "c" with fixed repayment period.
  - e. Loan on security of crops, purchased by the lender at a discount. Acknowledgment varies.
  - f. Lease of plantation crops for a definite period or until an agreed quantity of produce has been gathered by the lender. (Registration requirements are not always observed).
  - g. Fictitious sale.
  - h. Chattel Mortgage—since 1931 only.
  - i. Mortgage (English form).

Almost all the moneylenders, licensed and unlicensed, belong to one or other of the Indian communities, but it is worthy of note that Arab moneylenders, though comparatively few in number, have had attributed to them some of the harshest and most unconscionable instances of usury revealed by the inquiry.

## Y. EFFECTS OF INDEBTEDNESS.

25. The nature and volume of disclosed debt is given in the table following paragraph 12. It is not possible to estimate the undoubtedly considerable amount of undisclosed debt, nor the extent of agricultural properties alienated to non-agriculturists in past years, and still in their possession. Reliable information on these points will not be available until there is a survey and registration of titles.

There can be no doubt that encumbrance and alienation has steadily increased in volume, and more rapidly within the past three years, owing to the economic conditions which have prevailed.

### General Effects.

26. Indebtedness has direct and contributory effects on a number of circumstances that adversely affect the welfare of the agriculturists and, ultimately, the population as a whole. It introduces an atmosphere of insecurity inimical to efficient maintenance and development, maximum productivity and preparation of first grade produce; it imposes a lower standard of living, and it tends to destroy any latent enterprise and self reliance that the agriculturists may possess.

Indebtedness leads to conditions of absenteeism and multiplicity of holdings, deterioration of the properties, their alienation to non-agricultural classes, and the disappearance of the agricultural tradition that has built up the industry. It encourages the townward movement, and is transforming the landowning classes into wage earners and unemployed, dependent on the charity of relations who can often ill afford it.

While the policy of some moneylenders is to dispose of, quickly and profitably, any properties that pass to their possession, that of others is to retain and operate the larger and more productive plantations, and economic groups of small properties. These may be maintained in good condition, and the holders may, in a limited sense, become agriculturists.

### Absentee Proprietors.

27. Absentee proprietors may be grouped in three classes, the moneylender-agriculturists, referred to above, whose primary occupation necessitates residence in town; agriculturists who are attracted to the town by its superior amenities, or who seek to augment their incomes by means of secondary occupations necessitating residence away from their plantations; and the owners of widely distributed properties who make their residence on one of them or in town. The application of the Muhammadan Law of Inheritance makes for multiplicity of holdings, and, thence, for absenteeism.

### The Townward Movement.

28. The townward movement is largely responsible for absenteeism. The movement probably originated in the desire to establish an imposing capital and stronghold. It was encouraged by Seyyid Bargash's demands for frequent audiences of leading Arabs; checked by the necessity for residence on plantations during their rehabilitation after the cyclone of 1872, but revived by the abolition of slavery and by outbreaks of dacoity which occurred until quite recent years.

With the disappearance of the social amenities of country life occurred a simultaneous and continuous improvement in urban conditions. Public health and educational activities were practically confined to the town. Electric light, water supply and sanitation were provided, and the shops and the cinemas, and the increased opportunity for freer social intercourse have enhanced the lure of the town. In recent years efforts have been made to improve conditions in the rural areas, but those who have become accustomed to town life will not easily be persuaded to return to the land. The younger generation of potential agriculturists, reared and educated in the town, have become definitely urbanized and show a clear preference for clerical employment, though perhaps not averse from retaining the status of landowner if it entails no more than leasing the crops, or, at most, occasional brief visits to the property—conditions not conducive to efficient operation.

### Agricultural Output.

29. It is in the best interests of the Protectorate to maintain output of all classes of agricultural produce in order to preserve purchasing power and to provide full productive

employment for the agricultural classes. Output is, however, restricted by the conditions referred to in the preceding paragraphs of this section and by other circumstances which tend to limit the cultivation of cultivable land, which, though not arising directly out of indebtedness, require to be considered in this connexion if the question is to be fully appreciated.

#### **Security of Tenure.**

30. Security of tenure is a condition precedent to consistent output. Without it, no productive trees will be planted, and ground crops, if at all, only in an uneconomic manner.

#### **"Squatters".**

31. The more direct effects of indebtedness on production have already been referred to. Alienation of property may lead to reduction of the area of cultivated land by the eviction of squatters (i.e., here, those who cultivate ground crops on other persons' property, whether or not living on those properties). Absenteeism tends to eliminate the squatters, since absentee landlords do not wish to incur the risk of disputes as to ownership, and other matters; and the squatters, on their part, may feel a lack of confidence in dealing with even well-disposed overseers, whose actions may in any event be repudiated by the owners. It may be mentioned that squatters, though sometimes a nuisance, save proprietors considerable sums in cultivation costs.

#### **Encroachment on Public and Private Land.**

32. Encroachment is another source of the atmosphere of insecurity of tenure. This can only be checked by a survey of properties. Adjustment by legal process may involve an injured party in insolvency, even if his claim is substantiated. When public or communal land is involved, no action is taken either by the public or by Government. The result would appear to be a reduction in cultivation in considerable areas of cultivable land. There seems little doubt that many claims to open land, adjacent to plantations, are entirely fantastic and would be strongly contested were it not that the matter seems, hitherto, to have been regarded as nobody's business, or, possibly, as possessing political aspects rendering action inexpedient.

#### **Effects of Insecurity of Tenure.**

33. Insecurity of tenure, or the absence of defined cultivation rights, in the use of public or private land, leads to a serious reduction in the cultivated area, decline in production in the cultivated area, deterioration of properties, increase in the liability of damage by fire and by the depredations of vermin\*, decline in standards of living, depopulation of the countryside, unemployment, increasing dependence on imported foodstuffs, and malnutrition. Indebtedness is largely, but not entirely responsible for the vicious circle described by these conditions. To ignore the aspect of insecurity of tenure will materially reduce the effectiveness of measures that may be taken to relieve indebtedness and to encourage and improve agricultural production.

#### **Recommendations.**

34. To cope effectively with this aspect of the problem of indebtedness it will be necessary to demarcate and render inalienable to non-natives all native, communal and public land, and to provide for security of tenure of individual cultivators of such lands; to encourage the concession of security of tenure to squatters; to provide for the survey and demarcation of all agricultural property; to furnish advances for development, protective measures and cultivation; to penalize conditions of uncultivated cultivable land, ill-maintained plantations and the production of inferior produce; and to devise a plan to assist heirs to pay estate duty and other fees, deceased's debts, and to buy shares in deceaseds' estates, without recourse to moneylenders, and to encourage the purchase by resident neighbours of properties sold by the order of Government.

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\*The most effective defence of ground crops, bananas, etc., against pig is the dry-stone wall, the erection of which is so laborious a task that it will not be undertaken if there is any risk of eviction.

## VI. REMEDIAL MEASURES.

35. "It must clearly be recognized that the worst policy towards debt is to ignore it and do nothing." (*Royal Commission on Agriculture in India*, p. 73.)

There is ample justification for undertaking this enquiry, but it will have caused nothing but harm unless adequate remedial measures are adopted. No arguments will satisfy the public that Government is unable to intervene.

To deal exhaustively with all possible remedial measures would render this report cumbersome. The time to discuss details will be when the main lines of policy have been decided and the Government is prepared to take action. A problem of this magnitude can be dealt with effectively only by means of a clear and consistent plan of reconstruction and development.

The measures of assistance can be classed as Direct, Preventive, and Contributory.

### Redemption.

36. "Credit at reasonable rates for current needs will do the agriculturist no great good so long as he is carrying the crushing burden of indebtedness." (Hough, *The Co-operative Movement in India*, 1932, p. 260.)

It will have been noted that a very considerable number of agricultural holdings are already alienated to non-agricultural classes and in outlining a scheme for direct assistance it is assumed that such property will eventually return to the original holders.

### Compromise.

37. It is quite obvious that there is no possible chance of redeeming the debt in full, and it is equally apparent that those who have financed the industry have little, if any, chance of recovering the book value of their investments, even if property values improve, which is entirely dependent upon a return to more normal prices for cloves and copra. In these circumstances there are reasonable grounds for suggesting that the time is opportune to compromise the amount of the debt. Needless to say the borrower would welcome the proposal, and the lender being in an equally precarious position, may not be averse from an adjustment of his claim in cash, or, if he wishes to maintain an investment, in interest bearing bonds (which would be of advantage in retaining funds within the country). If it is found impossible to compromise the debt there is little chance of affording any direct assistance.

The first essential is to reduce the debt to such proportions that it becomes economically manageable. It is appreciated, in making this statement, that there are many so deeply involved that no scheme could assist them.

### Funds.

38. It is, of course, necessary with this form of direct assistance to have funds to redeem the compromised debts and, accordingly, it is assumed these will be available if any action is taken. Having regard to the growing body of public opinion on the matter, consideration would no doubt be given, in this connexion, to the possibility of using as principal or security the £200,000 loan to the British Government.

### Organization.

39. An organization will have to be established to negotiate, or manage, the debt compromises, and it will be necessary to create a Conciliation Court, with definite powers. This is referred to in more detail later.

### Rational Finance.

40. Two leading causes of the loss of their property by agriculturists under the existing system of finance, are that adequate consideration is never given to the question of redemption of borrowings, and that the fixed interest charges levied are rarely related to the actual annual income to be derived from the property. Cloves provide one of the most variable long period crops in agricultural production. Inevitably, seasons occur when borrowers cannot meet their obligations; they become more heavily involved and finally lose their property.



The only rational system of financing clove production, or for providing agricultural credit, is a long term one in which payment of borrowings, and interest, is based on actual income. For obvious reasons this would not appeal to the moneylender, but it must be the basis of any scheme of assistance which may be organized by Government. It will be impracticable to estimate or check production on each plantation, and the best course is to bind the borrower to market his produce, and make repayments of loans, through the Clove Growers Association.

#### **Repayment.**

41. Subject to the provision of safeguards by means of legislation, investigation, and agreement, a sound and practical scheme could be based on the payment of interest and redemption charges from an agreed fixed proportion of the proceeds of each crop. The proportion would be based on the repayment capacity of the borrower as such number of complete tenths of the value of each crop as will amortize the loan within the shortest possible time, without involving hardship. In order to retain the maximum productive effort not more than half the crop should, normally, be appropriated.

In its details the scheme is susceptible of considerable variation. The final form would depend to some extent on the nature of the legislation to be introduced. An outline of a possible scheme is provided in Appendix A.

#### **Safeguards.**

42. For the investigation and safeguarding of security it may be necessary to make use of District Councils or to form special area committees or mutual guarantee associations, or both, to provide collective security (not co-operative). A prerequisite to the issue of a loan will be the demarcation and agreement of boundaries.

#### **Use of Chattel Mortgage.**

43. The basis of the agreement would be a long term combined land and chattel mortgage, the issue of which would be restricted to the Clove Growers Association, since only a responsible body controlled by Government, could be guaranteed to observe the principles in support of which this privilege would be granted, viz—operation in the producers' interests (not for private profit); restriction of credit to necessary purposes; reasonable interest charges; clear and regular accounts and receipts; absence of sharp practice; realization of security only as a last resource and fair prices for produce purchased (or received to discharge annual redemption).

(In this connexion it may be observed that creditors are using the recently introduced chattel mortgages, limited to one year, to secure interest payments, thus restricting the producer's freedom of action in disposing of his produce. Creditors may induce the annual renewal of such chattel mortgages).

#### **Conciliation.**

44. Reference has already been made to the necessity for appointing a Conciliation Court. This Court should have power to reopen transactions in the event of failure of agreement to a reasonable settlement for redemption. Paragraph 16 of the Report of the Committee on Indebtedness in the Punjab (1932), is reproduced in this connexion—

"In recommending the introduction of a simplified procedure for dealing with petty insolvency cases we feel that a widespread resort to its provisions might possibly lead to some embitterment of feeling between lenders and debtors which might be avoided if the parties could be brought together in an atmosphere of conciliation. A lender has little to gain from pursuing an irrecoverable debt or from suing for a sum greater than he is likely to realize; many lenders would, we believe, willingly accept in lieu of the whole claim a portion of the sum owed if promptly paid down, and the necessity for insolvency proceedings might be avoided if a machinery existed for effecting mutual conciliation."

#### **Marketing.**

45. The remaining essential measure of direct assistance is the provision of marketing facilities organized for the benefit of the producer.

"There is very little room for improvement in the standard of living unless means are taken to bring to the producer a greater share of the value of the crops than the harvest price he now commands." (*Gengal Banking Inquiry Committee*, Vol. I, p. 29).

"The claims of the village moneylender commonly inhibit the cultivator's freedom of action in disposing of his crop." (Hough, p. 155).

"Generally speaking the cultivator who is in debt or who has taken a crop advance is unable to obtain a reasonable profit for his crop; the profits are swallowed up by the creditors." (*Assam Banking Committee*, Vol. I, p. 91.)

"Some official regulation of markets is recognised as a necessary preliminary to any very large scale co-operative developments." (Hough, p. 159.)

In the provision of harvesting loans, crop advances and marketing facilities, the Clove Growers Association is demonstrating its value. This will increase with the reduction of agricultural debt. To be of the fullest benefit, however, and in the general interest of the industry, the control of marketing at definite centres is essential.

As this is the subject of a Committee's inquiry, no useful purpose will be served by detailing proposals here. It will suffice to state that any system instituted should be conducted in the interests of the growers, not the dealers, and should ensure, *inter alia*:—

- (a) the entire exclusion from produce dealing of moneylenders and shopkeepers;
- (b) the prevention of barter, pledging and bonding of produce;
- (c) unwatered cash payments to growers for their produce;
- (d) the regulation of weights and measures and weighing machines;
- (e) the standardization of produce and the prevention of adulteration;
- (f) the control of dealers and brokers by licence. (The average number of licensed agricultural produce dealers is 950.)

#### **Co-operation.**

46. The growth of a sound co-operative movement is necessarily a slow process. Among the greatest obstacles to its progress are illiteracy, indebtedness and unfavourable marketing conditions. The co-operative potentiality of the producers has not yet been tested, but it may be assumed that they will prefer individual credit and responsibility to collective credit and unlimited liability. Even if present conditions could be materially alleviated by co-operation, the problems are of too urgent a nature to be left to that eventual solution, and the Government, in initiating the Clove Growers Association with a policy of direct credit facilities has already introduced a measure with which co-operation could not successfully compete. Such competition is not, in any event, desirable.

In formulating a plan of reconstruction and development the educational, social and economic value of co-operation should be utilized by its introduction, in conformity with the plan, wherever it is likely to prove successful; but the most urgent task of the Government is the rehabilitation of the clove industry and the measures to be adopted should be those which will produce the earliest results on a sound basis. Though the more ideal procedure may be to teach the producers how to conduct their business, it seems that it will be necessary to conduct it for them, for some years to come.

#### **Recommendation.**

47. The most practical and economical solution, in these circumstances, would seem to be for the Department of Co-operation not to be restricted to co-operative activities only, but to undertake any inquiries, propaganda, and other measures calculated to promote the realization of the general plan of reconstruction and development. While aiming at the eventual realization of the co-operative ideal it would work in close contact with the Clove Growers Association and the departments concerned with development and render those bodies all possible assistance. The experience to be derived by the staff from this contact would prove invaluable in later co-operative activities and the introduction of potential co-operators to an efficiently conducted Clove Growers Association would be not less valuable.

#### **Survey and Registration of Titles.**

48. The absence of a survey of properties and of registration of titles probably appreciably increases the cost of credit. It will constitute a serious hindrance to reconstruction. The subject has been fully discussed elsewhere and the arguments need not be repeated here.

**Recommendation.**

49. It is recommended that, unless there are insuperable technical objections, a simplified form of survey be undertaken of the plantation areas, and the Native Land Areas demarcated. What is needed for the plantation areas is the clearing of boundaries and the erection of permanent boundary pillars; the preparation of a diagrammatically correct plan, and the compilation of a register of titles, to contain necessary particulars. The principal requirement is identification related to "history", rather than the exact area and situation. The procedure to be adopted for the original survey, and for its subsequent maintenance, is a matter for discussion, but until this service is provided, debt redemption, Clove Growers Association and Co-operative operations, and economic inquiries will be seriously restricted in scope. Decision on this matter should be reached as soon as possible and carried into effect promptly and energetically.

**Propaganda and Public Education.**

50. Unless well conceived measures of propaganda and public education are undertaken the objects of the Government's programme will not be appreciated, and its principles are not likely to take root and be of permanent value. It will be necessary to increase and improve the facilities for printing in the vernaculars.

**Economic Inquiries.**

51. The amount of reliable information on local social and economic subjects is negligible. It seems to be assumed that these are matters of common knowledge that do not require a scientific approach. Properly organized inquiry is, however, essential, not only for efficient administration, but in order to awaken and maintain public interest in these matters.

*The Indian Central Banking Enquiry Committee* (paragraph 73).

"supports the recommendation of the Provincial Committees that a Provincial Board of Economic Enquiry should be started in each Province to collect, correlate and analyse all the economic factors influencing the agriculturist and to present the results of the enquiry in a convenient form."

i.e., as undertaken by the Punjab Board of Economic Enquiry, a non-official body consisting of officials and non-officials interested in the subject, and practically dependent on the Government for funds.

**Recommendation.**

52. If the recommendations for the extension of the functions of the Department of Co-operation be accepted it would appear preferable for that department to undertake the work of economic inquiry rather than for a separate semi-official board to be formed for the purpose. This view is based on considerations of, briefly, expense, control, availability of information, overlapping and personnel.

**Boards and Committees.**

53. The Government having defined its policy, the plan of reconstruction and development should be operated by one small Board, each member making a definite and active contribution to its operations. A multiplicity of boards, to which members are appointed mainly on ex-officio considerations, or, alternatively, constant reference to Government of administrative details, will not make for efficiency, economy or continuity.

## VII. PREVENTION.

54. It will be futile to attempt to relieve the present situation unless effective steps are taken to prevent its recurrence.

No legislation for the control of moneylending will be proof against collusion and evasion so long as there exist the inclination and opportunity for borrowing and the means and attraction for lending. The solution lies in the elimination of these conditions. Security is the basis of credit, and if the security be isolated, credit can be controlled. This entails the introduction of appropriate legislation. To secure the desired effect it will have to be drastic, but it should be clearly understood that the object is not to restrict the legitimate undertakings of one class in order to give an undue advantage to another; it is, in the interests of the Protectorate as a whole, to eradicate the detrimental elements in the machinery and finance of agricultural production.

### Corrective Legislation.

55. It may be anticipated that the introduction of corrective legislation will meet with strong opposition by the vested interests and the agencies through which they work. It will be contended that they are only exercising their legal rights, and that if the producers are so foolish as to become indebted they must bear the consequences and learn by experience.

The Government, however, cannot evade its responsibilities in this matter. The prosperity of the Protectorate depends entirely upon agriculture, which must, therefore, be conducted on an economic basis. The present system of agricultural finance is not economic, and must be abolished in favour of one that is.

Without a survey of properties and registration of titles, it is not possible to measure accurately the effects of a century of moneylending, but it is probable that not less than half the agricultural property of these islands has passed to the hands of the moneylending classes and at least half the remainder is encumbered to them, most of it heavily. It is claimed, on behalf of the moneylenders, that they perform a useful, even essential, function in financing agriculture. The majority have, in fact, used agriculture as a milch cow, which they have now milked almost dry.

The abuse of legal rights has led to a deplorable situation, and those rights must be drastically curtailed. In business capacity the creditors are immeasurably superior to the debtors. They know at least as well as the debtors whether conditions are possible of fulfilment, and, though the debtors are largely responsible, it is illogical to place the whole onus on them.

In any event, it is not a practical consideration for the Government to acquiesce in the continuance of the present system until the proprietors have learned by experience the advantages of sound finance, as, when that stage is reached, they will no longer be proprietors. The majority are not sufficiently advanced to be exposed with impunity to uncontrolled contact with unscrupulous moneylenders and others operating in the same manner. They need education, and, during the period of education, encumbrance and alienation of their property must be subject to control. In its determination to carry through its plan of reconstruction the Government must accept no compromise.

“Legal technicalities must be subordinated to economic considerations” (*Royal Commission on Agriculture in India*, p. 367.)

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### VIII. RECONSTRUCTION.

56. The plan of reconstruction and development should comprise measures to eradicate all practices detrimental to agricultural production and the welfare of the agricultural classes; relief and prevention of relapse; provision of necessary credit; organization and control of marketing; control of moneylenders, shopkeepers and produce dealers; (the separation of their functions and insistence on approved accounts); improvement of security by survey and registration of titles; restriction of encumbrance and alienation of agricultural property and "native lands"; encouragement of the savings and investment habit; investigation of alternative occupations; continuous economic inquiry; education, propaganda and development.

To carry through such a plan successfully and to effect any permanent improvement in the condition of the majority of the population will necessitate adherence to a definite and consistent policy, the enthusiastic support of the entire Government service and the co-operation of the public. In Government offices routine must be subordinated to public service and sustained co-ordinated constructive activity. With the public the apathetic must be roused and the opposition dispelled by the conviction of the Government's determination to attain its object.

The difficulty of the task before Government will not excuse evasion of its responsibilities, nor will urgency justify inadequacy.

C. A. BARTLETT,

J. S. LAST.

Zanzibar, 28rd December. 1933.

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## APPENDIX A.

## PLAN FOR REDEMPTION OF DEBTS.

(Drafted, for convenience, on the lines of an announcement).

## I. Explanatory.

The Government is prepared to consider applications from genuine agriculturists for assistance in the payment of their debts under the following conditions:

2. The Government is not prepared to assume the liabilities and the management of estates in order to relieve their proprietors of their own responsibilities; nor to undertake to provide a fixed income on which the proprietors may retire from active participation in agricultural production.

3. It is the aim of the Government to assist, wherever possible, those genuine agriculturists who undertake to make special efforts to help themselves. This will involve continuous personal attention to cultivation, production and development, with the view to making the fullest possible economic use of the property. Every economy must be effected in professional and personal expenditure and it will be necessary, in many cases, to adjust the standard and mode of living to altered circumstances. Government assistance will be subject to the continual observance of these general conditions as well as the specific conditions applied in each case.

4. The Government's proposals are actuated by the necessity for the rehabilitation of agriculture in the interests of the population of the whole Protectorate, not in the interests of individual proprietors.

5. Prior consideration will be given to energetic and reliable resident proprietors, having satisfactory security, who have incurred a redeemable debt the charge of which constitutes an uneconomic burden on the property encumbered.

6. Assistance cannot be extended to proprietors who are not prepared to make any personal effort at improvement nor to those whose estates are encumbered beyond redemption. In such cases it is preferable, however distasteful, to abandon the property to the moneylender or other creditors. In many instances it will probably be possible to effect some compromise of the indebtedness.

7. *The Applicant* must be of good character, dependent for his livelihood on agricultural production to which he devotes his active personal attention at all times either by cultivation, or in the case of the larger estates, by personal supervision.

In the absence of special circumstances absentee proprietors, and those who habitually lease their crops, will not be eligible for the grant of assistance.

8. *The Security* shall be proved to be satisfactory by the production of all title deeds and by the evidence of reliable persons possessing personal knowledge of the applicant and his property. The boundaries of the property shall be clearly demarcated, and the property shall be not less than twice the value of the total indebtedness of the applicant.

9. *Repayment Capacity* of the applicant will be a deciding factor in the grant of assistance. It will be based on the proportion borne by the debt (to be redeemed) to the estimated average annual income, minus the minimum average annual expenditure, professional and personal, of the applicant. Assistance will be granted only to those applicants whose average income is sufficient to meet interest and redemption charges, and necessary personal and professional expenditure, during the period of redemption, which will be as short as is possible in the circumstances and will in no event exceed twenty-five years.

10. *Identification of Property.* It is essential that every property in respect of which assistance is given shall be clearly defined by demarcation of boundaries and the erection of permanent boundary pillars. To facilitate identification it will be necessary to execute a simple form of survey to indicate the position of the property in relation to adjoining properties. Evidence of ownership and agreement of boundaries will have to be obtained.

11. Such part of the cost of these operations as is met from the assistance fund will have to be added to the cost of the loans. Therefore it is in the borrowers' interest for as much as possible of this work to be undertaken by themselves and by voluntary local assistance.

12. To keep the charges low it is proposed that proprietors should clear and straighten by agreement their boundaries and erect temporary pillars. When a sufficient number of plantations in a given locality are ready, a survey will be undertaken, and permanent pillars erected, when boundaries have been agreed to. Voluntary or compulsory straightening of boundaries will be resorted to in order to reduce to a minimum the number of pillars required. A diagram will be prepared to indicate the ownership and relative position of each property. The labour and cost of this operation will be enhanced unless all proprietors in the locality agree to its application at the same time. Legislation will be introduced to encourage this or make it compulsory. To facilitate the operation it will be necessary to make use of District Councils, Special Area Committees or mutual guarantee associations, whichever body is likely to prove more suitable.

## II. Procedure.

1. Applications for loans will be received at the District Offices. The District Officer will examine each application and satisfy himself in regard to—

- a. Character of applicant.
- b. Satisfactory title to property.
- c. Total liabilities.
- d. The cash amount required to discharge all liabilities and free the property from all encumbrances.

2. Applicant will then be instructed to demarcate property boundaries in agreement with his neighbours and erect temporary boundary pillars. When this is completed to the satisfaction of the District Officer, survey will be made and provisional certificate of title granted.

3. Applications with survey title will then be forwarded by the District Officer to the Land Board.

4. The Land Board will give a final decision and forward it, together with the details and the terms and conditions on which the loan will be granted, to the District Officer for explanation to the applicant.

5. Approved applicants will be scheduled, with details of property, etc., and gazetted. Similar notices will be posted at each District Office and at Mudirs' offices, and on the property of the applicant. Notice will be to effect that the Land Board propose to grant indefeasible title and grant loan, and call for objections to be lodged within three months of date of notice.

6. Objections must be filed with District Offices or Land Board. If no objections are forthcoming within the prescribed period the Land Board will proceed to execute the requisite documents, register title and applicant, and pay to creditors sums due to them in return for complete discharges and necessary deeds.

7. *Conciliation.* In the event of a creditor refusing to accept the sum offered by the debtor for complete discharge the debtor may apply for the case to be considered by the Conciliation Court which will have power to reopen the whole case and give an award.

8. If accepted by the creditor, debtor and Land Board, procedure will be to schedule etc., as above.

9. The award is not binding in any way on the Land Board but it is binding on creditor and debtor, subject to appeal to the High Court within one month. Acceptance by either party is irrevocable.

10. If a creditor does not accept an award the Conciliation Court may certify it with the result of excluding the claim until all accepted awards are satisfied.

11. If no appeal is filed within one month and the Land Board approves a loan on the terms of the Conciliation Court's award the property to be redeemed will be scheduled as above.

12. If a creditor who has not appealed refuses to accept the amount awarded the Land Board will retain the money for one year at the creditor's disposal, without interest, after which it will finally revert to the Board; the creditor having no further claim.

13. If the Board declines to advance a loan on the terms of the award the creditor and debtor shall be notified if possible (but the Board is not in any way liable for failure to do so).

14. *Fictitious Sales.* The Conciliation Court shall have power to decide in any case of Rs. 1,500 or less, on approved scale of values, whether the sale is true or fictitious. In other cases the High Court will decide on suits filed for that purpose and will state the amount due in the event of it being fictitious, having reopened the whole transaction without special application.

### EXAMPLES OF ANNUAL PRINCIPAL AND INTEREST PAYMENTS.

Loan of Rs. 200 on 100 clove trees valued at Rs. 4 a tree, and annual income estimated at Re  $\frac{1}{2}$  a tree. Repayment period:  $\frac{30 \times \text{loan}}{\text{no. of trees}} = \text{years} = \frac{30 \times 200}{100} = 60$  years at one tenth of income = 12 years at one half of income; i.e. Rs. 25 average annual payment.

TABLE A.				TABLE B.				
Based on fixed payment of Rs. 25 per annum.				Based on an average payment of Rs. 25 per annum, varied by crop variation factor.				
Principal Outstg.	PAYMENTS		YEAR	C. V. F.	V.	Principal Outstg.	PAYMENTS	
	Principal	Interest					Principal	Interest
1	2	3	4	5	6	7	8	9
200	15.	10	1	51	23	200	13	10
185	15.75	9.25	2	30	13	187	3.65	9.35
169.25	16.45	8.46	3	82	37	183.35	27.83	9.17
152.71	17.36	7.64	4	26	12	155.52	4.22	7.78
135.35	18.23	6.77	5	55	25	151.30	17.44	7.56
117.12	19.14	5.86	6	27	12	133.86	5.31	6.69
97.98	20.10	4.90	7	99	45	128.55	38.57	6.43
77.88	21.11	3.89	8	31	14	89.98	9.50	4.50
56.77	22.16	2.84	9	76	34	80.48	29.98	4.02
34.61	23.27	1.73	10	61	27	50.50	24.47	2.53
11.34	11.34	.57	11	74	33	26.01	24.71	1.30
200	13	12	1	51	23	200	11	12
187	13.78	11.22	2	30	13	189	1.66	11.34
173.22	14.61	10.39	3	82	37	187.34	25.76	11.24
158.61	15.48	9.52	4	26	12	161.58	2.31	9.69
143.13	16.41	8.59	5	55	25	159.27	15.44	9.56
126.72	17.40	7.60	6	27	12	143.83	3.37	8.63
109.32	18.44	6.56	7	99	45	140.46	36.57	8.43
90.88	19.55	5.45	8	31	14	103.89	7.77	6.23
71.33	20.72	4.28	9	76	34	96.12	28.23	5.77
50.61	21.96	3.04	10	61	27	67.89	22.93	4.07
28.65	23.28	1.72	11	74	33	44.96	30.30	2.70
5.37	5.37	.32	12	69	31	14.66	14.66	.88
200	11	14	1	51	23	200	9	14
189	11.77	13.23	2	30	13	191	...	13.37
177.23	12.59	12.41	3	82	37	191.37	23.60	13.40
164.64	13.48	11.52	4	26	12	167.77	.26	11.74
151.16	14.42	10.58	5	55	25	167.51	13.27	11.73
136.74	15.43	9.57	6	27	12	154.24	1.20	10.80
121.31	16.51	8.49	7	99	45	153.04	34.29	10.71
104.80	17.66	7.34	8	31	14	118.75	5.69	8.31
87.14	18.90	6.10	9	76	34	113.06	26.09	7.91
68.24	20.22	4.78	10	61	27	86.97	20.91	6.99
48.02	21.64	3.36	11	74	33	66.06	28.38	4.62
26.38	23.15	1.85	12	69	31	37.68	28.36	2.64
3.23	3.23	.23	13	22	10	9.32	9.32	.65

Col. 5: C.V.F.=Crop variation factor, from clove exports statistics. Col. 6: V=annual average of Rs. 25 varied proportionately to C.V.F.



## APPENDIX B.

## RECOMMENDATIONS IN REGARD TO LEGISLATION.

1. It will be necessary to provide security of title by survey and registration of titles, (paragraph 49); to prevent further alienation of agricultural land to non-agriculturists, and of native lands to non-indigenous persons, (34); to redeem as much as possible of the existing debt, (36); to furnish funds, on reasonable terms, for agricultural and other necessary purposes, (56); to organize marketing in the interests of the producers, (45); and to eradicate the existing malpractices and prevent their recurrence, (54).
2. The broad lines of the requisite and alternative legislation are indicated below, no attempt being made to treat the subject exhaustively or from the technical legal aspect.
3. **Survey and Registration of Title**, on the lines proposed in paragraph 49, with provision for compulsory declaration of claims, and withholding of registration of title and deeds relating to unsurveyed property.
4. **Native Lands** to be demarcated and vested in Government in trust for indigenous natives. Claims to be subject to confirmation by Land Board.
5. **Agricultural Property** to be rendered inalienable to non-agriculturists, and not liable to attachment and sale for debt (either entirely or a reserved minimum of property).
6. **Debt Redemption** on the lines indicated in paragraphs 37 to 43, and Appendix A.
7. **Conciliation**: Paragraph 44, and sections 7 to 13 of Appendix A, refer to proposals for the establishment and operation of a Conciliation Court.
8. **Finance and Marketing** proposals as in paragraph 45. Legislation for the establishment of the Clove Growers Association and of Co-operative Societies is under consideration.
9. **Control of Credit**. To provide for the following:—To make mutually exclusive the occupations of Moneylender, Produce Dealer, and Credit Shopkeeper (i.e., Licensees), and Agriculturist (i.e., a person of Arab or African origin whose principal occupation and means of subsistence is agricultural production, not being a licensee; and such other persons as may be gazetted as such.)
10. Licences to be issued, cancelled or withheld at the discretion of the licensing officer.
11. Licensees to keep accounts in approved form and render to clients, without demand, statements and receipts in approved form.
12. No claims for goods sold and delivered to lie against an agriculturist except by a licensed credit shopkeeper, and subject to the total claims against an agriculturist by any number of credit shopkeepers not exceeding Rs. 50, in any one calendar year, or 10% of the scaled value of his property, whichever is higher.
13. Any agriculturist or licensee acquiring agricultural property in such a manner as to raise a reasonable presumption (the onus of rebuttal being on him), that he is doing so by means of credit transactions or moneylending, will, if a licensee, have his licence cancelled, and if an agriculturist, be gazetted as a non-agriculturist, in addition to any penalty to which he may be liable under any other law.
14. Not more than one type of licensed occupation shall be conducted on any one premises, and no licensee shall be interested in any way in other licensed occupations.
15. No agriculturist or lessor of agricultural property or crop to an agriculturist shall be a licensee. An agreement to purchase or sell agricultural produce otherwise than in an approved market at the time of the production thereof of the produce, shall be void (saving Clove Growers Association chattel mortgages), except in the case of produce already sold in an approved market.
16. Notwithstanding any written agreement, a Court shall examine every claim based on a moneylending transaction to ascertain whether it is fictitious or usurious, and may do so in any other suit.
17. A Court shall refer to the Government every instance in which it appears that an offence has been committed against these provisions.

18. Any offence or attempt to, commit an offence shall be punishable with fine and/or imprisonment, and in addition the whole or part of a claim may be forfeited, and the offender, if not a Zanzibar subject, may be deported on the order of the British Resident, with or without the recommendation of the Court.

19. For the purposes of this provision it shall be an offence to render false accounts, to fail to render an account due, to fail to give receipts in proper form, to fail to register a compulsorily registrable document, and to be responsible for any act or omission calculated to defeat the object of this legislation.

20. In any case in which a moneylender enters into a "contract which he knows the debtor cannot fulfil, or at best can fulfil only by suffering prolonged and severe hardship," a Court shall not enforce fulfilment beyond the debtor's current surplus of income over a reasonable expenditure for himself and his family, such amount to be determined by the Court, or beyond a period of two or three years. (Hough, p. 45; *Indian Labour Commission Report*, p. 232-3.)

21. In lieu of the grant of an order for the attachment and sale, or the possession by the mortgagee, of any agricultural property now or in future mortgaged, a Court having jurisdiction may order the execution of a usufructuary mortgage in favour of the mortgagee for a period not exceeding ten years in full settlement of the claim.

22. In any case in which the payments equal twice the principal the liability shall be held to be discharged. Principal shall mean the sum of money, or the value of goods, actually received, notwithstanding any acknowledgment of a larger amount.

23. Every registered document, promissory note, and credit shop account, shall, where other transactions between the same parties are current, contain in an annexure a clear statement of those other transactions, their nature and the amounts outstanding, and shall also contain an adequate reference to any transfer or encumbrance of property within the five years previous to registration or execution of such document, between the same parties.

24. Where a Decree Holder is allowed to bid for agricultural property sold under a Decree he shall, if the purchaser, pay not less than the value of the property as valued before the sale or order is issued.

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## REPORT ON THE INDEBTEDNESS OF THE AGRICULTURAL CLASSES.

### SUMMARY OF PART II.

**NOTE:**—Owing to the impracticability of printing the detailed tables contained in Part II of the Report, the following summary has been prepared as a Supplement to Part I.

1. Tables 1 to 9 of Part II contain an analysis of the assets and liabilities of the agricultural classes for Districts, Zanzibar Town, Provinces, and the whole Protectorate. The totals for the Protectorate are summarized in the table on page 4 of Part I of the Report. Of the grand totals in that table the corresponding figures for Districts, Provinces, etc., can be ascertained by reference to Table 10 printed in this Supplement.

2. Tables 10 to 18 of Part II contain an analysis by Districts, etc. of Debts, Interest Rates, Year of Encumbrance, Reasons for Debt, etc. (particulars of interest rates are given in paragraph 18 of Part I).

#### 3. Summary of Analysis of Debts (Tables 10-18).

	Pemba.	Zanzibar.	Total.
1. Total Debtors	2,499	204	2,703
2. Arab Debtors	427	12	439
3. Mortgages (Number)	360	115	475
4. Fictitious Sales (Number)	1,562	9	1,571
5. Other Debts (Number)	1,410	95	1,505
6. Year of encumbrance: Before 1926	168	18	186
7.                               1926 to 1930	973	76	1,049
8.                               1931	389	29	418
9.                               1932	571	35	606
10.                              (9 months) 1933	227	36	263
11. Reason for debts: Agricultural operating	84	11	45
12.                              Agricultural development	82	6	88
13.                              Purchase of plantation	178	65	243
14.                              Trade	94	35	129
15.                              Domestic Expenses	1,239	22	1,261
16.                              Social and ceremonial	566	30	596
17.                              Litigation	48	7	55
18.                              Interest charges	90	6	96
19.                              Sickness, etc.	61	4	65
20.                              Death duties	7	—	7
21.                              Undefined	66	—	66
22.                              Inherited	3	1	4
23.                              Purchase of house, car, etc.	14	7	21
24. Debt over 100% of assets	869	61	930
25. Usury	84	—	84
26. Creditor picking crop	173	2	175
27. Fictitious clove transaction	104	—	104
28. Excessive charge for rice, etc.	82	—	82
29. Undervaluation of plantation	134	—	134
30. Deed not registered	14	—	14
31. Proprietors owing wages to cultivators	82	—	82
32. Wages due to cultivators	Rs. ... 2,123	—	2,123

*Notes on above table:*

5. **Other debts:** i.e. the number of debtors who admit debts exceeding Rs. 50 in shop accounts, pronotes, and other unsecured forms.

6-10. **Year of encumbrance.** So far as possible the year is given of the original encumbrance out of which the present debt arose, but in many cases the date given is that of the latest deed, which includes an amount to cover overdue interest.

11-23. **Reasons for debt.**

*Agricultural Operating* of the Debtor's own or a leased plantation, including cultivation and harvesting and loss on a leased crop.

*Agricultural Development*: clearing, planting and regeneration. Construction of drying platforms, copra kilns, wells and necessary buildings.

*Purchase of Plantation*: includes purchase of a co-heir's share in a deceased's estate.

*Trade*: Shopkeeping, speculative dealings in produce, etc.

*Domestic*: Includes personal expenditure other than 16 and 23.

*Social and Ceremonial*: Includes expenditure on celebrations and ceremonies connected with births, circumcisions, puberty (female), marriage, divorce expenses, outstanding dowry, death and burial and prayers for the deceased. Travelling for social and religious purposes.

*Litigation*: Court and Counsels' costs.

*Interest*: Encumbrance of property to secure unpaid interest.

*Sickness, etc.* includes loss by fire or accident, fraud, theft or other circumstances beyond the control of the debtor.

*Death Duties*: Estate duty and Administrator-General's fees.

*Undefined*: Not otherwise defined or information not given.

*Inherited*: Encumbrance on inherited property.

*Purchase of house, vehicle, etc.*, not for professional purposes.

24. **Debt over 100% of Assets**: The value of the assets is as calculated in the explanation on page 4 of the Report (Part I). (In some instances the full assets were not revealed).

25. **Usury**: Excessive compound interest charges, sharp practice or fraud as alleged by debtors but unverified. Only exceptionally flagrant cases are shown under this heading.

26. **Creditor picking crop**: of cloves in 1933 and in some instances in previous years as well, to secure unpaid interest, and in cases of alleged fictitious sales to prevent the disposal of crops elsewhere by debtors, and to exercise rights of ownership as a measure of pressure on debtors.

27. **Fictitious clove transactions**: The shopkeeper—produce dealer—moneylender (unlicensed) "sells" cloves to a borrower on credit at two or three times the market value. The borrower re-sells them at the market price to the lender or to another produce dealer. The credit is usually secured by a fictitious sale of the borrower's plantation, additional charges being included in the deed value.

28. **Excessive charge for Rice, etc.** is given as the origin of many debts in certain localities. The price is usually two or three times the market value and the security a fictitious sale deed.

29. **Under-valuation of Shamba**: (Fictitious sales). Cases in which the value of the property conveyed is not less than twice the amount of the consideration shown in the deed, which in turn may be, e.g., twice the amount actually received by the borrower.

30. **Deed not registered**. Usually fictitious sales. The proportion is probably not high but there is vagueness on the part of many debtors on this point.

31-32. **Wages due to Cultivators**: Mainly Wanyamwezi from Tanganyika Territory. Approximately 2,500 returned to the mainland in the three months ending January 31, 1934. Of these, 135 from Pemba were interrogated before embarkation. They represented, with partnerships, 220 weeders who took with them Rs. 15,767, and left uncollected Rs. 23,731 due to them. The majority propose to return later to attempt to collect the balance. The average period of their stay in the Protectorate is 25.2 months, and the average earnings during that period is Rs. 180 each, plus expenses. Of 4,781 Pemba debtors, 168 admit owing Rs. 8,252 to weeders.

4. Table 19 contains a comparative statement by districts, etc. of population, agricultural holdings and disclosed assets and liabilities of proprietors. (For valuation basis, see explanation on page 4 of the Report, Part I). Lines 9-12. It is not practicable to distinguish the encumbered assets from the unencumbered assets of indebted proprietors, and whole assets are shown here. In line 11, Rs. 1,67,000 may be added to the assets of Town debtors in respect of the value of their town houses. Line 19 shows the average indebtedness of clove plantation proprietors since practically all the debt disclosed was incurred by this class.

5. Table 20, Statement of returns tabulated, and Table 21, Sales and Mortgages 1922-32, are not reproduced.

6. Table 22. Analysis of particulars of agricultural holdings, indebtedness, etc., of proprietors residing in certain non-clove areas is summarized below from similar particulars given in table 22 in respect of each area separately.

(a) Total population	...	8,803
<i>Number and race of proprietors.</i>		
Arabs	...	60
Indigenous	...	983
Other Africans	...	425
Other races	...	31
Total	...	1,499
(b) Number of proprietors of:—		
One holding	...	1,237
Two holdings	...	188
Three holdings	...	45
Four holdings	...	10
More than four holdings	...	18
(c) Number of holdings with		
One proprietor	...	1,009
Two proprietors	...	121
Three proprietors	...	38
Four proprietors	...	30
More than four proprietors	...	54
(d) Total holdings within areas	...	1,051
without areas	...	201
(e) Number of holdings of		
less than 10 mature coconut trees	...	153
10-25 " " "	...	411
26-50 " " "	...	355
51-100 " " "	...	202
more than 100 " " "	...	101
Total coconut trees, mature	...	57,691
immature	...	20,336
Average holding of coconut trees per proprietor	...	38.5
Number of holdings with immature coconut trees	...	897
(f) Number of holdings of clove trees	...	100
mature clove trees	...	3,233
(g) Number of holdings inherited		
Before 1913		
with title, registered	...	13
" " unregistered	...	106
without title	...	107
1913-1933		
with title, registered	...	245
" " unregistered	...	68
without title	...	107

<b>(h) Number of holdings purchased</b>		
Before 1913		
with title, registered	...	71
" " unregistered	...	Nil
without title	...	22
1913-1933		
with title, registered	...	412
" " unregistered	...	81
without title	...	52
<b>(i) Number of proprietors who have leased out coconut crops for</b>		
1 year	...	18
2 years	...	54
3 "	...	2
4 "	...	2
5 "	...	25
more than 5 years	...	11
Average Annual rent per coconut tree	...	28.8 cents.
<b>(j) Number of proprietors with debt of</b>		
less than Rs. 10	...	1
Rs. 10-25	...	6
Rs. 26-50	...	6
Rs. 51-100	...	7
More than Rs. 100	...	6
Total indebted proprietors	...	26
Total debt		Rs. 5,704

(This total of Rs. 5,704 includes a single debt of Rs. 3,000 in Muyuni South).

*Notes on above summary of Table 22.*

This inquiry was conducted in 11 contiguous shehas' areas in the Fumba peninsular, namely: Mbweni, Chukwani, Mitondooni Mombasa, Mitondooni Shakani (including a portion of Buyu), Shakani, Maungani, Kombeni, Kisakasaka, Dimani, Bwelco and Fumba, and, as a check, in Muyuni, in the South-East portion of Zanzibar.

The information was given voluntarily and does not include particulars relating to holdings of absentee proprietors. It is sufficiently complete to provide a fair indication of the general position in the non-clove areas of the Protectorate.

The majority of proprietors are Africans (Section (a)). Multiplicity of holdings (b) and joint ownership (c) exist to a considerable extent. Section (d) shows the number of holdings within and without the shehas' area in which the proprietor resides (not necessarily within or without the group of areas to which the inquiry was applied).

The holdings of coconuts (e) are only sufficient for domestic requirements and "pocket money". A fair amount of planting of young coconut trees is still being undertaken.

Small holdings of clove trees (f), mainly inherited, and almost entirely outside this group of areas, make for absentee proprietorship.

The proportion of holdings for which no documentary title exists (g and h) is high. This is largely due to loss of documents and unwillingness to incur the trouble and expense of obtaining documents especially on inheritance, in which, possibly, indigenous systems of tenure still operate. This laxity in safeguarding title no doubt facilitates encroachment.

The leasing out of coconut crops (i) provides almost the only means of raising money outside the family circle, so it is not surprising that there is little debt. In some areas dealers lease the crops of a compact group of holdings from the various proprietors who are glad to accept a small sum and to be relieved of the trouble of looking after the properties. On a basis of averages the 112 proprietors who have leased crops seem to have taken about Rs. 2,900 or about Rs. 26 each.

Section (j) shows 26 proprietors admitting debts totalling Rs. 5,704, but, excluding the exceptional case of one fairly substantial proprietor in Muyuni who owes Rs. 3,000, the

figures are 25 proprietors owing Rs. 2,704. Within this group of nearly 1,500 proprietors the indebtedness is very small—less than Rs. 4 each as compared with an average debt of Rs. 217 among Arab and African clove plantation proprietors throughout the Protectorate.

The explanation of the disparity in the degree of indebtedness of the two classes probably lies in the exercise of alternative occupations by the non-clove plantation proprietors, and in their more thrifty outlook engendered by the absence of indiscriminate credit. They assist in the clove harvest and undertake fishing, lime and charcoal burning, building and carpentry and the manufacture of requisite equipment. They grow a large proportion of their food supplies and deal in and transport foodstuffs to market.

There seems to be considerable scope for increasing the output and raising the standard of living of this section of the population but a prerequisite would appear to be an investigation of their conceptions of land tenure with a view to improving the security of their titles and to consolidate holdings.

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*Note to paragraph 24, Part I.*

Another practice is for the borrower to execute a receipt for a sum of money represented to be full or part payment of the price of his plantation with an undertaking to execute a registered deed of sale (sometimes within a specified period). On failure to repay this loan the lender sues for specific performance of contract or (sometimes) for damages in a sum exceeding that acknowledged (which is probably greater than the sum actually received).

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POPULATION, AGRICULTURAL HOLDINGS, ASSETS AND LIABILITIES.

TABLE 15.

(Arab and African only, unless otherwise stated).

	WETE	CHAKE	MKOANI	PEMBA	N. D.	S. D.	TOWN	ZANZIBAR	PROTECTORATE
Census 1931: Arab and African Population	38,830	32,967	23,477	95,274	38,585	52,789	33,219	124,593	219,867
Plantation Proprietors	1,065	1,197	366	2,628	720	2,509	304	3,533	6,161
(adult Males only) } All races									
Peasant Cultivators	8,668	6,187	5,339	20,194	7,613	7,581	460	15,654	35,848
(adult Males only)									
Bonus Registers: Clove Plantation Owners	3,640	4,936	3,114	11,690	3,080	2,940	...	6,020	17,710
(1922-28) Clove Plantations	7,431	8,287	6,218	21,936	5,067	4,312	...	9,379	31,315
Mature Clove Trees	779,961	540,021	464,707	1,784,689	310,569	661,743	...	972,312	2,757,001
Immature Clove Trees	35,000	54,000	24,000	113,000	36,758	41,237	...	77,995	190,995
Standard Value of Total Clove Trees: Rs. Lakhs	31.89	22.7	19.	73.6	13.16	27.29	...	40.45	114.05
" " Encumbered " " "	13.	12.59	12.92	38.51	2.55	5.05	4.36	11.96	50.47
" " " Coconut " " "	1.64	1.78	1.15	4.57	1.09	2.40	2.38	5.87	10.44
" " Total Encumbered Assets "	14.64	14.37	14.07	43.18	3.64	7.45	6.74	17.83	61.01
% of Encumbered Clove Trees to Total Clove Trees	41	55	68	57	19	18	...	27	48
Number of Debt Returns (i. e., Disclosed Debtors):	1,300	2,184	1,297	4,781	229	335	87	651	5,432
Debt: Mortgages	2.09	1.76	2.81	6.66	2.50	5.45	5.73	13.68	20.34
Fictitious Sales	3.03	2.56	3.93	9.52	.09	.02	.01	.12	9.64
Other Debt	2.01	3.29	2.30	7.60	.27	.46	.29	1.02	8.62
Total Debt	7.13	7.61	9.04	23.78	2.86	5.93	6.03	14.82	38.60
Debt per Head of Arab and African Population:	Rs. 18	23	39	25	7	11	(18)	12	18
" " Clove Plantation Proprietors:	195	154	280	203	92	201	...	244	217
" " Indebted "	548	348	697	497	1,249	1,710	6,931	2,277	710
% of Debt to Assets of Indebted Proprietors	49	53	64	55	79	80	89	83	63



ZANZIBAR PROTECTORATE

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Report  
of the  
Commission on Agricultural Indebtedness  
and  
Memorandum  
thereon by the  
Government of Zanzibar

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## TABLE OF CONTENTS.

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	PAGE.
Appointment of Commission and Terms of Reference ... ..	1
Introductory ... ..	1
Review of Indebtedness ... ..	2
Estimated Number of Clove Trees ... ..	2
Extent of Holdings by Indians ... ..	3
Variation in Quality of Plantations ... ..	5
Title in Relation to Indebtedness ... ..	5
Recommendations—	
(a) Adjustment of Existing Debts ... ..	5
(b) Credit Facilities ... ..	7
Conclusion ... ..	8
Memorandum by Government ... ..	11

## APPENDICES.

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- A. Minutes of Meetings.
- B. Copy of Public Notice.
- C. Memoranda.
- D. Cost of Production:—
  - (a) Cloves.
  - (b) Coconuts.
- E. Value of Security:—
  - (a) Cloves.
  - (b) Coconuts.
  - (c) General.

(NOTE:—It is not proposed to publish the Appendices).

## APPOINTMENT OF COMMISSION AND TERMS OF REFERENCE.

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The Commission was appointed by S. B. B. McElderry, Esquire, Acting British Resident, on the 2nd of August, 1934, and was constituted as follows:—

C. E. Law, Esquire,  
Chief Justice (*Chairman*).

J. P. Jones, Esquire.  
Assistant Chief Secretary and Provincial Commissioner (*Vice-Chairman*).

J. Parnall, Esquire.  
Administrator-General, Land Officer and Public Trustee.

Sheikh Seif bin Suleiman el-Busaidi.  
Arab Member of the Legislative Council.

Tayabali Rajabali, Esquire,  
Bar-at-Law.

2. The terms of reference were:—

“To enquire into and report upon the problem of agricultural indebtedness in the Protectorate; and, having due regard to the interests of the creditors, to make recommendations for the relief of debtors where such relief appears necessary on grounds of public policy”.

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## INTRODUCTORY.

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3. All meetings of the Commissioners were held at Zanzibar. The evidence of witnesses was taken in public in the High Court buildings on the following dates:—

4th, 25th and 29th September, 1934.

9th, 18th and 25th October, 1934.

6th and 28th November, 1934.

8th and 20th December, 1934.

2nd, 5th and 6th January, 1935.

23rd February, 1935.

1st March, 1935.

Private meetings of the Commissioners were held on numerous occasions. Minutes of the meetings will be found in Appendix “A”.

4. In response to a notice published in *The Official Gazette* in English, *The Zanzibar Voice* in English and Gujerati, *The Samachar* in English and Gujerati and *Al-Falaq* in English and Arabic, memoranda were received from various sources. In addition, a number of witnesses were examined. The form of the notice, as published in English, together with the memoranda, will be found in Appendices “B” and “C” respectively.

5. The object of the Commission was also made known throughout the Islands of Zanzibar and Pemba through the agency of the District Administration. Despite the fact that the views of the public were thus widely invited regarding the solution of the problem under reference, numerous letters and other communications were received from various persons concerning their own individual cases. These were considered to be of no real value, as they were unsupported by concrete proposals touching the question and they are, therefore, not attached to this Report.

6. The evidence of the witnesses who appeared before the Commission was taken down in shorthand by Miss R. McElderry and is attached hereto. We desire to express to her and also to Mr. M. T. Hincks, Registrar of the High Court, who acted as Secretary to the Commission, our thanks for the efficient manner in which they discharged their duties.

## REVIEW OF INDEBTEDNESS.

7. It is convenient, in the first instance, to refer to the Report on the Indebtedness of the Agricultural Classes, 1933, by Messrs. C. A. Bartlett and J. S. Last, which will hereafter be referred to as the Bartlett-Last Report. In paragraphs 12-13 thereof, the estimated number of clove plantation owners is stated to be 18,000, of whom 5,432 appear to have replied to a certain questionnaire. It is observed that these 5,432 owners are said to owe Rs. 38,60,000, of which Rs. 20,34,000 and Rs. 9,63,000 respectively are shown as due on mortgages and fictitious sales of their plantations. The remaining Rs. 8,63,000 is shown as due on account of other debts. As against these liabilities, Rs. 62,57,000 appears as assets possessed by these owners. These figures indicate that each of these owners is indebted to the extent of approximately Rs. 552 in respect of either a mortgage or a fictitious sale of his plantation and, in addition, to approximately Rs. 158-8-0 in respect of other debts, making an average aggregate debt of Rs. 710-8-0 per head. In our opinion, this is a somewhat heavy debt for the average owner to carry and would appear to be out of proportion to his assets of Rs. 1,152, as estimated in the report under reference.

8. We would observe, however, that the above valuation of the assets, as compared with present day prices, appears to be considerably under-estimated. From the evidence before us, we are satisfied that the valuation in the Bartlett-Last Report of Rs. 4 and Rs. 2 per mature clove and coconut tree respectively is extremely low and that Rs. 8 and Rs. 4 respectively would form a truer basis of calculation. The relative proportion of debts to assets is not, therefore, so heavy as it would appear to be at first sight. In his evidence, Mr. Bartlett frankly admitted that the basis of this estimate is not reliable, but maintained that the report as a whole is an indication of a problem of magnitude. He explained that he and Mr. Last were not invited by Government to examine creditors. Naturally, therefore, we are unable to accept the report except as indicative of a state of indebtedness which was likely to cause alarm to Government. Assuming that full opportunity was given to the persons concerned to state their case, we would express astonishment that only 5,432 owners out of approximately 18,000 replied to the questionnaire. Either the remaining 12,500 odd owners were completely indifferent as to their ultimate fate, or they did not reply because they were not financially embarrassed. If the latter surmise be the correct one, the position which presents itself, on the figures quoted, appears to be that about 30% of the owners are indebted and that about 23% of the total indebtedness is by way of mortgage or fictitious sale.

9. In their evidence, the Honourable K. K. Sualy, M.B.E. and Mr. S. B. Sidhwa roughly estimate the total agricultural indebtedness of the Protectorate to be from 60 to 80 lakhs of rupees. We incline to the view that this is an over-estimate and we believe that, if debts are adjusted in the manner indicated at a later stage of this report, it will be found that the actual total will be considerably lower. No conclusive figure in this connexion can be extracted from the Bartlett-Last Report. In the absence, therefore, of exact figures, which we are unable to obtain, we can only express the opinion that a state of indebtedness exists which would appear to warrant our examining the position generally, with a view to offering, to the best of our ability, suggestions for its amelioration.

## ESTIMATED NUMBER OF CLOVE TREES.

10. The consensus of opinion hitherto appears to have been that there are, in the Protectorate, 3,000,000 clove trees—2,000,000 in Pemba and 1,000,000 in Zanzibar. The figure given in the Bartlett-Last Report is 2,947,966, inclusive of 190,995 immature trees. These figures are shown as having been taken from the Clove Bonus Registers which were kept by the Department of Agriculture from 1922 to 1928.

11. It is worthy of note that Mr. W. Grazebrook in "The Clove of Commerce", published in 1925, states "The latest returns show the total number of trees to be about 3½ millions".

12. It has been ascertained from official records that, during the period 1922-1929, plantation owners were encouraged by Government to plant clove trees, a cash bonus being offered in respect of each tree found on examination to be planted in accordance

with directions issued by the Department of Agriculture. The procedure during the period 1922-1927 was to pay Re. 1 in respect of each tree on its attaining the age of one year, a further 8 annas on its attaining the age of 3 years and a final Rs. 1-8-0 on its attaining the age of 6 years. During the period 1928-1929, a certain number of consolidated payments of Rs. 3 were made. The total sum so disbursed during the period 1928-1929 was Rs. 488,383. It is clear, therefore, that during this period a large number of trees were successfully planted. It is, at the same time, realized that a number of trees were lost through various causes.

13. Regarding the yield of a clove tree, Mr. Grazebrook again states:—“It would appear, from statistics of ten years from a well-known plantation, that cloves carefully picked and dried show an average yield of 6 lbs. per tree”, that is to say, that it requires  $5\frac{2}{3}$  trees to produce one frasila (35 lbs.) of dried cloves. Evidence adduced before us tends to confirm this. Figures submitted by the Public Trustee indicate that four trees of average quality, properly cultivated, are capable of producing an average annual yield of one frasila of dried cloves. As there is some difference of opinion as to what is an average tree, the Public Trustee has expressed the view that an average annual return of one frasila from 5 trees would be a safer estimate. The Director of Agriculture, on the other hand, estimates that it takes 7 trees to yield one frasila per annum. Taking into consideration the evidence of other witnesses, Arab and Indian, it does not seem unreasonable to conclude that 6 average trees will yield one frasila per annum.

14. We would here make reference to the Report by Mr. K. P. S. Menon, I.C.S., who was deputed by the Government of India to enquire into and report upon the effect on Indian interests of certain Decrees passed, in 1934, by the Government of Zanzibar. Examination of the statistics officially furnished to Mr. Menon regarding the quantities of cloves delivered at the Custom House during the period 1924-1934 (*vide* page 16 of his Report) shows total receipts of 6,665,000 frasilas, that is, an average of 666,500 frasilas per year. As it has been shown that an average tree yields on an average 6 lbs. of dried cloves per annum, it would appear that the number of trees represented by 666,500 frasilas is 8,999,000 which, we would observe, is 1,242,000 trees in excess of the figure of mature trees given in the Bartlett-Last Report. We have also examined figures taken from the records of the Customs Department relating to the export of cloves during the same period. We find that those figures, together with an estimate of stocks in hand, bear out the conclusion which we have arrived at, namely, that there must be in the Protectorate not less than 4,000,000 bearing clove trees.

### EXTENT OF HOLDINGS BY INDIANS.

15. It is on record that, in 1922, 152,490 clove trees were owned by Indians (paragraph 11 of the Menon Report).

16. Figures furnished to us by the Honourable C. M. Patel (Pemba) and Mr. N. C. Mehta (Honorary Secretary, Indian National Association, Zanzibar) show that the total number of clove trees *mortgaged* to Indians is 309,590, of which 125,250 are in Pemba and 184,340 in Zanzibar; and that the total number of clove trees *owned* by Indians is 502,613 of which 351,800 are in Pemba and 151,813 in Zanzibar.

17. With regard to clove trees *owned* by Indians in Pemba, Mr. Patel agreed that so-called owners may include mortgagees by way of fictitious sale. This must be so. On the assumption that the total number of clove trees in the Protectorate is 2,947,966 (as given in the Bartlett-Last Report), the number of clove trees mortgaged to and owned by Indians, according to their own figures, approximates 27% of the total. We have, however, already expressed the view that there are not less than 4,000,000 clove trees in the Protectorate and an examination, in this light, of the figures furnished by Messrs. Patel and Mehta shows that:—

- (a) the number of clove trees *owned* by Indians, including fictitious sales, is approximately 12½% of the total;
- (b) the number of clove trees *mortgaged* to Indians is approximately 7½% of the total.

18. Figures supplied by the Registrar of Documents show that, during the period 1923-1933, Indians in Pemba acquired 305,676 clove trees, and that Indians in Zanzibar acquired, during the same period, agricultural property of the estimated value of

Rs. 21,64,288. The reason why the number of clove trees which passed into Indian hands in Zanzibar is not available from official records is that, whilst in Pemba it has been the practice to record the number of trees in deeds of conveyance, such practice was not followed in Zanzibar until the year 1931.

19. From the Blue Book for 1933 (page 182), it appears that in Zanzibar Island 16,000 acres were under cloves and 45,000 acres under coconuts. The area under cloves is, therefore, 26% of the total area under cloves and coconuts. As Indians in Zanzibar acquired, during the period 1923-1933, agricultural property of the value of Rs. 21,64,288, the value of clove plantations acquired by them during that period may be estimated at 26% of Rs. 2,164,288, that is, Rs. 5,62,714. We have reliable evidence to the effect that clove trees were sold during this period at an average price of Rs. 11 per tree. On this basis, therefore, the figure Rs. 5,62,714 would represent 51,156 trees, no allowance being made for the value of plantation buildings. The foregoing figures give a total holding by Indians of 509,322 clove trees, arrived at as follows:—

152,490	Held in 1922.
305,676	Acquired in Pemba, 1923-1933.
51,156	Acquired in Zanzibar, 1923-1933.
—————	
509,322	As compared with Messrs. Patel and Mehta's total of 502,613 trees.
—————	

20. In the Bartlett-Last Report Rs. 968,000 are stated to be due by Arabs and Africans on account of fictitious sales. At a valuation of Rs. 4 per tree, as adopted in that report, this indicates that 240,750 clove trees have passed to Indians by way of fictitious sale. Having regard to the provisions of Section 18 of the Alienation of Land (Restriction and Evidence) Decree, 1934, it is reasonable to assume that a considerable proportion of these trees will, in due course, revert to the original Arab and African owners, and there is evidence before us to show that this is, in a number of instances both through the medium of the Courts and by private treaty, actually taking place. Assuming that these 240,750 trees revert to their former owners, the Indian holding would become reduced from 12½% (*vide* paragraph 17) to 6½% of the total. Apart from this consideration, figures supplied by the Registrar of Documents show that in the Island of Zanzibar, during the period 1923-1934, Indian mortgagees purchased at Court auction sales, in satisfaction of their claims, clove and coconut plantations of the aggregate value of Rs. 508,062. Taking 26% of this amount (*vide* paragraph 19), we arrive at the figure of Rs. 132,096 which, at Rs. 11 per tree, represents 12,009 trees. During the same period, 25,144 clove trees were purchased in Pemba under similar circumstances. We have evidence that, in certain instances, these mortgagee-purchasers would readily re-transfer to the Arab and African mortgagors the properties which they have thus acquired. From the foregoing, it may, we consider, be reasonably assumed that, in the course of the next few years, especially if facilities are provided for the liquidation of existing debts, a further number of trees now in Indian hands are likely to revert to their original owners.

21. No information is available from official sources regarding the number of clove trees under mortgage, as discharges thereof were not compulsorily registrable before 1934. The figure given by Messrs. Patel and Mehta is 309,590, or 7½% of the Protectorate total. As we have satisfied ourselves that the figure furnished by them regarding the number of trees owned by Indians is approximately correct, we are disposed to accept the mortgage figure as approximately correct also.

NOTE.—Sheikh Seif bin Suleiman does not accept the figures furnished on behalf of Indian mortgagees regarding the number of trees under mortgage to them.

22. It is stated in the Bartlett-Last Report (paragraph 55) that "it is probable that not less than half the agricultural property of these islands has passed into the hands the money-lending classes and that at least half the remainder is encumbered to them, most of it heavily." We find that the above expression of opinion is not borne out as a result of our investigations. We are, of course, aware of the fact that there are money-lenders other than Indians, but we feel that the amount so involved is, comparatively speaking, negligible. Before leaving the subject of Indian holdings, we desire to point out that such property as has passed into Indian hands has not passed into the hands of the money-lending classes exclusively, for there are in the Protectorate Indians who hold properties as *bona fide* investors and agriculturists.

## VARIATION IN QUALITY OF PLANTATIONS.

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23. We have irrefutable evidence that the valuations placed on clove and coconut trees vary very considerably, the determining factors being the age and productive capacity of the trees, the quality of their soil and their situation in relation to the main roads. It is a well-known fact that there are plantations in the Protectorate containing clove trees which yield a frasila or more of dried cloves in a season, whilst others contain trees which produce as little as one lb. or less per season. In view of these facts, we consider it would not be right to place one value on all trees and we are of the opinion that the proper course is to value each plantation separately.

## TITLE IN RELATION TO INDEBTEDNESS.

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24. It is generally admitted that the absence of cheap credit facilities, coupled with the disinclination of mortgagees to foreclose and dispossess their debtors, has aggravated the problem of agricultural indebtedness, and it has been suggested that the absence of a survey of properties and of registration of title appreciably increases the cost of credit (paragraph 48 of the Bartlett-Last Report). We have already expressed the opinion that a state of indebtedness exists such as to warrant the consideration of measures to be taken for its alleviation and, as a result of our investigations into production costs and plantation values, details of which are contained in Appendices "D" and "E", we are convinced that, given cheap credit facilities, the majority of plantation owners who are now embarrassed should be able to free themselves in due course.

25. The question which now confronts us is whether such relief, which we consider should be immediate, should necessarily await the introduction into this Protectorate of a system of land survey and registration of title, regarding which, we understand, the Government is shortly to receive the advice of no less an authority than Sir Ernest Dowson, K.B.E. There is, in our opinion, no question that such a system, the completion of which might take several years, will be of considerable value. We have, however, the evidence of local advocates of long standing and experience. They inform us that loss from bad or defective title is very small, barely one per cent, which, with more careful investigation, may be still further reduced. The Public Trustee, who has during the past 17 years invested nearly 20 lakhs of rupees, states that he has so far had only one case of defective title in which he anticipates a possible loss of about Rs. 2,000. It will thus be seen that, if reasonable precautions are taken, the risk of loss of money lent on the security of agricultural properties in Zanzibar is negligible. With regard to Pemba, where conditions differ somewhat from those which obtain in Zanzibar, title will require more careful scrutiny and closer investigation.

26. We therefore consider that the immediate relief of debtors is practicable, as title can be investigated, in the case of the larger plantation owners, by experienced local advocates, which is the practice followed by the Public Trustee. In the case of the smaller owners, with a view to saving expense, it is probable that title can be investigated with reasonable certainty by the staff of the District Administration.

## RECOMMENDATIONS.

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### (a) Adjustment of Existing Debts.

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27. We have now reached the stage when we consider it appropriate to outline the manner in which debts should be adjusted. This is a matter which presents no little difficulty. We have to bear in mind the terms of reference which include the interests of creditors which, we would respectfully agree, is a very proper provision, in other words, vested interests. We feel we are not concerned with the legislation of 1934, such as the Clove Growers' Association Decree, the Clove Exporters Decree, the Agricultural Produce

Decree and the Adulteration of Produce Decree, all of which we regard as matters of public policy primarily affecting the prosperity of the Protectorate as a whole and not directly concerning the rights of individuals as between themselves. The Moneylenders (Amendment) Decree, together with its principal Decree, stands on a footing of its own, and regulates the fate of transactions coming within its scope. With regard to vested interests, they fall into two natural categories, namely, secured and unsecured debts. The problem before us is what special steps should be adopted to enable debtors to pay off their creditors, fair consideration being given to the merits of the cases concerned.

28. With the object of bringing creditors and debtors together and of examining claims Conciliation Boards might be set up. Legislation of this nature exists elsewhere, for instance, the Farmers' Creditors Arrangement Act, 1934 (Canada), the Debt Adjustment Act, 1933 (Saskatchewan) and the Debt Adjustment Act, 1933 (Alberta). Similar legislation has been under consideration in India, namely, the Punjab Relief of Indebtedness Bill. Copies of these measures are, we understand, in the possession of Government.

29. Generally speaking, the object of such legislation is, on the application of a debtor, to bring his creditors, secured and unsecured before a properly constituted Board. If, therefore, an amicable settlement be arrived at between the parties, so much the better; it should then be duly recorded and certified by the Board. In our opinion, the Board should also be empowered to impose on the parties and certify any adjustment which is acceptable to the debtor and sixty per cent in value of his creditors. We consider, however, that any adjustment thus imposed should be appealable to the Chief Justice whose decision should be final. If an amicable settlement were not arrived at, or if no adjustment were imposed, the Board should refer the parties to their ordinary civil rights. We feel convinced, however, that the Board would be able to effect settlements in the majority of cases.

30. The personnel of the Board is a matter of some importance and we would therefore suggest that it should consist of a Resident Magistrate (with a knowledge of local conditions), an Indian and an Arab. We do not consider that the parties concerned should be entitled to be represented by advocates before the Board in cases where the total indebtedness does not exceed Rs. 1,500.

31. We consider that the Board should be empowered to disallow interest above 10% and 15%, on secured and unsecured debts respectively for the period for which such interest has been unpaid. As to compound interest, we consider that it should not be allowed at all. In recommending the above maximum rates of interest, where unpaid, we fully realize that some debtors may have paid at a higher rate for a considerable time and that others may have paid little or nothing and that our recommendation may, therefore, appear to be hard on the debtor who has paid regularly. It should, however, be borne in mind that the debtor who has paid little or nothing will be faced with the payment of a larger sum by way of balance of interest than the debtor who has paid regularly. This will also penalize, in a sense, the creditor who has omitted to collect his interest and who is not so deserving of sympathy as the creditor who has collected his interest regularly and who has thus left his debtor with a smaller liability on account of interest.

32. With regard to secured debts, the Board should value the security and, if its value be found to be *more* than the amount found due to the secured creditor, the debtor should be given time—if necessary, up to, say, four or five years—to pay off the creditor by such annual instalments as the Board may fix. If, in such a case, there be unsecured creditors also, they should be entitled to share, in proportion to their proved claims, in the difference between the value of the security and the amount found due to the secured creditor. In making any order for payment by instalments, the Board should be at liberty to apportion what amount should be paid annually to the secured and unsecured creditors respectively. Whatever balance may remain due to unsecured creditors over and above the difference between the value of the security and the amount due to the secured creditors should be made irrecoverable after consideration has been given by the Board, in the manner indicated in paragraph 35, to the debtor's ability to pay.

33. In the event of the value of the security being found to be *less* than the amount due to the secured creditor, the unsecured liabilities should be made irrecoverable, consideration having been given to the principle outlined in paragraph 35, and the Board should have a discretionary power to order the debtor to pay to the secured creditor such annual instalments as it considers advisable over a period not exceeding five years. The instalments so paid under the order should be utilized (a) to discharge arrears of interest and (b) to reduce principal. The above provision would tend to save many debtors who might otherwise lose their plantations. Such debtors, having reduced the amount of their



indebtedness over the period of years allowed to them by the Board, should then be in a position to raise money on favourable terms to liquidate the balance e.g., by arranging a transfer of mortgage.

34. Under the scheme above-outlined, a debtor would get rid of his debts at large, which would thus become defined and which would be liquidated in due course, provided he complied with the order of the Board. Failure to do so should render the security liable to immediate sale at the instance of any of his proved creditors, together with any other property movable or immovable, belonging to the debtor. We consider that, in such cases the mortgagee should have the right to bid for and purchase the property. We would here observe that it is claimed on behalf of the Indian community, the overwhelming majority of whom are, to all intents and purposes, "Zanzibaris", that they should share with Arabs and Africans the right to acquire plantations and that, accordingly, mortgage securities, when sold, should be sold in a free and unrestricted market. Any such principle should, we consider, be so applied as to ensure that no community nor individual acquires an entirely disproportionate number of plantations, for this, we feel would be neither economically nor socially desirable. Should it ever be found necessary, in order to avoid this, to apply any restriction against the right of a mortgagee to bid for and purchase the property mortgaged, we consider that he should be compensated by Government, otherwise he would suffer an injustice inasmuch as he would have to face a loss of capital by reason of interference with his vested rights. Government should, of course, be free at all times to intervene on behalf of a debtor in order to assist him in such manner as they may see fit.

35. In all cases, when making its order, consideration should be paid by the Board to the fact whether the debtor possesses other means or other property, movable or immovable, apart from the security, in order to arrive at a true estimate of his ability to pay.

36. We consider that, in dealing with fictitious sales, the Board should have the powers conferred on a Court by Section 18 of the Alienation of Land (Restriction and Evidence) Decree, 1934, with the following reservation, namely, that having declared the transaction to be a mortgage, it should treat it as an ordinary and not a usufructuary mortgage.

37. The Board's certificate should have the force of a decree, and should be filed in either a Resident Magistrate's Court or the High Court, according to the monetary value thereof. Where instalments or other payments have been ordered by the Board, the Court could employ the services of the Official Assignee to collect and distribute the same.

38. The valuation of a security, which will not be free from difficulty, should be done by approved brokers attached to the Board, but the parties should also be at liberty to bring evidence on the subject. Brokers should be instructed that their valuations should reflect the price that would be paid by a willing purchaser to a willing vendor in an open market.

39. The procedure before a Conciliation Board might follow that outlined in Part 4 of the Punjab Indebtedness Bill, with such alterations as may be considered necessary.

40. As an alternative to Conciliation Boards, we would recommend that creditors and debtors should be left to adjust their differences, if they so desire, through the Courts, which should be invested with the same powers as we have recommended in the case of the Conciliation Boards. Whilst we fully recognize the advantages of Conciliation Boards, we prefer and strongly favour this alternative, which has the merit of utilizing existing machinery and thus of avoiding the expense and delay likely to be entailed if Conciliation Boards are resorted to.

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### (b) Credit Facilities.

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41. As the result of our investigations, we recommend that Government should assist plantation owners, who are deserving of assistance, with loans at a low rate of interest. This, we consider, would be of inestimable benefit to the Protectorate as a whole and should go far to solve the problem of agricultural indebtedness. Given such assistance, many agriculturists, who may now be on the verge of insolvency, would, we believe, be saved.

**CONCLUSION.**

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42. In the course of our enquiry we have had occasion to review certain steps which have been taken by Government with the object of safeguarding the agriculturist from future indebtedness. We have also considered whether any additional or alternative measures should be taken to this end, but, having strict regard to the terms of reference, we have refrained from including in this report any recommendations thereon which, however, are available, if required. Finally, we would refer to the moratorium created under the provisions of section 19 of the Alienation of Land (Restriction and Evidence) Decree, 1934, which, we consider, should be lifted as soon as possible after a decision has been taken by Government regarding the liquidation of existing debts.

C. E. LAW,

J. P. JONES,

J. PARNALL,

SEIF BIN SULEIMAN EL-BUSAIDI.

TAYABALI RAJABALI.

Zanzibar, 3rd April, 1935.

# Memorandum

by the

Government of Zanzibar

on the

Report of the Commission

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## MEMORANDUM.

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Summary of recommendations of the Commission on Agricultural Indebtedness and of views and recommendations submitted by the Government of Zanzibar for the consideration of the Secretary of State for the Colonies.

The Commission recommends that Conciliation Boards or Courts should be established for the settlement of debts.

The Government considers that the ordinary Courts of the Protectorate, specially authorized for the purpose, are preferable to Conciliation Boards, but that appeal should lie from these Courts to the Chief Justice, whose decision should be final.

The Commission recommends that, if amicable arrangements are come to between debtors and creditors for settlement of debts, these arrangements should be certified by Courts. It recommends also that Courts should be empowered to impose on the parties and certify any adjustment which is acceptable to the debtor and 60% in value of his creditors. If an amicable settlement is not arrived at or if no adjustment is imposed the Court should refer the parties to their ordinary civil rights.

In the view of the Government these recommendations are inadequate or to some extent unsatisfactory. The indebtedness question is a very serious one and, in the interests of both debtors and creditors, the Government considers that every effort should be made to deal with it to the fullest extent possible. It considers, therefore, that it is not sufficient to rely upon amicable settlements but that Courts must have power, when cases come before them in respect of debts contracted before the clove legislation of 1934, or upon application of either party, to make a compulsory adjustment of the debt if the case is a proper one for adjustment, and in such cases to re-open past transactions.

The Commission recommends that Courts should be empowered to disallow interest above 10% and 15% on secured and unsecured debts respectively for the period for which such interest has been unpaid.

The Government agrees in principle with this recommendation but considers that where a case is brought before the Court for adjustment interest already paid at a higher rate should be taken into consideration. It agrees with the further recommendation of the Commission that compound interest should not be allowed.

The Commission recommends that in the case of secured debts the Courts should value security and that, if its value is found to be more than the amount due to the secured creditor, the debtor should be given time—up to say four or five years—to pay off the creditor by such annual instalments as the Court may fix.

It recommends also that if in such a case there are unsecured debts also the unsecured creditors should be entitled to share, in proportion to their proved claims, in the difference between the value of the security and the amount due to the secured creditor.

In making any order for payment by instalments the Commission recommends that Courts should be at liberty to apportion what amount should be paid annually to secured and unsecured creditors respectively, and that whatever balance may remain due to unsecured creditors over and above the difference between the value of a security and the amount due to the secured creditor should be made irrecoverable after consideration has been given to the ability of the debtor to pay. The ability of the debtor to pay should be based on the considerations whether the debtor possesses other means or other property movable or immovable apart from the security. If the security based on these considerations should be found to be less than the amount due to a secured creditor, the Commission recommends that the balance, both of secured and unsecured debts, should be made irrecoverable.

The Government concurs generally in these recommendations subject to:

(a) in making an order as to the time and method of payment, the amount of instalments, if any, and the period over which payments are to be spread, Courts must take into consideration the immovable property of the debtor whether charged with the debt or not, such movable property as is not exempt from attachment under the Civil Procedure Decree, and the debtors probable earnings.

(b) when considering the question as to whether a debtor can redeem his debt if spread over a number of years the probable annual return from a plantation is a better criterion than the estimated market value.

The Government considers that a period of four or five years is wholly inadequate and that in the vast majority of cases debtors would find it quite impossible at the end of that period to make satisfactory arrangements to finance themselves, and that the very circumstances which justify action being taken to effect arrangements between debtors and creditors, in the interests of both, would recur. If the debt position is to be retrieved and if creditors are to obtain payment of sums found by Courts to be due to them a maximum period of twenty years must be accepted. Payments must be based chiefly on the average annual receipts from plantations which change according to the clove crop variations. The amount of debt having been settled the Courts should be able to decide whether by annual payments a debtor could redeem his debt. If not, disposal of assets should be ordered. If annual payments are ordered Courts should arrange that they are within the capacity of the debtor to pay and equitable to both parties and decide whether they should be secured by the appointment of Receivers or other approved method. The creditor will thus know exactly what sum he will recover and by what method of instalments and the debtor will be liable for payment, failure to pay rendering his assets subject to sale. Creditors who wish to do so should find little difficulty in disposing of a settled and, as far as is possible, a secured asset.

The Commission recommends that failure to comply with an order of a Court should render security liable to immediate sale together with property movable or immovable of the debtor and that, where sale is ordered, the creditor should have the right to bid for and purchase the property but that the principle should be applied so as to ensure that no community or individual acquires an entirely disproportionate number of plantations.

Subject to the reservation of movable property exempt from attachment under the Civil Procedure Rules and possibly to a discretion in the Courts, the Government agrees but, where sale is ordered in such circumstances, it considers that the sale should be in the open market without any restrictions on alienation.

The Commission recommends that the Government should be free at all times to intervene on behalf of a debtor in order to assist him in such manner as it may see fit.

This is a somewhat indefinite recommendation but, if circumstances justify interference and it is possible to do so without prejudice to the creditor, there would obviously be no objection.

The Commission recommends that Courts should have powers conferred by Section 18 of the Alienation of Land Decree in respect of what are known as "Fictitious Sales" but that where such a sale is held to be a mortgage it should be an ordinary and not a "usufructuary" mortgage.

The Government concurs.

The Commission recommends that where valuations of securities are necessary they should be done by approved Brokers attached to the Courts and that Brokers should be instructed that their valuations should reflect the price that would be paid by a willing purchaser to a willing vendor in an open market.

The Government, while agreeing in principle, considers that Courts should find little difficulty in ascertaining the value of securities and that they may safely be left to arrange for valuations, calling evidence or obtaining assistance of Brokers as they deem advisable.

In paragraphs 7 - 9 of its report the Commission reviews the indebtedness position; in paragraphs 10 - 14 it deals with the estimated number of clove trees; and in paragraphs 15 - 22 with the extent of holdings by Indians.

The Government, after a careful and exhaustive examination of the grounds on which the Commission based certain conclusions to which it came on these matters, has found it necessary to inform the Secretary of State that it is impossible for it either to accept the reasons given by the Commission for its conclusions or to agree with the conclusions themselves. Government is satisfied that the restriction upon alienation of land is absolutely essential in the interests of the agricultural classes and that without such restriction the rapid transfer of land away from such classes will continue.

Mr. K. P. S. Menon, I.C.S., in his report to the Government of India of the 10th September last said "The Land Alienation Decree is unobjectionable provided—

"(i) the racial distinction at present drawn between African and Arabs on the one hand and persons who are not Africans and Arabs on the other is replaced by the more rational distinction between agriculturists and non-agriculturists, and

"(ii) the Decree is not allowed to affect the rights arising from past transactions relating to land. As already stated a Commission has been appointed to enquire into this problem; and action may be deferred pending the receipt of its recommendations."

It will be seen that if the recommendations of the Government above referred to are approved (ii) of Mr. Menon's objections will be met to the fullest extent possible. In regard to (i) it is considered that there is some justification for this criticism and it is hoped that a definition of "agriculturist" suitable to the conditions of Zanzibar will be drafted for inclusion in amendments to the Land Alienation Decree which, if approved, will meet the objection expressed by Mr. Menon.

While in this memorandum the views expressed by the Government of Zanzibar on the report of the Indebtedness Commission are briefly summarized, the Secretary of State for the Colonies has not yet had time to consider the despatch in which they were submitted to him.

ZANZIBAR PROTECTORATE

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Report of a Sub-Committee of Zanzibar  
Advisory Council on Education  
on Grants-in-aid and on the  
Reorganization of Indian  
Education, November,  
1935.

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PRICE: Re. 1

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1935

**REPORT OF A SUB-COMMITTEE OF ZANZIBAR ADVISORY  
COUNCIL ON EDUCATION ON GRANTS-IN-AID AND ON  
THE REORGANIZATION OF INDIAN EDUCATION,  
NOVEMBER 1935.**

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1. The Sub-Committee has carefully considered the principles set forth in the Memorandum on Educational Grants-in-Aid of the Advisory Committee on Education in the Colonies, dated April 1933 (Colonial No. 84).

2. Summarized, these principles are:—

- (1) The amount set apart for grants-in-aid should be decided locally with reference to the needs and circumstances of the Protectorate (p. 4).
- (2) Government should welcome and encourage all voluntary effort which conforms to the general policy (p. 4).
- (3) To deserve Government encouragement the schools aided should reach (p. 4), or give promise of reaching (p. 6), a standard of educational efficiency comparable with that reached by Government schools.
- (4) Aided schools must submit to the general supervision of Government (p. 4), not necessarily a close or detailed control, but sufficient to secure that the general policy of Government is carried out.
- (5) The conditions of salary and the general status of staff which aided schools should be encouraged to aim at is that which is accepted as suitable for Government officers.
- (6) Grants should be considered under the heads (a) recurrent (b) non-recurrent.
- (7) Recurrent grants should if possible be given for a definite period of three or more years to give a sense of financial stability.
- (8) Grants based on salaries of staff (including expenditure on board, lodging, clothing, medical attendance, etc.) are preferable to capitation or result grants (pp. 9, 10, 11).
- (9) Provision must be made for pension or superannuation funds, and in the case of European staff for furlough allowance, passage money, and leave reserve (such expenditure to be included in the staff expenditure on which grant is calculated).
- (10) Efficiency grants may be given in addition to salary grants, but are of doubtful value owing to difficulty of assessment (p. 9).
- (11) When fees are charged grants may be based on the difference between salary expenditure and the school's fees. The fees should be calculated at rates to be approved by Government (p. 12).

3. The Sub-Committee sees no reason why these principles should not be applied to Zanzibar. Detailed comments and recommendations are made in succeeding paragraphs.





should not be decreased but might be increased to some small extent if the revenue of the Protectorate increases.

(h) The distribution of this total grant should be considered from time to time: suggestions in this regard are made in paragraphs 13 and 15.

5. *Re para 2 (2).*

(a) The general Government policy is to provide directly for Arab and African education and by aids to encourage Indian education. The various heads of educational activities included in this policy are detailed in Part I, para 9, of the Annual Report for 1934.

(b) The main point in the policy is to foster rural education to the limit that Government funds will allow and to endeavour to educate the rural people to the stage when they themselves will take a part in the burden of that education, through rural Native Councils, as suggested in Section 186 of Sir Alan Pim's report.

(c) In regard to secondary education, the Government policy is to provide for all nationalities and sects on a fee-paying basis and to limit numbers to the needs of the Protectorate.

(d) To conform with this latter point of policy, grant-aided middle schools must have curricula which will enable the best boys to enter the Government Secondary School.

(e) In respect of African education no grant is given to Missions. There appears to be little or no prospect of Missions rendering effective help in the education of the rural masses. Where, however, Missions are able to run rural schools on lines acceptable to the people in accordance with Government requirements, the Sub-Committee recommend grant-in-aid. In regard to Mission urban education for Africans, the Sub-Committee agree that there should be no objection in principle (provided schools accord with Government requirements for the class of school concerned, and fill a recognized place in the general scheme of education), to such schools receiving grant-in-aid on the same footing as community Indian schools. The restriction or non-restriction of admission to Christian pupils would in such cases depend on the size of the classes. If non-Christian pupils are admitted there should be an adequate conscience clause.

6. *Re para 2 (3).*

This should be rigidly adhered to in future. Such schools as do not after five years' enjoyment of grant attain a satisfactory standard should cease to enjoy grants.

7. *Re para 2 (4).*

This should be rigidly adhered to. In particular the following points should be insisted on:

- (a) Syllabuses suiting the general scheme of education.
- (b) Admission of pupils limited to races and sects which are not provided for by other Government or grant-aided schools.
- (c) Admission of pupils limited to early part of school year.

8. *Re para 2 (5).*

(a) The interpretation of this principle in Zanzibar is one of some difficulty and it should be made clear that the staffing of Government elementary and middle schools is one which consists entirely (apart from the Heads of the Rural Middle School and the Girls' School) of local staff.

(b) For Indian schools, therefore, the comparison is with the salaries of Government teachers who teach in the town schools. In practically all our urban Indian schools the staff must consist of (a) trained teachers engaged from India (b) local teachers (generally untrained) engaged in Zanzibar, and the salary scales recommended are reasonably close to the Government scales of salary for teachers in town schools. In the special case of the Convent School, European Sisters form the bulk of the staff, and it is hard, so far as grant is concerned, to justify European staffing for the teaching of the communities catered for. It is not possible to include this school under para 2 (5).

(c) Were grant to be paid to the Convent School on European scales of salary it would constitute an injustice to the schools which cater for other communities. In making this comment the Sub-Committee have in mind its view that there is no place in the general system for a large Convent School open to all nationalities and that, in order to fit in with the general scheme, the Convent School should be limited to Goans, Parsees, Seychellois and such other nationalities or sects as are not provided for by grant-aided schools.

(d) New grants-in-aid conditions should make it incumbent on all managers to adopt a satisfactory system of staff service agreements or letters of appointment.

9. *Re para 2 (6).*

In order to obtain non-recurrent grants, managers of schools should make early application so that a reply from the Government may be obtained before they commit themselves to expenditure. Such grants can only be given if Government finances allow.

10. *Re para (2) (7), (8), (9), and (11).*

The Sub-Committee agrees.

11. *Re para 10.*

The Sub-Committee does not recommend efficiency grants in Zanzibar. To administer such grants properly would necessitate an increase of administrative staff which cannot at present at least be contemplated.

12. Before considering the general distribution of the funds available for grant-in-aid, the Sub-Committee consider it appropriate to deal with the second item of their terms of reference, the question of Indian education.

13. *Indian Education.—Boys.*

(a) In 1933 a meeting was convened at the instance of His Excellency the British Resident to discuss the reorganization of Indian education.

(b) This meeting was attended by prominent Indian representatives of all important communities except the Goan community (whose education is catered for by the Roman Catholic Mission and is in the English medium) and the Ismaili community, the Council of which took objection to individuals being invited to represent their community.

(c) The policy recommended, and on which there was general agreement, was:—

- (i) That middle education (apart from the middle classes of the Ismaili School, as the community was not likely to agree) should be centralized in the Sir Euan Smith Madressa.
- (ii) That the elementary classes managed by communities should continue to be so managed in order that adequate religious instruction should be given in the early stages.
- (iii) Combined with the above, it was suggested that secondary education should be developed in connexion with the centralized middle school.

(d) The position in regard to secondary education has changed owing to the decision of Government to undertake direct the provision of secondary classes.

(e) The Sub-Committee considered the question of the suggested centralization in the light of the educational needs of the various communities concerned.

- (i) The Ismailis have a splendid school building and receive grant-in-aid in respect of their elementary and middle classes.

It does not appear likely that this community will join in a centralized scheme. The Sub-Committee therefore recommend that the community should continue to manage its own elementary and middle classes, and continue to receive grant-in-aid therefor.

- (ii) The Bohora community should continue to manage its own elementary classes, but should send its boys to the Sir Euan Smith Madressa for middle education.
- (iii) The Parsee community; the Ithnasheri community; the Hindoo communities and the Memon community. None of these communities appears to be able to run elementary classes such as would give promise of satisfying grant requirements.

Elementary education for them should, therefore, continue to be provided by the Sir Euan Smith Madressa, but the parents should pay somewhat increased fees, so as to bring them more into line with the parents of communities which supply their own elementary schools.

The religious side of the education of the pupils of these communities should be catered for by the communities themselves, either out of school hours or at specified times within the school hours. Facilities for such instruction could be given in the school.

- (iv) The Goan community.

This community should continue to be catered for by the Mission, and the Mission should be encouraged to provide adequate middle classes for boys. Owing to the language medium, it is not possible to cater for Goan boys at the middle stage in the Sir Euan Smith Madressa.

#### SUMMARY OF RECOMMENDATIONS.

(f) The Sub-Committee recommend that Government should encourage the centralization of Indian middle education to the extent specified in the previous paragraph: that special aid should continue to be given to the Sir Euan Smith Madressa (see paragraph 14): and that grants should continue to be paid, under a revised general system, to the elementary and middle classes of the Ismailia School, to the elementary classes of the Bohora School and to the middle classes of the Bohora School until absorbed in the centralized institution.

(g) Special recommendations for the Convent School are made in paragraph 16.

#### 14. *Indian Education. —Boys (continued).—The Sir Euan Smith Madressa.*

(a) This is the school in which it is proposed that Indian Middle education should be centralized, and which the Sub-Committee recommends should continue to receive special aid outside the general grant-in-aid system. The reasons for this recommendation will become apparent in the succeeding sub-paragraphs of this section.

(b) The school was started in 1890 by public subscription collected at the instance of Sir Euan Smith, then First Consul, to supply a general demand for education evinced by the Indian communities in common.

(c) From the beginning it has been an undenominational school managed by a representative committee of Indians.

(d) Through the energy of successive secretaries and headmasters, it has developed a very high tone, which has been heightened in recent years by scouting and other activities.

(e) Despite the rise of community schools [the Ismaili School (1907) and the Bohora School (1909)], and the admission till 1923 of a quota of Indian boys to the Government Central School, the school continued and continues to supply the very definite needs of the communities which for various reasons are not able to run schools for themselves.

(f) Before the introduction of a general scheme of grants-in-aid (in 1924), the Madressa, after obtaining unconditional grants from the year 1916, was, by a working agreement made with the Committee, taken under financial and general control by Government.

(g) One of the reasons for this agreement was the desire of Government to implement the policy of the simplification of language difficulties in the curriculum of the Government Central School. The diverting of the Indian pupils who formerly had been admitted to the Central School to the Sir Euan Smith Madressa had the result of making the latter into a quasi-Government school.

(h) The original working agreement, made with the Committee, was incorporated into a more formal agreement with the heirs and representatives of the original subscribers in 1931; and the latter was revised in 1935, with full provision for a lasting constitution of the Committee, and the financial control of the Madressa, including the presentation of estimates annually and the payment by Government of the approved deficit figure or the actual deficit, whichever shall be the lesser.

In amplification of the recommendations made regarding the Sir Euan Smith Madressa, the Sub Committee recommends:—

1. That the elementary section of the Madressa should, as at present, continue to be carried on in a separate building.

2. That a new and more commodious building should be provided, through the efforts of the Committee and the Indian communities generally, for the centralization of Indian middle education to the extent indicated in paragraph 13.

3. That, if the Ismaili community later evinces a desire to join in the scheme of centralization of middle classes, that community should be encouraged to do so, provided it releases a portion of the present Ismaili Boys' School for the accommodation of the extra classes involved.

In making these recommendations the Sub-Committee have taken into consideration the information laid before its members that a site adjacent to the Government Central School and the Ismaili Boys' School has been earmarked by Government for the new Sir Euan Smith Madressa building, that Government is willing to allow the fund called the "Surplus Fund" of the Madressa to be utilized towards the erection of the new building and that practical proposals for the provision of the extra funds required are being considered by the Committee of the Madressa and are likely to receive the approval of the Government.

#### 15 *Indian Education.—Boys (continued).*

The Sub-Committee has taken into consideration that communities as detailed in para 13 (e) (iii) appear to benefit from the Government aid which is given to the Sir Euan Smith Madressa to a greater extent than the communities which run their own community schools benefit from the general scheme of grants, whether as at present or as in the revision which is proposed.

It recommends, therefore, that somewhat higher fees than at present be charged in the elementary classes of the Madressa, and that the money which will thus be released be devoted towards the development of the middle classes of the Madressa.

It further recommends that for the financing of the middle classes a slight rise in fees should be considered so that monies thus set free may be devoted to other schools, including such schools for Africans as may come under the grant system in future.

It further recommends that consideration be given to the continuation, after the new building has been paid off in full, of the lottery scheme in order to build up endowment funds for the Madressa. The interest accruing from such funds would set free further funds for the extension of the grant-in-aid scheme or for general educational purposes.

#### 16. *The Convent School and the Middle Classes for Boys.*

(a) The Sub-Committee has carefully considered the place of the Convent School in the general scheme of education in Zanzibar.

(b) The school correspondent advocated that in the sphere of girls' education this school should be regarded as on a par with the Sir Euan Smith Madressa in the boys' sphere, that is to say (a) that it should be an undenominational school open to girls of all nationalities, and (b) that it should receive grant-in-aid which, together with fees, should equal recurrent expenditure.

(c) Examining the first portion of this contention, the Sub-Committee note that community education for girls is provided in two girls' schools for Hindus (one grant-aided), one girls' school for Ismailis (grant-aided), one school for Bohora girls (grant-aided) and two schools for Ithnasheri girls, one of which has applied for grant-in-aid.

This part of the contention does not, therefore, bear the light of examination, and the Sub-Committee is definitely of opinion that if the Convent School is to continue to receive grant admissions should be limited, so far as the girls are concerned, to Goans, Parsees, Seychellois, and such other girls as may be admitted on special approval by the Director of Education, provided that the admission of these latter girls does not overcrowd the classes; and so far as the boys are concerned, to Goans and Seychellois only.

(d) In considering the second part of the contention, the Sub-Committee perforce bore in mind what is brought out in its discussion of the first part, namely, that the part of this school in the general scheme of education is to cater practically entirely for Goan girls and boys and Parsee girls. The limitation of available funds has already been referred to and there appears to be no justification for according to these schools a much larger grant than is accorded to similar schools for other communities. In a Convent School, however, it is necessary that a large proportion of the staff should be European Sisters. This does not constitute an argument for an increased or special grant for Goan and Parsee education, but in view of the difficulties experienced by the Mission and of the fact that a Convent School is the natural kind of school for Goan children, the Sub-Committee makes a special recommendation [*vide (f) (iii)* of this paragraph].

(e) The Sub-Committee notes the attitude of the Bishop in the question of the curriculum and of external examinations, and would call attention to the salient principle of grant-in-aid which is stated in Section 2 of para 2 of this report. If the Mission does not desire to have Government control it should not ask for grant. Regulations 7, 8, 10, and 13 (c) and (k) should be strictly adhered to.

(f) From the financial point of view it appears to be the case that the Mission is not able to carry on without extra funds. In this regard we would suggest:

(i) That the staff be limited to the numbers required for the purpose of carrying on the following activities:—

A. Convent School with nine classes, Kindergarten, Sub-standards I and II and Standards I to III for boys and girls (six classes); and Standards IV to VI for girls, Standards V and VI to be combined (two classes). Total Staff, 9.

B. Small separate classes for boys: Standards IV to VI (V and VI to be a combined class). Staff, 2.

To these should be added one European relief. Grand Total, 12.

(ii) That not more than five European Sisters plus one relief be engaged.

(iii) That as a special concession grant be calculated on the same basis as in Schedule I of the proposed regulations (i.e., as for local Indian teachers), but in respect of the European staff assumed salaries equal to the maxima of the appropriate grades

be adopted for the calculation. This would work out as under:—

	Rs.
Headmistresses: Salary Rs. 320 p.m. ...	3,840
Assistant Headmistresses: Salary Rs. 270 p.m. ...	3,240
Four mistresses @ 195 = Salary Rs. 780 p.m. ...	9,860
Four lay mistresses if trained or recognized as equivalent to trained at actual salaries in Grade III @ say 90, 80, 75 and 75 = Rs. 320 p.m. ...	3,810
Two lay masters if trained or recognized as equivalent to trained at actual salaries say Rs. 150 each = Rs. 300 p.m. ...	3,600
	23,880
Staff Salary Bill:—Rs.	23,880
Grant @ 33½% = Rs.	7,960

In the case of this school no allowance for passages should be made.

(g) In respect of Regulations 3 and 13 (d) special arrangements could be made in the case of Mission schools to suit the Mission organization.

#### 17. Indian Education—Girls.

Indian education for girls has already been discussed in para 16 (c).

The Sub-Committee recommends that grant-in-aid should be given to such schools as are able to comply with the proposed regulations. There is great difficulty in obtaining trained teachers, and the Schedule (Schedule II) is so constructed as to allow grant for teachers of very low qualifications. The Schedule should be subject to revision every three years.

#### 18. African Education.

If and when applications for grants, in the case of schools which accord with para 2 (3) are made, Schedules should be drawn up with salary grades similar to those contemplated by Government for its future teachers.

Subjects of a vocational nature should be encouraged in the syllabus.

In view of the fact that it is not the policy of Government to provide urban boarding accommodation for Africans, no grants should be paid in respect of boarding.

#### 19. Estimate of Total Salary Grant Liabilities under New Conditions, if 33½% be adopted as the percentage.

(i) List of schools which (a) are already in receipt of grant-in-aid, (b) might apply with the hope of acceptance.

(a) Ismaili Boys'.

Ismaili Girls'.

Bohora Boys' and Girls' Elementary. Girls' Lower Middle.

The St. Joseph's Convent School (with Middle Boys' Classes attached).

The Hindoo Free Girls' School.

(b) The Ithnasheri Girls' School (Lower Middle).—N.B.—This school has applied for grant.

The Aryan Free Girls' School.

St. Paul's School, Kiungani.

Roman Catholic Mission Boys' and Girls' Elementary School for Africans with vocational training classes attached.

(ii) The estimates in columns C. and D. are based on the idea of each school having a full complement of trained teachers as described in the schedules to Appendix A, salaries being taken at (a) minimum (b) third last step on the scales.

Passages are allowed for all Indian teachers, the staff being so fixed as to do away with necessity for reliefs. The headings show:—

- A. Actual grant for 1934.
- B. What the grant would have been in 1934 had the new conditions been in force.
- C. Grant based on minimum of approved scales, supposing all teachers eligible.
- D. Grant based on third step from top of approved scales, supposing all teachers eligible.

(iii) From the table the conclusions are:—

- (i) That if the new proposals had been in force in 1934 grant would have been less than that actually paid in that year.
- (ii) That the grants for the five schools at present in receipt of grant would be liable in course of time to go up to a sum between Rs. 23,600 and Rs. 29,000, and if the two other Indian schools come in, these sums would be increased to Rs. 29,000 and Rs. 36,000 respectively.
- (iii) That Mission urban education might qualify for grants up to Rs. 4,500.

(iv) We are informed that the provision for 1936 for grants-in-aid to Indian schools, apart from the Sir Euan Smith Madressa grant (Rs. 30,000), is Rs. 20,666.

The present proposals would appear to involve (a) in respect of Indian schools at first a decrease in this sum and later a gradual increase, as larger numbers of trained staff are engaged, up to a probable maximum of about Rs. 32,000 or Rs. 33,000 (b) in respect of Mission schools for Africans new grants amounting to about Rs. 4,500. Some of this extra appropriation may be covered by the proposals of para 15.

TABLE.

INDIAN EDUCATION.		Estimate of Salary Bills for Columns C. & D.			A.	B.	C.	D.
Name of School.	Salary Bill including pension.		Passages.	Actual Grant 1934.	Estimate of 1934 on proposed conditions.	Total grant as described in § 19 (ii)		
	Minimum.	High.				Minimum.	High.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1. Ismaili Boys' School ...	15,561	20,161	557	4,496	4,829	5,273	6,906	
2. Ismaili Girls' School ...	9,072	14,175	515	2,589	2,170	3,196	4,897	
3. Bohora School (Boys and Girls) ...	12,474	15,422	491	3,595	2,860	4,325	5,308 <sup>1</sup>	
4. St. Joseph's Convent School (and Boys' Middle Classes)	23,880	23,880	Nil	4,660	5,060	7,960	7,960 <sup>2</sup>	
5. Hindoo Free Girls' School...	7,308	10,770	411	1,209	1,040	2,910	3,730	
6. Aryan Free Girls' School ...	7,308	10,770	411	—	—	2,910	3,730 <sup>3</sup>	
7. Ithnasheri Girls' School ...	7,308	10,770	411	—	—	2,910	3,730 <sup>3</sup>	
				16,549	15,859	29,484	36,261	
AFRICAN URBAN EDUCATION.								
1. St. Paul's School, Kiungani							2,774 <sup>4</sup>	
2. Mixed Elementary Mission School							1,760	
							Rs. 4,534	

Notes:—<sup>1</sup> Presuming middle boys sent to Euan Smith Madressa.

<sup>2</sup> Special Grant as suggested in Report.

<sup>3</sup> Presuming development as Lower Middle Schools.

<sup>4</sup> Figure supplied by Canon Broomfield.



20. In Appendix A the Sub-Committee submit Regulations, modelled partly on the Tanganyika Grant-in-Aid Regulations for Indian schools, and partly on Colonial No. 84.

Appendix B is the Schedule suggested for Indian Girls' Schools.

Appendix D is the Schedule suggested for African Urban Schools.

21. Reverting to para 12. the Sub-Committee's recommendations as to distribution of grant are :—

- (a) The special grant to the Sir Euan Smith Madressa should be continued. It should not exceed Rs. 30,000, but should be reduced if possible by the means suggested in para 15.
- (b) The other funds available for grants, at present about Rs. 20,000, should be distributed, according to the proposed regulations to the schools detailed in paragraph 19. (i), (a) and the Ithnasheri Girls' School.
- (c) The claims of the other schools mentioned in paragraph 19. (i). (b) should be considered as soon as funds are available.
- (d) The percentage of salary grant should not be lower than  $33\frac{1}{3}$ , but should be higher if general finances allow, with appropriate increase of the total appropriation earmarked for grants-in-aid.
- (e) If and when additional funds over and above the present approximate sum of Rs. 50,000 become necessary, it is suggested that the method of obtaining such additional funds, whether by increased grant from central funds, or by special rate or otherwise, should be referred to the Advisory Council for its recommendations.

Wm. HENDRY.

G. W. BROOMFIELD,

A. A. M. LAKHA,

## APPENDIX "A".

**REGULATIONS GOVERNING THE AWARD OF GRANTS-IN-AID TO  
ELEMENTARY AND MIDDLE SCHOOLS IN ZANZIBAR.****1. Provision.**

With the object of encouraging private enterprise in education amongst the various communities in the Protectorate, the Government will set aside a sum of money annually from the Public Revenue for the purpose of providing grants-in-aid for schools under the conditions hereinafter provided.

**2. Advisory Council.**

It will be part of the duties of the Advisory Council on Education to advise the British Resident on policy in matters relating to grants-in-aid when referred to it.

**3. Managing Committee.**

For each assisted school or group of schools there shall be a duly constituted Committee of Management which shall include as a member with or without the right to vote the Headmaster (or Headmistress) of the school.

The Committee shall elect one of their number to act as Secretary, who shall be the sole and responsible correspondent with the Director of Education on all school matters except those connected with the internal management of the school and who shall be responsible for the proper accounting of all monies granted from Government funds.

(N.B.—The internal management of the school shall be as defined in an Education Department Circular drawn up on the advice of the Advisory Council on Education and approved by Government). See Appendix C.

In Mission schools the place of the Managing Committee may be taken by the authority in charge of the Mission and the place of the Secretary by the person deputed by that authority with the responsibilities detailed above.

**4. Assisted Schools.**

The Director of Education shall keep a list of all assisted schools in the Protectorate

**5. Register of Teachers.**

The Director of Education shall keep, or cause to be kept, a register of all teachers employed in any assisted schools in the Protectorate.

**6. Records.**

At every assisted school the following records shall be kept and shall be open to inspection when required by the persons mentioned in Section 11 of these regulations.

(a) Admission register and attendance registers in such form as the Director of Education may require.

(b) Description and rough plan of the school buildings, giving number of rooms, dimensions of rooms, and for each room the maximum approved accommodation.

(c) A log book in which shall be recorded events such as visits of Education Officers and others, receipt of new equipment, instructions in regard to curriculum, absence or illness of any member of the staff, and any special circumstances affecting the school a record of which may be of value for future reference.

No reflections or opinions of a general or personal character shall be entered in the log book.

(d) An inspection book in which the persons mentioned in Section 11 of these regulations may record such remarks as they may wish as a result of inspection.

(e) A visitors' book for the signature and remarks of visitors other than those mentioned in Section 11.

(f) A file to contain education regulations for the time being in force, official education circulars and syllabuses of instruction.

(g) A file to contain official letters, inspection reports and school returns.

(h) A file to contain monthly and terminal schemes of work.

(i) A copy of the time-table of each class, to be kept in a prominent place in the classroom, and a copy of the syllabus of instruction of each class to be readily available.

#### 7. *Transfers.*

In the event of a pupil from a Government or Assisted School seeking admission to another Government or Assisted School, the teacher-in-charge of the former shall, on application from the teacher-in-charge of the latter, issue a leaving certificate in a form approved by the Director of Education.

This certificate shall contain a record of the school career of the pupil.

In the case of a pupil leaving an Assisted School with the intention of leaving the Protectorate to study elsewhere, the Headmaster shall, if so requested, furnish a leaving certificate to the parent or guardian.

#### 8. *Admissions.*

Admissions will normally be confined to the opening three weeks of the school-year.

Any exceptions to this rule must be referred for the approval of the Director of Education.

#### 9. *Attendance.*

Attendance for the purpose of these regulations means attendance at secular instruction.

Separate attendance registers shall be kept for each class, and entries shall be made once per day if the school has morning hours only, twice if morning and afternoon hours.

Pupils who arrive more than 20 minutes late for the first secular lesson shall be marked absent.

To qualify for grant the time devoted to secular instruction must be at least 15 clock hours per week in the Sub-Standard classes and at least 20 clock hours per week in the Standards.

There shall be an interval for recreation during any morning session of at least 15 minutes.

If a pupil fails to complete the full period of attendance at secular classes during any session he shall be marked absent.

In afternoon sessions, the time occupied in teaching shall not exceed 1½ clock hours, except by special approval of the Director of Education.

#### 10. *Subjects of Instruction.*

All instruction in an Assisted School shall be according to a syllabus approved by the Director of Education.

Any subject of a vocational nature may be taught provided that a graduated scheme of instruction be submitted to and approved by the Director of Education.

In Assisted Girls' Schools the syllabus shall include needlework, and where such schools contain middle classes instruction in cookery and in child-welfare shall be provided.

#### 11. *Inspection*

The Director of Education or person authorized by him may at any time enter the school premises for the purpose of inspection, and may record in the inspection book of the school at the time of his inspection such remarks as he may wish to make, or he may send a written report to the Secretary of the school, who shall cause a copy thereof to be inserted in the inspection report file. Remarks of members of the Managing Committee and other visitors should be recorded in the visitors' book and should be confined to comments on attendance, punctuality, truancy, cleanliness, condition of buildings and the like.

Classification of pupils shall be made at the beginning of the school-year by the Headmaster or Headmistress, who shall be guided when circumstances permit by the Director of Education or his representative.

Except with the consent of the Director of Education or his representative, no pupil shall be promoted to a higher class in Standards 3 to 6 unless he has been a full school year in the class from which he is to be promoted, and has proved himself efficient in the standard of that class.

#### 12. *Staff.*

(a) No teacher shall teach in an Assisted School unless registered in the register of teachers as provided in Section 5 of these regulations, provided that this rule shall not apply to teachers specially engaged for the teaching of religion.

(b) No teacher shall be registered unless he or she has been employed under an agreement or letter of appointment approved by the Director of Education.

(c) A teacher to be eligible for registration must be certified by a duly qualified medical officer as being free from any disability likely to detract from his or her efficiency as a teacher, and must either have qualifications such as are described in the schedules to these regulations or have such special qualifications for teaching special subjects as may be approved by the Director of Education.

(d) Registered teachers shall be classified in appropriate grades according to qualifications on the advice of the Advisory Council on Education, and for the purpose of calculation of salary grants scales of salary appropriate to these grades will be fixed from time to time by the Government on the advice of the Advisory Council on Education.

(e) Application for registration shall be addressed to the Director of Education by the Secretary of the Managing Committee, and shall be in such form as the Director of Education may require.

(f) Notice of resignation of any teacher shall be sent without delay by the Secretary to the Director of Education.

(g) No teacher who has resigned or been dismissed from a Government or Assisted School shall be engaged by any Government or Assisted School without the approval previously obtained in writing of the Director of Education.

#### 13. *Grants-in-Aid: Conditions.*

A school may, by the approval of the British Resident, be placed on the list of Assisted Schools entitled to receive grant-in-aid if the Director of Education is satisfied that the following conditions have been fulfilled, provided that the British Resident, on the advice of the Advisory Council on Education, may modify or waive any of these conditions.

(a) That the school is not conducted for private profit.

(b) That the school provides, or shows promise of providing within a stated period, at least a full elementary course.

(c) That the school admits and caters for the educational needs of pupils who are not in the opinion of the Advisory Council on Education adequately provided for in the same locality by other schools, and that admissions are limited to such pupils as the Advisory Council on Education may in each case advise.

(d) That the Managing Committee shall have the power, subject to the approval of the Director of Education to appoint and to dismiss the teachers.

(e) That no pupil, except in schools in which admission is limited to pupils of a single religious community, shall be compelled to attend at periods of religious instruction except with the written consent of the parent or guardian.

(f) That the Director of Education or person authorized by him, and members of the Advisory Council on Education shall have the right of entering into any classroom in which secular education is in progress, but shall not, except with the consent of the Headmaster or Headmistress, enter any classroom at other times.

(g) That the school buildings are maintained in a satisfactory state of repair and in good sanitary condition.

(h) That sufficient and suitable furniture and apparatus for the instruction of the pupils is provided.

(i) That the requirements of the Director of Education as regards the construction or use of the buildings, floor space, lighting, ventilation and sanitation are fulfilled and that space and arrangements for games and recreation are adequate.

(j) That the numerical strength of the staff is at least equal to the minimum laid down in the Schedule applicable to each school.

(k) That the income of the school including any Government grant shall be used exclusively for the purpose of education in that school.

(l) That records of admission and attendance are duly and accurately kept under the supervision of the Headmaster or Headmistress in accordance with the requirement of Sections 6 and 7.

(m) That all returns called for by the Director of Education are submitted as required.

(n) That no teacher is permitted to undertake any duties unconnected with his school work which can in any way interfere with the internal or external activities of the school.

(o) That the Director of Education, with the advice of the Advisory Council on Education, may forbid the use in any Assisted School of any text-book or other material intended for secular instruction which in his opinion is unsuitable by reason of inferior academic standard, provided that the British Resident may by order in writing prohibit the use of any book or material in any school.

(p) That the system of discipline in force, hours of instruction and recreation, and school holidays must conform to Government educational requirements as intimated by the Director of Education.

(q) That the School Medical Officer shall have the right to visit the school at any time during school hours.

Medical inspection of the pupils may be carried out at the discretion of the School Medical Officer, and the Managers will keep such records as he directs.

All pupils must be vaccinated or re-vaccinated, if so required by the School Medical Officer. Pupils who fail to satisfy the School Medical Officer in this respect may be excluded from the school.

(r) That a school may with the approval of the British Resident be deleted, on notice of one year having been given in writing, from the list of schools entitled to receive grant-in-aid if any one of the above conditions ceases to be fulfilled.

#### 14. *Provident Schemes.*

All grant-aided schools must within five years of commencing to receive grant-in-aid under these regulations frame and adopt a satisfactory pension or provident scheme for their staffs. Such schemes must be submitted to the Director of Education for the approval of the Government.

#### 15 *Grants-in-Aid: Method of Payment.*

Grants will become due and will be paid on the authority of the Director of Education as follows:—

- (a) Salary grants. In arrear as soon after the end of the quarter for which they are due as may be practicable.
- (b) Building and equipment grants at any time subject to the fulfilment of the conditions prescribed by these regulations.

#### 16. *Salary Grant.*

(a) The salary grant payable by Government shall be a percentage, fixed from time to time by Government to extend unchanged over a period of three years, of the total salary bill of teachers of secular subjects who are

eligible for grant, such salary bill to be calculated in the way laid down in the schedule appropriate to each particular class of school.

If any change in the percentage is contemplated by Government notice will be given at least one year before the end of each triennial period.

(b) The percentage may differ for different types of schools.

(c) In order to qualify for salary grant the minimum staff requirements detailed in the schedules must be fulfilled.

(d) Salary grant shall not be paid in respect of the teaching of religion.

(e) In cases in which a teacher is employed partly in religious and partly in secular teaching, the salary grant to be paid in respect of the latter will be in the ratio of the total of hours spent in secular teaching to the total of teaching hours on the weekly time-table of the teacher, provided that when religious instruction is confined to one teaching period per day a teacher will be regarded for the purpose of salary grant as a full-time secular teacher, unless employed specifically as a part-time teacher.

#### 17 *Fees and their Relation to Salary Grants:*

In schools in which fees are charged, the fees shall be at rates approved by the Government.

#### 18. *Building and Equipment Grants.*

##### (a) *Equipment Grants.*

A grant in respect of equipment not exceeding half the amount spent on equipment may be paid to any Aided School provided that:

- (i) The total grant does not exceed £2 per pupil provided for or £200 in all.
- (ii) The list of equipment proposed is submitted to the Director of Education for the approval of Government on or before the 31st of May in the year prior to that in which the equipment is to be provided.
- (iii) Satisfactory security is given that the grant will be refunded if the school ceases to exist within three years of the payment of such grant.

##### (b) *Building Grants.*

Grants for new buildings or for extensions or alterations to existing buildings may be paid, subject to funds being available provided that:

- (i) The Government is satisfied that the school is required.
- (ii) The Government is satisfied that the school either is or is likely to become an Aided School.
- (iii) That prior to any building extension or alterations plans shall have been approved by the appropriate authorities.
- (iv) That specifications of the proposed programme of building or alterations are submitted to and approved by Government before the 31st of May in the year prior to that in which the building is to be completed.
- (v) That satisfactory security is given to complete the buildings or alterations in accordance with the specifications and within a stated time, and that the buildings shall not be used for other than educational purposes without the prior authority obtained in writing of the Director of Education and that the school will be conducted in accordance with these regulations.
- (vi) That in the event of failure to comply with any of these conditions the whole of the grant or such portion as the British Resident may deem equitable shall be repaid to Government.
- (vii) That the grant shall be paid on presentation of a certificate that the buildings have been completed, and that the grant with the money in hand will meet all claims. Provided:--
  - (a) that it shall be at the discretion of the British Resident to sanction the payment in advance of a sum not exceeding three-fifths of the maximum amount of the grant

which will be due under this regulation in respect of any part of the building which may have been completed at any particular time, and the value of which has been certified by an Engineer of the Public Works Department; and

- (b) that the British Resident may require a certificate by an Engineer of the Public Works Department to the effect that the building has been completed in accordance with the specifications before authorizing the final payment.
- (viii) That in estimating the total cost of any building for the purpose of a grant under this regulation, no allowance shall be made for the labour or services of any person in respect of whom a grant is paid or payable under any other of these regulations.

## SCHEDULE I.

### REGULATIONS FOR REGISTRATION OF TEACHERS AND FOR CALCULATION OF SALARY GRANTS.

#### Schools for Indian Boys.

*Note*:—In cases in which both men and women teachers are employed in the same school, Schedules I and II will be applicable *pro rata*.

#### RECOGNIZED QUALIFICATIONS AND GRADES OF REGISTRATION.

1. The recognized qualifications and corresponding grades of registration are:—

Grade I: Graduate with recognized training certificate.

Grade II: Non-graduate, with recognized training certificate, provided that such non-graduate has completed two years of study at a recognized institution of University standard.

Grade III: Certificate of three years' training as a vernacular teacher.

#### RECOGNIZED SCALES OF SALARY.

2. Grade I: Rs. 195 × 15 to 270.

Grade II: Rs. 100 × 5 to 145, with possible rises thereafter at three-yearly intervals by Rs. 10 to Rs. 195.

Grade III: Rs. 75 × 3 to 100, with possible rises thereafter at three-yearly intervals by Rs. 4 to Rs. 120.

Headmasters of full Middle Schools to have possible rises above Rs. 270 of Rs. 15 to Rs. 320, provided they are trained graduates.

In addition to the above, salaries for teachers of special subjects may be recognized by the Director of Education for the purpose of grant calculation.

3. *Equivalences.*

At his discretion and in accordance with the following table of equivalence, the Director of Education may register either permanently or temporarily teachers whose qualifications and experience appear to him to justify such registration. In cases in which such teachers are registered temporarily, the conditions under which such registration may be made permanent shall be communicated by letter to each teacher and to the Secretary. If the conditions imposed are fulfilled the teacher will be registered permanently

#### *Equivalence Table.*

Grade 1.—Graduate, untrained, with teaching experience of at least five years, whose teaching is recognized as equivalent to that of a good trained teacher by the Director as the result of inspection reports and Headmasters' reports.

Grade 2. Graduate, untrained, whose teaching is regarded as satisfactory by the Director as the result of inspection reports and Headmasters' reports.

Untrained non-graduate (as defined in Section 1) whose teaching is recognized as equivalent to that of a good trained teacher by the Director as the result of inspection reports and Headmasters' reports.

Locally trained Teachers' Training School men appointed previous to 1934, after they have reached Rs. 100 on the scale to which they were originally appointed, provided they are reported to be satisfactory teachers.

Grade 3.—One or two-year trained Gujarati teachers, whose teaching is recognized as satisfactory by the Director as the result of inspection reports and Headmasters' reports.

Teachers appointed previous to 1935 who are not included in any of the above categories may be allotted to Grades at the discretion of the Director after due enquiry.

#### REGISTRATION OF TEACHERS.

4. Registration of teachers shall be of the following classes:—

Class A: Permanent registration of teachers fully qualified as in Section 1.

Class B: Permanent registration of teachers qualified according to the equivalence table in Section 3.  
Permanent registration of teachers of special subjects.

Class C: Temporary registration of teachers qualified according to the equivalence table of Section 3.  
Temporary registration of teachers of special subjects.

Class D: Temporary registration of teachers whose qualifications are not adjudged by the Director of Education to justify registration under A, B, or C.

Temporary registration shall be for a period not exceeding five years and shall not be renewable.

#### SALARY GRANTS: REGULATIONS AND METHOD OF CALCULATION.

5. (i) Salary grants shall be payable only in respect of teachers registered in the A, B, and C classes.

(ii) Managing Committees shall be free to fix the salary or salary scale of each member of their staff with reference to the needs and circumstances of the holder of the post and to make such financial arrangements for their staff as may be consistent with their method of recruitment, provided that the conditions of general regulations 12, 13 and 14 are complied with.

(iii) For the purposes of calculation, teachers registered in the A, B, and C classes shall be regarded as being in receipt of salaries on the scales corresponding to their grades of registration. If the actual salary falls within the appropriate scale, it will be included in the total of staff expenditure subject to grant. If the actual salary falls below the appropriate scale, salary at the minimum of the scale will be included. If the actual salary is greater than the maximum of the scale, salary at the maximum of the scale shall be included.

(iv) Contributions paid by the Managing Committee, in respect of teachers registered in the A, B, and C classes, to an approved pension or provident scheme will be included in the total staff expenditure subject to grant.

(v) Expenditure on board, lodging, clothing, passages in approved cases, and medical attendance of members of staff registered in the A, B, and C classes, where such expenditure is provided free of charge by the Managing Committee in addition to or in lieu of salaries, may be included in the total of staff expenditure subject to grant, provided such perquisites form part of the staff agreement [General Reg. No. 12 (b)] approved by the Director of Education, or are separately agreed to by him.

(vi) Bonuses and special allowances paid to teachers with the prior approval of the Director shall be included in the total of staff expenditure subject to grant.



(vii) The payment of salary grants shall be subject to the following provisos:—

(a) That the Government is satisfied that all the grant paid as above is being devoted to educational purposes.

(b) That the Government reserves the right to reduce the grant in respect of the salaries of other than full-time teachers of secular subjects.

(c) That the Government reserves the right to refuse or reduce or withdraw the grant in respect of staff which, in the opinion of the Director of Education, are in excess of the requirements of the school.

(d) That the Government reserves the right to withdraw the grant altogether, on notice of one year being given in writing, if the qualifications of the staff as a whole are not such as to justify the continuation of the inclusion of the school in the grant-in-aid system.

(e) That, if the Managing Committee is unable within a reasonable period to be specified by the Director of Education, to supply a teacher possessing the necessary qualifications for a vacant post, the Director may require the Managing Committee to endeavour to fill the post by offering a salary not less than the minimum of the scale recognized for the post.

(f) That the Government reserves the right to withdraw the grant altogether, on written notice of six months, if the minimum staffing requirements of Section 6 of this Schedule are not fulfilled.

**MINIMUM STAFF OF TEACHERS REQUIRED UNDER GENERAL REG. No. 16.**

6. (i) For a full Elementary School (Sub-Standards I and II and Standards I and II), four teachers of whom at least three must be registered in classes A, B, or C and have qualifications of or equivalent to Grade III.

(ii) For a full Middle School, ten teachers.

Of the ten teachers five will be regarded as elementary school teachers, and of these at least three must be registered in classes A, B, or C and have qualifications of or equivalent to Grade III; and five will be regarded as middle school teachers, and of these three must be registered as having qualifications at least equivalent to Grade II and two must be registered as having qualifications at least equivalent to Grade I.

(iii) For schools intermediate between full Elementary and Middle, and for schools in which one or more of the classes are duplicated or amalgamated, the minimum staff required by Government shall be as prescribed by the Director of Education, who shall prescribe such minimum staff and registration and qualification requirements in approximate proportion to the requirements laid down in Sub-Sections (i) and (ii) above.

(iv) In schools in which teachers are employed solely for the purpose of religious instruction, the numbers of teachers above specified may be reduced at the discretion of the Director of Education, provided that he must be satisfied that adequate provision is made for the teaching of secular subjects.

## APPENDIX B.

## SCHEDULE II.

**Schools for Indian Girls.**

*Note*:—In cases in which both men and women teachers are employed in the same school. Schedules I and II will be applicable *pro rata*.

**RECOGNIZED QUALIFICATIONS AND GRADES OF REGISTRATION.**

1. The recognized qualifications and corresponding grades of registration are:—

Grade I: Graduate with approved training certificate.

Grade II: Three-year trained vernacular Teacher.

Grade III: One or two-year trained vernacular Teacher.

**RECOGNIZED SCALES OF SALARY (INTERIM).**

2. Grade I: Rs. 150 × 10 – 200 × 10 – 250.

Grade II: Range of Rs. 60 to 100.

Grade III: Range of Rs. 40 to 60.

Headmistresses of full Middle Schools to have possible rises to Rs. 300 provided they are trained graduates.

Headmistresses of full Elementary Schools if in Grade II to have possible rises to Rs. 150.

In addition to the above, salaries for teachers of special subjects may be recognized by the Director of Education for the purpose of grant calculation.

*Equivalences.*

3. At his discretion and in accordance with the following table of equivalence, the Director of Education may register either permanently or temporarily teachers whose qualifications and experience appear to him to justify such registration. In cases in which such teachers are registered temporarily, the conditions under which such registration may be made permanent shall be communicated by letter to each teacher and to the Secretary. If the conditions imposed are fulfilled the teacher will be registered permanently.

*Equivalence Table.*

Grade 1.—Graduate, untrained, with teaching experience of at least five years, whose teaching is recognized as equivalent to that of a good trained teacher by the Director as the result of inspection reports and Headmistresses' reports.

Grade 2.—One or two-year trained Gujarati teachers, whose teaching is recognized as satisfactory by the Director as the result of inspection reports and Headmistresses' reports.

Untrained Teachers of at least five years' experience who have had special local training under a scheme approved by the Director of Education, and whose teaching is recognized as equivalent to that of a three-year trained teacher by the Director of Education as a result of inspection reports and Headmistresses' reports.

Grade 3.—Untrained teachers whose teaching is recognized as satisfactory by the Director as a result of inspection reports and Headmistresses' reports.

Teachers appointed previous to 1935 who are not included in any of the above categories may be allotted to grades at the discretion of the Director after due enquiry.

**REGISTRATION OF TEACHERS.**

4. Registration of teachers shall be of the following Classes:—

Class A: Permanent registration of teachers fully qualified as in Section 1.

Class B: Permanent registration of teachers qualified according to the equivalence table in Section 3 of this schedule.  
Permanent registration of teachers of special subjects.

Class C: Temporary registration of teachers qualified according to the equivalence table in Section 3.  
Temporary registration of teachers of special subjects.

Class D: Temporary registration of teachers not qualified as in A, B or C above, and of teachers of special subjects.

Temporary registration shall be for a period not exceeding five years, and shall not be renewable except in the case of teachers of special subjects.

N.B.—Special subjects for the purpose of this section shall be needle-work, cookery and child-welfare and such other subjects as may be approved in special cases by the Director of Education.

5. As in Schedule I.

6. As in Schedule I.

## APPENDIX C.

## INTERNAL CONDUCT.

## (Headmaster's Functions).

1. Time-tables.
2. Organization of classes including examinations and promotions.
3. Methods of applying syllabus.
4. Minor discipline of staff.
5. Discipline of pupils. (Headmaster should refer cases in which dismissal is required to the Committee. Cases in which Committee and Headmaster disagree should be referred to Director of Education for decision).
6. Methods of teaching.
7. Disposition of staff.
8. Admission of pupils.

In above matters the Director of Education reserves the right to approve or refuse, but will not interfere unless it is unavoidable.

## FUNCTIONS OF MANAGING COMMITTEE.

## Functions.

- (a) Engagement and dismissal of teachers. (Subject to approval of Director of Education).
- (b) Provision and maintenance of buildings.
- (c) Provision and maintenance of equipment.
- (d) Preparation of School Calendar for submission to Director of Education.
- (e) *Syllabus and Text-books.*  
Where these are not definitely prescribed by the Education Department, the Managers may frame syllabuses and prepare lists of text-books for the consideration and approval of the Director of Education.
- (f) Discipline of staff limited to serious action such as fines and dismissal. No action to be taken by Committee except on application of Headmaster, or appeal against Headmaster by member of staff.
- (g) Arrangements for medical attendance. (Subject to Grant-in-Aid conditions).
- (h) School finance. (Ordering of stores, payment of salaries, keeping of accounts, etc.)

## APPENDIX D.

## SUGGESTED SCHEDULE III.

## Urban Schools for Africans, Male.

*Note*:—For a full Middle School the sum of £300, and for a full Elementary School the sum of £200 may be included in the total of the salary bill in respect of full-time European headmastership, provided the qualifications of such headmaster are accepted by the Director of Education as sufficient.

## RECOGNIZED QUALIFICATIONS AND GRADES OF REGISTRATION OF AFRICAN TEACHERS.

1. Grade I: Teacher with certificate equivalent to Grade I in Tanganyika Territory, viz. Education to Standard VIII plus two years' training course.
- Grade II: Teacher with certificate equivalent to Grade II in Tanganyika Territory, viz. Education to Standard IV plus two years' training course.

## RECOGNIZED SCALES OF SALARY.

2. Grade I: Shs.  $70 \times 2 - 120$ .
- Grade II: Shs.  $60 \times 2 - 90$ .

*Equivalences.*

3. At his discretion and in accordance with the following table of equivalence, the Director of Education may register either permanently or temporarily teachers whose qualifications and experience appear to him to justify such registration. In cases in which such teachers are registered temporarily, the conditions under which such registration may be made permanent shall be communicated by letter to each teacher and to the Secretary. If the conditions imposed are fulfilled the teacher will be registered permanently.

*Equivalence Table.*

Grade 1.—Experienced teachers whose teaching is recognized by the Director of Education as a result of inspection reports and headmasters' reports to be equivalent to that of a trained Grade I teacher.

Grade 2.—Experienced teachers whose teaching is recognized by the Director of Education as a result of inspection reports and headmasters' reports to be equivalent to that of a trained Grade II teacher.

## REGISTRATION OF TEACHERS.

4. As in Schedule I.

## SALARY GRANTS: REGULATIONS AND METHOD OF CALCULATION.

5. (i) Salary grants, with the exception described in the note at the head of this Schedule, will be payable only in respect of teachers registered in the A, B and C classes.

(ii) to (vii). As in Schedule I.

6. As in Schedule I.

CONFIDENTIAL.

## REPORT

BY

— Mr. K. P. S. MENON, I.C.S.,  
on the effect of the recent legislation passed  
by the Government of Zanzibar  
on Indian interests.

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Grade 1.—Experienced teachers whose teaching is recognized by the Director of Education as a result of inspection reports and headmasters' reports to be equivalent to that of a trained Grade I teacher.

Grade 2.—Experienced teachers whose teaching is recognized by the Director of Education as a result of inspection reports and headmasters' reports to be equivalent to that of a trained Grade II teacher.

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6. As in Schedule I.

**CONFIDENTIAL.**

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# REPORT

BY

Mr. K. P. S. MENON, I.C.S.,  
on the effect of the recent legislation passed  
by the Government of Zanzibar  
on Indian interests.



**CONFIDENTIAL**

FROM

K. P. S. MENON, Esq., I.C.S.,

TO

THE SECRETARY TO THE GOVERNMENT OF INDIA,  
*Department of Education, Health and Lands.*

*Zanzibar, the 10th September 1934.*

*Report on the effect of the recent legislation passed by the Government of  
Zanzibar on Indian interests.*

SIR,

With reference to your letter no. F. 206-1|34-L. & O., dated the 6th August 1934, I have the honour to enclose my Report on the subject mentioned above.

I have the honour to be,

SIR,

Your most obedient servant,

K. P. S. MENON.

## TABLE OF CONTENTS.

### I.—INTRODUCTORY.

	PARAS.
actions and Itinerary .. .. .	1
population, etc. .. .. .	2
legislation was introduced .. .. .	3

### II.—THE LAND ALIENATION DECREE.

Land and Alienation Decree : its provisions .. .. .	4
criticisms .. .. .	5
Decree racial ? .. .. .	6
Alienation Act, an economic measure .. .. .	7
Government's sanction .. .. .	8
Decree retrospective ? .. .. .	9
Proposed amendment to section 20 .. .. .	10
Position of Indian landowners .. .. .	11
Effect of the Decree on past transactions .. .. .	12
Gifts and " fictitious sales " .. .. .	13
Gifts by Arabs and Africans .. .. .	14

### III.—THE MONEYLENDERS' DECREE.

Moneylenders' (Amendment) Decree, 1934 .. .. .	15—16
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### IV.—CLOVE LEGISLATION.

The Clove Growers' Association Decree : its provisions .. .. .	17
Clove Exporters' Decree : its provisions .. .. .	18
The Agricultural Produce Export Decree : its provisions .. .. .	19
The Adulteration of Produce Decree : its provisions .. .. .	20
Comments on the Agricultural Produce Export Decree and Adulteration of Produce Decree .. .. .	21
Two objectionable Decrees .. .. .	22
" The Clove Growers' Association "—a misnomer .. .. .	23
The History of the Clove Growers' Association .. .. .	24
Objects of the Clove Growers' Association .. .. .	25
The Clove Growers' Association <i>versus</i> Indian traders .. .. .	26
Disregard of the views of Mr. Strickland and Sir Alan Pim .. .. .	27
Government's reasons for clove legislation .. .. .	28
Indian merchants' alleged responsibility for fall in prices .. .. .	29
Relation between production and prices .. .. .	30
Proposed stabilization of prices .. .. .	31
Sir Alan Pim's suggestion for regulating the market .. .. .	32
Co-operation with Indian exporters not attempted .. .. .	33
" Middlemen's charges " .. .. .	34
Elimination of middlemen .. .. .	35
Resentment of Indians .. .. .	36

### V.—CONCLUSION.

Historical importance of the Indian community in Zanzibar .. .. .	37
Summary of recommendations .. .. .	38
Acknowledgments .. .. .	39

## I.—INTRODUCTORY.

*Instructions and Itinerary.*—I was instructed by the Government of India in their letter no. F. 206-1|34-L. & O., dated the 6th August 1934, to proceed to Zanzibar and enquire into and report upon the effect on Indian interests of the following Decrees passed by the Zanzibar Government :—

- (1) The Alienation of Land (Restriction and Evidence) Decree, 1934.
- (2) The Moneylenders' (Amendment) Decree, 1934.
- (3) The Clove Growers' Association Decree, 1934.
- (4) The Clove Exporters' Decree, 1934.
- (5) The Adulteration of Produce Decree, 1934.
- (6) The Agricultural Produce Export Decree, 1934.

Having received instructions, I left Simla on the 6th August. At Bombay I met the Committee of the Imperial Citizenship Association. I sailed from Bombay on the 8th August. I halted at Mombasa on the 18th and 19th August, and, thanks to the Hon'ble Mr. J. B. Pandya, I was able to meet many of the leading Indians there and Sir Joseph Byrne, the Governor of Kenya. I reached Zanzibar on the 20th August and stayed at the Residency for just over a week. Thereafter I stayed in quarters placed at my disposal by the Indian National Association. I also spent three days in the Island of Pemba included in the Zanzibar Protectorate. I left for Dar-es-Salaam on the 10th September. A more detailed diary is given in Appendix I.

2. *Area, population, etc.*—It is necessary to note the following facts and figures in order to appreciate the situation in Zanzibar. The Zanzibar Protectorate comprises the Islands of Zanzibar and Pemba. Zanzibar has an area of 640 square miles and Pemba 380 square miles. According to the Census of 1931 the total population was 235,428, of whom 186,471 were Africans. Arabs numbered 33,396 and British Indians 14,242. The overwhelming majority of Indians are permanent settlers, born and brought up in the Island; and many of them have lost touch with India altogether. Europeans number but 278. The exportable agricultural produce consists almost entirely of cloves and cocoanuts. Zanzibar produces over 80 per cent. of the world's supply of cloves. There is an Executive Council, presided over by His Highness the Sultan and consisting of His Excellency the British Resident and 6 other officials. There is also a Legislative Council consisting of 15 members, of whom 9 are officials. There are 3 Arab members, 2 Indian members and 1 un-official European member. The two Indian members are Mr. Khimji Khatau Sualy, M.B.E. and Mr. Tayabali. H. A. Karimjee. When the legislation under consideration was passed, however, Mr. Ahmad A. M. Lakha, who is now President of the Indian National Association, was member in place of Mr. Karimjee.

3. *How legislation was introduced.*—When I arrived in Zanzibar I found the Indian community in a state of panic. This was at least partly due to the manner in which the legislation was carried out. On the 16th June 1934 the Bills were published for general information; by the end of the month they were no longer Bills: they had, despite vehement opposition, become Decrees. Both the Indian members of the Legislative Council commented on the precipitancy which characterized the passage of this legislation. "The Government", said the Hon'ble Mr. Ahmad A. M. Lakha in the Legislative Council, "had a couple of years to think it over and did not allow the public more than 12 days to consider them." "No hint", said the Hon'ble Mr. Khimji Khatau Sualy, "was given to the un-official members that such legislation was contemplated." Even the un-official European representative complained of the Government "having put forward this legislation and rushing it through without having given any of the un-official members of Council or members of the Indian community an opportunity of putting forward their views and without even asking for their assistance and co-operation in solving this very serious problem." Indians in Zanzibar have just grounds for the complaint that the legislation was sprung upon them and that they were practically confronted with a *fait accompli*. Within less than a fortnight they found themselves within the coils of a multiplicity of Decrees restricting their rights, their present activities and their future prospects.

## II.—THE LAND ALIENATION DECREE.

4. *The Land Alienation Decree : its provisions.*—The panic among the Indian community was also due to what the Attorney-General himself called the “drastic” and “almost revolutionary” character of the legislation. These epithets were applied by him to the Alienation of Land Decree. In my opinion they are even more applicable to the regulation regarding the clove industry. I will, however, take the Land Alienation Decree first. Its main provisions may be summarized as follows :—

It provides that every transaction (other than a lease of land for a year or less) affecting the land of an Arab or an African shall be by a registered instrument (clause 3). The alienation of land belonging to an Arab or an African to a person who is not an Arab or an African will be of no effect unless it is sanctioned by the British Resident (clause 4). By clause 6 the forms in which an Arab or an African may mortgage his land are restricted to three :—

- (a) a usufructuary mortgage with possession given to the mortgagee for a term not exceeding 20 years after which the mortgage debt is extinguished and the property returns to its owner ;
- (b) a mortgage without possession with a condition that, on the mortgagor's failure to observe the terms of the mortgage, the mortgagee may apply to an authorized officer to be put in possession on such terms as to the period of possession (provided that it does not exceed 20 years) and the amount of principal and interest as the authorized officer deems fit ; and
- (c) in any other form approved by the British Resident. Under a usufructuary mortgage the mortgagor does not bind himself personally to repay the mortgage money (clause 7). The period for which an Arab or an African may lease his land is limited to 20 years (clause 9). If the value of the property does not exceed Rs. 1,500, there is no appeal from the decision of an authorized officer (clause 13), nor are legal practitioners entitled to appear (clause 14). The registration of any document which contravenes the provisions of this Decree is prohibited (clause 17). In the case of what may be called “fictitious sales” oral evidence may be tendered to vary the forms of the document and to show the real nature of the transaction (clause 18). A moratorium is provided for for a period of one year during which no decree or order of a Court for the sale of the land of an Arab or African can be executed (clause 19).

5. *Indian criticisms.*—The main objections of the Indian community may be summarized as follows :—

Over 80 per cent. of the Indians in Zanzibar are permanent residents, many having been born of parents settled in Zanzibar for generations and are Zanzibarians in every sense of the word. They have therefore as much right to acquire land as Arabs and Africans. There is no necessity for this legislation ; and the statement of Government that land has been passing out of the hands of Arabs and Africans at an alarming rate is not borne out by the facts. Such legislation imports that racial virus into this Island from which it has been happily free. The Decree is retrospective in its effect and seriously affects vested interests. Indians have invested no less than eight million rupees in land ; and if they are to be prohibited from bidding for and purchasing the properties mortgaged to them the properties will fetch next to nothing and Indians will lose a considerable portion of their capital. The proviso that the Resident may sanction alienation to non-Arabs and non-Africans is illusory. The burden of agricultural indebtedness is not so heavy as has been made out ; and there is no justification for a moratorium.

6. *Is the Decree racial ?*—I cannot help thinking that the criticisms of the Indian community rest, to some extent, on a basic misconception. Unfortunately the wording of the most vital section of the Decree, namely section 4, lends colour to the impression of the Indian community that it is a racial measure. It draws a distinction not, as the Punjab Land Alienation Act does, between agricultural classes and non-agricultural classes, but between Arabs and Africans on the one hand and persons who are not Arabs or Africans on the other. With the exception of a handful of Europeans, the latter are almost exclusively Indians. In Zanzibar abortive suggestions have been made from time to time for the

restriction of the alienation of land, but the distinction suggested has always been between agriculturists and non-agriculturists and not between the different races. For instance, the report of the Commission of Agriculture, 1923, recommended a Land Alienation Decree which "will define 'agricultural classes' and will prevent land passing (without the special consent of the Resident) to the hands of a non-agricultural class". Again, in 1933 the "Report on the Indebtedness of the Agricultural Classes" recommended that "agricultural property may be rendered inalienable to non-agriculturists, and not liable to attachment and sale for debt." As the Decree stands, however, Indians can legitimately complain, as they have done in a memorandum presented to me, that "an Arab coming from Muscat or elsewhere, however recent may be his arrival in the Protectorate and however ignorant he may be of agriculture, is allowed to buy and sell land belonging to any one, but an Indian settled in the country for generations and thoroughly well conversant with the art of agriculture is prohibited from acquiring Arabs' and Africans' land outside towns even for residential purposes without the sanction of the British Resident." There are plantations in Zanzibar, some of which it was a pleasure to visit, which are excellently managed by Indians. Indeed, in the past, the Sultans of Zanzibar appear to have encouraged some Indians to settle down as agriculturists in his territory by offering concessions in the shape of remission or reduction of duty. I met one of them in Pemba, an octogenarian who told me that the last occasion on which he was in India was when he underwent the ceremony of circumcision!

7. *Land Alienation Act: an economic measure.*—Despite the wording of section 4, however, and certain remarks of the Attorney-General in the Legislative Council regarding the "political necessity" for this Decree, I am satisfied that its object is primarily economic. The intention is to relieve the indebtedness of agriculturists and to prevent mortgages which may lead to their expropriation. India cannot logically object to such legislation, as the Alienation of Land Decree in Zanzibar is modelled on the Punjab Land Alienation Act; and many of its sections are taken word for word from the latter. In two respects, however, Indian interests have to be safeguarded. Firstly, the Decree should not act as a bar to the acquisition of land by *bona fide* Indian agriculturists; and secondly it should not have retrospective effect such as will occasion loss to Indians who have already invested considerable sums of money in existing mortgages.

8. *Resident's sanction.*—As regards the first point mentioned above, it may be noticed that under section 4 (2) of the Decree the British Resident is competent to give sanction to the alienation of an Arab's or African's land to a person who is neither an Arab nor an African. In the course of the debate on the Alienation of Land Bill in the Legislative Council, the Attorney-General gave an assurance that the provision with regard to the Resident's sanction "is not meant to be a dead letter". "It is a sanction" he said "which will be given in proper cases". This somewhat vague assurance was amplified by the Resident himself in the course of an important statement which he made in the Legislative Council on the 28th June 1934. "The Government", said the Resident, "is aware that there are many instances in the Protectorate of good estate management by persons other than Arabs or Africans; and I would here state that it is not the desire or intention of the Government to prevent suitable persons of other nationalities who are likely to develop estates in a proper manner from obtaining landed property in the Protectorate. Further I have the authority of the Secretary of State for giving a public assurance that the Decree will not be applied in such a manner as to afford artificial protection to inefficient landlords or to prevent estates from passing out of the hands of persons who cannot or will not maintain them in a proper manner". And, as if to demonstrate that these were no empty words, the Government, in notifying the sale of certain Government clove plantations on the 24th August 1934, announced that "the right of purchase will be open to persons irrespective of race who satisfy the Government that they are able and prepared to maintain and develop the property in a husbandly manner". So far as Mr. McElderry, the Acting Resident, himself is concerned, Indians are satisfied that his power of sanction will not be refused in proper cases. Indeed, one of the most pleasing features which I observed during my visit to Zanzibar was that His Excellency commands to an almost unique extent the esteem and confidence of all communities. Indians in Zanzibar, however, appear to have suffered in the past from the less sympathetic attitude of other administrators; and they feel that owing

to linguistic and other difficulties the average District Officer, whose recommendation will necessarily be the basis of the Resident's sanction, comes less into contact with them than with Arabs and Swahilis and are therefore less disposed to appreciate their point of view. They therefore demand that section 4 (2) of the Decree should be so amended as to make it obligatory on the part of the Resident to accord his sanction to the alienation of land to those Indians who are able and prepared to develop it "in a husbandly manner". I have little doubt that this suggestion will receive consideration at the hands of the Commission which has been appointed to consider measures for the relief of indebtedness.

9. *Is the Decree retrospective?*—It was repeatedly affirmed by Government in the course of the debates in the Legislative Council that the Land Alienation Decree does not affect existing debts. "This Bill", said the Attorney-General, "does not touch upon the present indebtedness of landowners." "I reiterate", said the Attorney-General while replying to criticisms on the Bill, "that the vested rights of persons are not taken away by this Bill . . . . . This Bill is in essence no more than a delaying measure so far as indebtedness is concerned". The Resident himself stated in the Legislative Council that "the Bill provides no solution for the difficult problem of what should be done about outstanding debts". He has therefore appointed a Commission of which the Chief Justice of Zanzibar is the Chairman and on which the Indian community is represented by Mr. Tayabali, Bar.-at-Law, "to inquire into and report upon the problem of agricultural indebtedness in the Protectorate; and having due regard to the interests of creditors to make recommendations for the relief of debtors where such relief appears necessary on grounds of public policy."

10. *Proposed amendment to section 20.*—It may be noted, however, that despite the soothing assurances quoted above the Decree, as it stands, does make encroachments on vested rights. This, indeed, is the most disquieting feature of the Decree. Section 20, it is true, exempts past transactions (except in two respects referred to in paragraph 13 of this report) from the scope of this Decree. But since section 4 generally prevents Indians from bidding for or buying the mortgaged property, except with the Resident's sanction, the Decree will affect past transactions to an appreciable extent, as explained in greater detail in paragraph 12 below. That is the reason which led the Hon'ble Mr. Khimji Khatau Sualy to suggest that section 20 be amended by inserting the words "any rights in respect of" between the words "affect" and "any transaction". Such an amendment would have done no more than implement the assurances given by Government; and it is a matter for regret that Government could not see their way to accept it.

11. *Proportion of Indian land-owners.*—The question of outstanding debts is the most difficult problem with which the Government and the people of this Island are faced. Merely to arrest the future alienation of land belonging to Arabs and Africans would, in the view of the Government, be to lock up the stable after the horse had bolted. It must, however, be said that so far the horse has shown no tendency to bolt. Indebtedness undoubtedly exists and cries out for solution; but Indians have not shown any inclination to dispossess the Arabs or the natives of their lands. I have not been able to obtain any accurate figures of the numbers of plantations owned by the various communities at present. The position, however, may be gauged from the following facts to which the Hon'ble Mr. Ahmad A. M. Lakha's attention was drawn by Government on the 28th June 1934, in answer to a question put by him as to the proportion of Indian-owned plantations. In 1922, the plantations in the Protectorate were owned by the different communities in the following proportion:—

	Indians.	Arabs.	Africans.	Miscellaneous	Total.
Owners .. .. .	323	4,191	13,557	249	18,320
Plantations .. .. .	1,300	8,688	22,187	304	32,479
Clove trees .. .. .	152,490	1,623,803	1,133,197	91,463	3,000,953

The percentage of Indian owners works out at 1.72 per cent.; and of plantations and trees owned by Indians at 4 per cent. and 5.08 per cent. respectively. It

may be that at present the Arabs and Africans are less in a position to buy land than hitherto; but so are the Indians. Moreover, a moratorium has been provided for in section 19 for the benefit of the debtors. In any case, the figures quoted in this paragraph clearly indicate that so far Indians have not shown any desire to grab the lands of the Arabs and Africans with whom they have for generations maintained the most cordial relations.

12. *Effect of the Decree on past transactions.*—The practical effect of section 4 of the Decree on the amounts invested by Indians in land remains to be considered. It is a fact well known to judicial officers that if the mortgage decree-holder is not given leave to bid at the auction, the mortgage property may not realize a price sufficient to pay off the decretal amount, even though in fact it may be worth more. This will be particularly the case in Zanzibar, because as the Attorney-General maintained in the Legislative Council "there are now virtually no Arabs or Africans who can produce ready money or obtain credit sufficient to buy new land." Therefore, deprived of the right to bid or buy at an auction, the Indian decree-holder stands to lose a very substantial amount of his just claims decreed by the Court. The seriousness of the situation will be apparent when it is remembered that Indians estimate that they have invested some eight million rupees in land. If, therefore, the Decree is allowed to have retrospective effect in the manner described above, its provisions will in many cases amount to confiscation of capital. It is to consider this problem of existing indebtedness that a Commission has been appointed as stated in paragraph 9 above; and its solution will be awaited with the utmost anxiety.

13. *Moratorium and "Fictitious Sales"*.—There are two more matters to be considered in connection with the Land Alienation Decree. Section 19 provides for a partial moratorium for a period of one year. In view of the prevailing depression I, differing from the Indian National Association, am of opinion that this provision is justified. Section 18 provides for a special rule of evidence in case of what may be called "fictitious sales". The Indian National Association of Zanzibar is strongly opposed to this provision. I am unable to support their objection in its entirety, for I am satisfied that cases do occur in which the mortgagor and mortgagee join together to register a document of sale while the intention of both parties is that the transaction should be a mortgage. In such cases there is no reason why oral evidence should not be permitted to be adduced to prove the real nature of the transaction and the so-called sale converted into a mortgage. To convert it into a usufructuary mortgage, however, would be to whittle down the rights which have already accrued to the creditor.

14. *Trespass by Arabs and Africans.*—While I was in the Island of Pemba numerous complaints were made to me of the acts of criminal trespass committed by natives on lands belonging or mortgaged to Indians. With the Land Alienation Decree the impression seems to have gone abroad among the Africans that the millennium has arrived; that their indebtedness has been wiped out by a stroke of the pen even as slavery was; and that the properties which had already been sold would be restored to them. I was informed of a case in which natives forcibly attempted to take possession of land which had been in an Indian's hands for 22 years. The District Officer, Pemba is fully alive to the situation; and it is to be hoped that this tendency on the part of natives to take the law into their own hands would be nipped in the bud lest anarchy should ensue.

### III.—THE MONEYLENDERS DECREE.

15. *The Moneylenders (Amendment) Decree, 1934.*—The Amendment to the Moneylenders Decree enables the Court to reopen transactions in which goods are sold on credit to an Arab or an African and, if the Court considers them harsh and unreasonable, to give relief on grounds of equity and fair dealing. The reason for this amendment is stated to be that many cases have occurred in which shopkeepers have been combining the sale of goods on credit with the advance of money to customers; and it is a matter of great difficulty for an ordinary and possibly ignorant defendant to prove that such a person is a money-lender under the principal Decree.

16. The relevant section of the Bill, together with the amendment proposed by Government, originally read as follows:—

"Any transaction entered into whereby any person for a consideration, other than the payment of money payable at the time of or subse-

sequent to the expiration of the period fixed for delivery, binds himself to deliver to another at any future time cloves, coconuts or other agricultural produce and any transaction whereby goods are sold on credit to an Arab or an African, whether money is lent in addition thereto or not, shall be deemed to be a money-lending transaction within the meaning and for the purposes of this Decree, and the powers conferred upon the Court by sub-section (1) of section fifteen hereof, shall be applicable to and exercisable in respect of any such transaction."

This section certainly lent itself to misconstruction, as it subjected the shop-keeper who sold goods on credit, to all the sections of the principal Decree, including the taking out of a money-lending license. This, however, was not the intention of the Government. The section has accordingly been recast and now reads as follows :—

"The powers conferred upon the Court by sub-section (1) of section 15 hereof shall be applicable to and exercisable in respect of the following transactions :—

- (a) any transaction entered into whereby any person for a consideration, other than the payment of money payable at the time of or subsequent to the expiration of the period fixed for delivery, binds himself to deliver to another at any future time, cloves, coconuts or other agricultural produce ; and
- (b) any transaction whereby goods are sold on credit to an Arab or an African whether money is lent in addition thereto or not."

This section does not make it obligatory on the part of a merchant who sells goods on credit to an Arab or an African to take out a moneylenders' license, nor does it subject him to any of the provisions of the principal Decree other than section 15 which enables the Court to reopen such transactions and give equitable relief. In my opinion the Moneylenders (Amendment) Decree is unobjectionable.

#### IV.—CLOVE LEGISLATION.

17. *The Clove Growers' Association Decree : its provisions.*—The most contentious legislation passed by the Zanzibar Government consists of the following Decrees :—

- The Clove Growers' Association Decree, 1934 ;
- The Clove Exporters' Decree, 1934 ;
- The Agricultural Produce Export Decree, 1934 ; and
- The Adulteration of Produce Decree, 1934.

The first of these Decrees establishes an Association under the name of the "Clove Growers' Association" and provides for the management of its affairs by a Board consisting of not more than 7 members appointed by the British Resident and a Secretary-Manager who will be the Chief Executive Officer. Clause 13 sets out "the objects and business of the Association", the most noteworthy of which is that the Association is entitled "to deal generally in and export agricultural produce". The operations of the Association are to be financed chiefly by a levy on all cloves exported from the Protectorate (clause 15). The Association, however, is exempt from any fee required by law in respect of any of its undertakings (proviso to clause 13), nor is it liable to pay stamp duty and registration fees in respect of documents passing between itself and its clients (clause 9). Moreover, Government undertake liability in the last instance for the losses incurred by the Association [clause 4 (6)].

18. *Clove Exporters' Decree : its provisions.*—Under the Clove Exporters' Decree no persons may export cloves from the Protectorate unless he has obtained a license to do so from the Licensing Authority which is the Board of the Clove Growers' Association (clause 3). The fee for such a license may amount to Rs. 5,000 per annum [clause 7 (1)]. No exporter's license may be assigned or transferred without the written consent of the Board of the Clove Growers' Association (clause 6). Provision is also made for the British Resident to restrict the number of exporter's licenses, if necessary (clause 9). Further, the Decree requires godowns for the storage of cloves to be licensed (clause 4). Under clause 14 exporters are required to keep books of account showing certain particulars of their transactions ; and the Board of the Clove Growers' Association



is empowered to enter godowns, call for registers and take copies and extracts therefrom (clause 13).

19. *The Agricultural Produce Export Decree : its provisions.*—The object of the Agricultural Produce Export Decree is to enable a system of grading for export to be introduced. Clause 3 prohibits the export of produce until it has been passed either by inspection or by inspection, grading and branding. For the present copra is subject merely to inspection, but cloves are subject to grading and branding. Power is given to Inspectors to enter premises at all reasonable times for the purpose of examining produce and, if necessary, to order the removal of produce from the place of inspection. There are also penal clauses which specify offences and provide for their punishment.

20. *The Adulteration of Produce Decree : its provisions.*—The Adulteration of Produce Decree at present includes only cloves and copra and is intended to ensure that the exports from the Protectorate are of good and marketable quality. Power is taken for Inspectors and Examiners to search for, seize and detain adulterated produce, and the procedure to be adopted by them is detailed. It is also provided that the sale of produce will carry with it an implied warranty of purity unless there be an agreement in writing to the contrary.

21. *Comments on the Agricultural Produce Export Decree and Adulteration of Produce Decree.*—The Agricultural Produce Export Decree, as already stated, provides for a system of grading of cloves for export. The view of the Government is that such grading is necessary in view of the differing requirements of the markets to which cloves are exported. The spice markets of India require cloves of the highest quality, while a medium quality would suffice for the Dutch East Indies where cloves are used for consumption in cigarettes. As for the industrial markets of Europe and America where cloves are used for the manufacture of vanillin, oil content, and not quality, is the primary consideration ; and a low grade clove would satisfy their demands. The grading of cloves proceeds on the assumption that India can and will pay more for them than Europe and America. The Indian National Association has not raised any objection to grading on principle, but contends that cloves are generally automatically graded in accordance with the requirements of the markets and that nothing more is required than the prohibition, which had already been in existence, of the export of cloves containing more than 16 per cent. moisture or 5 per cent. foreign matter. The Association relies on the view expressed by Mr. Kirkham, until recently Director of Agriculture, who, after an exhaustive discussion of the *pros* and *cons* for grading, wrote as follows in the Report of the Agricultural Department of 1929 :—

“ Is grading therefore really required ? For the present at any rate the consumers must rely upon their agents or shippers to select for them the quality which they require. The best cloves are bought for the best price. If the consumer pays that price but gets ‘ Khoker ’ he should change his agent. There are many firms in Zanzibar with long experience in shipping cloves to all the markets of the world and the Chamber of Commerce would always provide a list of such merchants on application.”

It is understood that some of the principal clove importing firms in Great Britain are also opposed to grading. I shall not rush in where experts fear to tread and express any opinion on the necessity for grading ; but I would point out that the real objection of Indian traders to the Agricultural Produce Export Decree and Adulteration of Produce Decree is that they too are “ links in a chain to be used as weapons of oppression against Indian merchants through the medium of the Clove Growers’ Association.” And, as explained in the paragraphs below, so long as the Clove Growers’ Association which is a semi-Government organisation is allowed to dominate the clove trade the fears of the Indian merchants that the Decrees mentioned above will be used to their detriment and for their elimination will persist.

22. *Two objectionable Decrees.*—I now proceed to consider the Clove Growers’ Association Decree and the Clove Exporters’ Decree. They aim at nothing short of the establishment of a monopoly in the clove trade. They are calculated to cause such damage to Indian interests in this Protectorate that it is not a matter for surprise that even the allied and seemingly innocuous Decrees relating to the grading and adulteration of cloves have filled the minds of the Indian community with alarm.

23. *“ The Clove Growers’ Association ”—a misnomer.*—The first point that strikes an observer is that the Clove Growers’ Association is not an association

of clove-growers. It is hardly even an association in the ordinary sense of the word ; for, apart from the Board of management, it has no members. At present the Board is composed of 3 officials, the Manager of the National Bank of India and the Secretary-Manager, Mr. C. A. Bartlett, formerly a partner of Messrs. Grazebrook-Bartlett & Co., which used to compete, not too successfully, with Indian exporters in the clove trade. There is not a single clove grower in the Clove Growers' Association, nor is the body of clove-growers directly or indirectly represented on the Board of management. It is, however, claimed that its name is justified, because it genuinely represents the interests of the clove-growers. The Zanzibar Government might as well call themselves the Zanzibar People's Association !

24. *The History of the Clove Growers' Association.*—Yet prior to the passing of the present Decrees, the Clove Growers' Association was not without potentialities for becoming a real association of clove-growers. Founded in 1927 on the initiative of the Agricultural Department it could boast of as many as 9,000 members before the end of the year. The number, however, fell off before long. The objects of the Clove Growers' Association were to unite the plantation owners for control of the costs of production, especially of labour rates ; for marketing the produce ; and for financing the needs of the growers by loans before the harvest and by advances against the value of cloves stored in the Association's godowns. The Association, however, never really became a living institution, because as Mr. Strickland remarks in his "Report on co-operation and certain aspects of the economic condition of agriculture in Zanzibar", it was "a function of Government without the authority of Government"; and the proper task of Government was "to create but not to conduct the Association." He therefore proposed that the Association should be reconstructed on a co-operative basis. The Clove Growers' Association, as established by the Decree under consideration, is very different from the Clove Growers' Association, as envisaged by Mr. Strickland. The co-operative ideal has receded to the background ; and the monopolistic idea holds the field.

25. *Objects of the Clove Growers' Association.*—The objects and business of the Association are truly formidable. On the one hand it is expected to perform such laudable functions as fostering production ; encouragement amongst agriculturists of the spirit and practice of thrift, co-operation and self-help ; seeking out the most suitable markets for cloves ; the collection and circulation of statistics ; and the grant of advances to producers. These are activities which the Clove Growers' Association can undertake with advantage to producers and exporters alike. Section 13 of Decree no. 2 of 1934 also empowers it to carry on the business of land agent, auctioneer and valuer ; to store agricultural produce ; to purchase and otherwise acquire movable and immovable property ; to purchase agricultural implements, packing and other requisite materials ; and to lease or erect any building, plant or machinery. Above all the Association, backed by the resources of the State, enters the field of trade in direct competition with and—as will be seen from the paragraph below—in suppression of existing traders in order "to deal generally in and export agricultural produce."

26. *The Clove Growers' Association versus Indian traders.*—The Clove Growers' Association has armed itself with the most powerful weapons for the purpose of eliminating Indian traders from the clove business. It enjoys exemptions and immunities which place it in a unique position of vantage as compared with its competitors. For instance, it is provided that in discharging any of the numerous functions, mentioned in paragraph 25, the Association shall not be liable to pay any fee required by any law in respect of such undertaking. The Association has also been granted exemption from stamp duty and other charges. A still more remarkable provision is that all exporters are required to pay a levy of seven annas per frasila (i.e., 35 lbs.) of cloves exported from the Protectorate ; and this amount, which is distinct from and is in addition to the export duty, goes to the funds of the Clove Growers' Association. The total amount which this levy will yield may be calculated from the fact that the average exports from the Protectorate come to 6 lakhs of frasilas. The imposition of this levy practically means that the Indian exporters have to make substantial contributions to a rival body, the Clove Growers' Association. It also means that the Clove Growers' Association is in a position to undersell Indian exporters by seven annas on every frasila of cloves. Moreover, if the Clove Growers' Association is unable to make good from its Reserve Funds any loss or deficiency which may occur as the result of its transactions, the Government have undertaken to discharge such liabilities. As if the above provisions were not sufficient to secure a monopoly for the Clove Growers' Association, the Clove

Exporters' Decree empowers the British Resident to restrict the number of exporter's licenses. Under this Decree, the fee for an exporter's license may amount to any sum up to Rs. 5,000 per annum, and the licensing authority, strangely enough, is the Board of management of the Clove Growers' Association. This Board has also been given power to grant or refuse licenses for the storage of cloves, to enter and inspect godowns and to call for certain registers kept by the traders. Legislative ingenuity can go no further than the measures which have been devised for the elimination of Indian traders from the clove industry. Armed with such powers, privileges and immunities as those noted above, the Clove Growers' Association strikes Indian traders as a Leviathan, brushing them aside, casting them adrift and trampling upon that freedom of trade which they have enjoyed for generations.

27. *Disregard of the views of Mr. Strickland and Sir Alan Pim.*—It has already been noted that the role which the Clove Growers' Association has assumed by the recent legislation is very different from that which Mr. Strickland sought to give to it. It is true that the levy on the export of cloves is based on Mr. Strickland's recommendation; but Sir Alan Pim who was appointed by the Secretary of State for the Colonies to consider and report on the financial position of the Zanzibar Government in relation to its economic resources, protested against the imposition of such a levy. "After discussing the whole subject with the Advisory Board", wrote Sir Alan Pim in his Report, "I do not consider that any such general rate should be imposed. The Association will, in any case, meet with criticism and opposition from strong local vested interests; and it is not advisable to supply them with very legitimate grounds for criticism and antagonism. Such a measure is not even advisable in the interests of the Association itself. It will enjoy substantial advantages in being placed in a position to make free advances for harvesting and on the security of stored cloves, and should depend on its own ability to convince the growers of its usefulness for extending its operations". Sir Alan Pim, at any rate, believed in progressive persuasion and not legislative coercion. There is not a word in the report of Mr. Strickland or Sir Alan Pim that either of them desired or expected the Clove Growers' Association to secure a monopoly in the clove trade. Indeed, Mr. Strickland has uttered a word of warning against rationalization. "Rationalization", he wrote, "in the sense of an attempt to raise prices by holding up cloves on the market, is a dangerous policy; and will bring loss on every person and institution in Zanzibar who touches it".

28. *Government's reasons for clove legislation.*—What, then, it may be asked, are the reasons which have prompted the Government of Zanzibar to rationalize the clove industry? The two main reasons adduced by them are the necessity for the stabilization of prices and for the reduction of middlemen. I will consider these separately.

29. *Indian merchants' alleged responsibility for fall in prices.*—As for the immediate necessity for stabilizing prices, the view of the Government is that the recent fall in clove prices, shown in Appendix II attached to this report, is mainly due to the methods adopted by Indian exporters. In introducing the Clove Exporters' Bill the acting Treasurer made the following remarks:—

"The industry has suffered severely in the past from the activities of a number of exporters who have dealt with the trade from an entirely speculative point of view; and in order to eliminate such speculative elements the imposition of export control through the licensing of exporters is considered to be essential".

Speculation there has undoubtedly been; but the statement that "the industry has suffered severely in the past" on account of the speculating tendencies of exporters is not borne out by the facts. One has merely to glance at the average prices secured by cloves during the last thirty years in order to realize how, on the whole, the industry has prospered and how recent is the decline in prices. (The fluctuation in the prices will be discussed in the next paragraph). It is true that there have been speculators. I myself came across one who is said to have been a millionaire in rupees twenty years ago and is now living from hand to mouth. The path of progress in every industry is unfortunately strewn with the broken fortunes of.

"Vaulting ambition which o'erleaps itself  
And falls on the other side".

But the industry thrives. It will be seen from Appendix II that it is only  
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since the middle of 1930 that an appreciable decline has set in in the price of cloves. This is due not so much to speculation among Indian merchants as to world factors over which they had no control. Mr. Crofton, until recently Chief Secretary, hits the mark when he says in his annual Review on "Cloves" for 1932-33 in his "Statistics of the Zanzibar Protectorate" that "the total value, £487,000, reflects the world economic depression". It is this factor which is primarily and predominantly responsible for the fall in the prices of cloves. Indeed, compared with the fall which has taken place in other products the wonder is that the decrease in the price of cloves has not been greater. Even when the price was at its nadir cloves fetched much more than the cost of production.

30. *Relation between production and prices.*—In the year 1933-34 a further factor contributed to the fall in prices, namely, overproduction. The total production in 1933-34 was nearly double that of the previous year : 9,27,188 frasilas against 4,87,366 frasilas. This phenomenon was bound to affect prices. Appendix II clearly shows the relation between production and prices. One of the interesting features in clove production is that there is a sort of cycle in which a bumper crop is followed by a small crop and that by one or more medium or average crops ; and prices too generally move in sympathy with the periodical vagaries of production. For instance, in 1909-10 the total crop was approximately 4,10,000 frasilas ; and the price in Zanzibar was Rs. 9 cents 25 per frasila. In 1910-11 the crop was only 191,000 frasilas ; and prices rose to Rs. 14 cents 64. In 1911-12 the crop rose to 799,000 frasilas and prices fell to Rs. 10 cents 39 ; while in 1912-13 the crop fell to 139,000 frasilas and prices rose to Rs. 17 cents 12. This was followed by four years of medium or average crops when prices remained fairly steady. In subsequent years, prices were affected by war, inflation and depression. Even amidst these abnormal factors, the relation between production and prices can be traced. For instance, in 1918-19 there was a bumper crop of 825,000 frasilas ; and the price of cloves was Rs. 15 cents 98 per frasila. In 1919-20 there was a meagre crop of 263,000 frasilas and prices attained the peak of Rs. 30 cents 17 per frasila. In 1920-21 the crop was double that of the previous year, and the prices half. In accordance with this tendency it was only to be expected that the crop of 1933-34 would be considerably more than that of the previous year and would fetch less. And, as stated in the previous paragraph, world depression continued to affect prices. I have referred to these figures at length in order to show how unjust is the aspersion levelled against Indian traders that the clove industry has severely suffered or that the market has unduly wavered on account of speculation among them. On the contrary, the Government have lent themselves to the reproach that they have taken advantage of an abnormal year of depression and overproduction in order to establish a permanent monopoly in cloves.

31. *Proposed stabilization of prices.*—It may be said that the very fluctuations, noted above, are an argument for the stabilization of prices. But in so far these fluctuations result from the vagaries of production, stabilization cannot be effectively achieved without restricting or regulating production, and this is evidently not contemplated. Moreover, the scheme for stabilization leaves the *competition of Madagascar* out of account. How serious a competitor Madagascar may prove to be can be seen from the following extract from Mr. Findlay's report on the subject :—

" Various estimates have been given of the total area under cloves, e.g. 16,181 Hectares approximately 36,000 acres) in 1926, but there is not sufficient information available to allow of the framing of any estimate that could be regarded as nearly reliable. If there are about four million clove trees in the Soanierana area, then there are probably fully one million more trees. Taking this estimate as approximately correct and calculating on an average production of 2 kilos (4½ lbs.) per tree in a good crop year, Madagascar could produce about 6½ lakhs of frasilas or approximately 10,000 tons of cloves in a good year. My own estimate of the maximum crop is about 8,000 tons (fully 5 lakhs of frasilas) ; that is the crop as carried on the trees, but only half of that would be picked and sold, so that my estimate for maximum actual production is 4,000 tons (2½ lakhs of frasilas) "

32. *Sir Alan Pim's suggestion for regulating the market.*—If, then, an absolute stabilization of prices is, in the nature of things impracticable, such stabilization as is feasible can be secured without resort to the drastic expedient of

establishing a monopoly in cloves. This was the view of Sir Alan Pim. He was of the opinion that if by making advances for harvesting etc., on the security of stored cloves, the Clove Growers' Association can market one-quarter of the crop, it will be in a position to exert such weight in the local market as would be of substantial benefit to the growers. Indeed, the Association can gain command over a still greater proportion of the crop if the system of levying export duty in kind instead of in cash is reverted to. Regulating the market without crushing freedom of trade, helping producers to reduce their labour charges, establishing a clove intelligence bureau, supplying information regarding the exact requirements of overseas markets, discouraging banks from making inordinate advances to exporters, these, and not the establishment of a ruthless monopoly in cloves, are some of the measures whereby Government can assist the clove industry and reconcile the interests of producers and exporters.

33. *Co-operation with Indian exporters not attempted.*—In this connection I cannot refrain from remarking that before embarking on this legislation the Government of Zanzibar appear to have made no efforts to regulate prices by securing the co-operation of or amongst Indian merchants. They seem to have gratuitously assumed that such co-operation would not be forthcoming. In introducing the Clove Growers' Association Bill the acting Treasurer made the following observation :—

“ Attempts have been made during this season to secure co-operation between exporters for the purpose of maintaining a minimum export price, but the measure of success attending the attempt has been such as to convince Government that the only effective remedy is legislative control designed to restrict the number of exporters by eliminating, as far as possible, the speculative and unstable elements.”

I tried to ascertain from the Treasurer what these attempts were. He informed me that the attempts he referred to were made not by Government but by Mr. Bartlett, at present Secretary-Manager of the Clove Growers' Association. Mr. Bartlett himself told me that at his suggestion the leading Indian exporters formed themselves into a Board this year for the purpose of maintaining a minimum export price; but that one of them (whom Mr. Bartlett naturally would not name) did not play the game; and the Board ceased to function. The version of the Indian merchants, on the other hand, is that the Board had to be broken up on account of the tactics of the Clove Growers' Association itself. I need not dwell on this unsavoury interlude further, but one thing is clear. The abortive attempt to secure co-operation, which was referred to by the Treasurer, was made *after* the main lines of the present legislation had been settled and *through* the Clove Growers' Association which was already hoping to triumph over all its rivals. The failure of the short-lived Exporters' Board is therefore at best an *ex post facto* excuse for the present legislation.

34. *“Middlemen's charges”*.—A further argument raised in support of the establishment of centralized control is that the clove industry cannot support so many middlemen as it has done in the past. The Clove Growers' Association is therefore aiming at a substantial reduction, if not the total elimination, of middlemen. I went most carefully into this matter while I was in the Island of Pemba which is supposed to be particularly infested with middlemen. My inquiries have convinced me that the profits made by middlemen have been grossly exaggerated. In reality these so-called “middlemen” are petty shopkeepers to whom the neighbouring Arab or Swahili producers find it convenient to take their produce in the first instance; and they pass it on to some leading merchant who sends it to Zanzibar. The commission levied by them is extremely moderate; and in the majority of cases they are able to eke out little more than a bare living. I have no doubt that if the inevitable functions of these “middlemen” were to be discharged by some other agency in the future, the charges would be heavier. In any case “the middlemen's charges” come to less than the levy of seven annas which is proposed to be imposed on every *frasila* of cloves.

35. *Elimination of middlemen.*—If then middlemen make but paltry profits, not much harm, it may be argued, will be caused by eliminating them from the clove trade. The answer is that the proposed legislation will reduce them not from opulence to poverty but from poverty to starvation. Further, it will drive them from their homes into exile. The overwhelming majority of the Indians

in the Protectorate are permanent settlers; in many cases their fathers and fathers' fathers were born here. Repatriation of those who are thrown out of employment by the Clove Legislation is therefore no remedy and would be a poor advertisement for the treatment of Indians in a British Protectorate.

36. *Resentment of Indians.*—I should be failing in my duty if I did not bring clearly to the notice of the Government of India the bitterness of the feeling which exists among Indians against the Clove Growers' Association. This feeling is intensified by the belief that it is a "one man's show". Though called the Clove Growers' Association it is not an association of clove growers. Though predominantly composed of Government officials, it is not a Government Department. Government officials have neither the time nor the aptitude to run a commercial concern. As the British Resident stated in the Legislative Council "a Government Department has a reputation for safety and caution, but it is not well adapted for purposes of trading. . . . . When it has been tried, it has invariably failed." The commercial side of the Clove Growers' Association—and that is the side in which Indians are interested—will therefore be entirely in the hands of its Secretary-Manager, Mr. Bartlett. In other words, Mr. Bartlett who used to be the competitor of the Indian merchants will become their master. He makes no secret of it. His attitude is that in future he would "feed" the Indian traders, so long as they behaved themselves. In fact, he has furnished figures to show that he is already feeding some. But Indians whose forefathers opened up markets for and practically built up the clove trade and who as financiers and exporters are primarily responsible for the growth of the industry from parochial into world dimensions, bitterly feel the humiliation of having to live on the crumbs from Mr. Bartlett's table.

#### V.—CONCLUSION.

37. *Historical importance of the Indian community in Zanzibar.*—The interests of the Indian community in Zanzibar demand attention not merely because of their magnitude but their historical importance. There is reason to think that the first British Consulate was established in Zanzibar primarily to safeguard Indian trading interests. Professor Coupland, Beit Professor of Colonial History in the University of Oxford, writes as follows :—

"The appointment of Captain Hamerton to reside at Zanzibar in 1841 as Political Agent for the Government of India and as British Consul under the Foreign Office was not primarily or even largely for the sake of commercial interests—for many years British trade at Zanzibar was meagre and far less than American, French or German—but on the side of the Indian Government it was mainly to watch over the many British Indian subjects who migrated to Zanzibar to do business, and on the side of the British Government it was almost wholly to maintain its efforts for the suppression of the slave trade."

Sir John Kirk, the first Consul General for East Africa, giving evidence before the Sanderson Committee in 1910 categorically stated that—

"But for the Indians we would not be there now. It was entirely through gaining possession of these Indian merchants that we were enabled to build up the influence that eventually resulted in our position."

The following observation from Mr. Winston Churchill's book "My African Journey" also merits quotation :—

"It is the Indian Banker who supplied perhaps the larger part of the capital yet available for business and to whom even the white settlers have not hesitated to go for financial aid. The Indian was here long before the first British Officer. Is it possible for any Government with a scrap of respect for honest dealing between man and man to embark on a policy of deliberately squeezing out the native of India from regions in which he has established himself under every security of public faith ?"

I feel constrained to remark that the cumulative effect of the legislation discussed above is the "squeezing out of the native of India from regions in which he has established himself under every security of public faith".

38. *Summary of recommendations.*—My conclusions may be summarized as follows :—

(a) The Land Alienation Decree is unobjectionable provided—

- (i) the racial distinction at present drawn between Africans and Arabs on the one hand and persons who are not Africans or Arabs on the other is replaced by the more rational distinction between agriculturists and non-agriculturists, and
- (ii) the Decree is not allowed to affect the rights arising from past transactions relating to land. As already stated a Commission has been appointed to enquire into this problem ; and action may be deferred pending the receipt of its recommendations.

(b) “ The Moneylenders’ Amendment Decree ” which enables the Courts to reopen any transaction in which goods are sold on credit to an Arab or an African and to give relief on grounds of equity and fair dealing is, in my opinion, justified.

(c) “ The Agricultural Produce Export Decree ” and “ The Adulteration of Produce Decree ” need not be objected to, provided they will not be operated under the overshadowing influence of, and pressure from, the Clove Growers’ Association.

(d) “ The Clove Growers’ Association Decree, 1934 ” and “ The Clove Exporters’ Decree, 1934 ” are, in my opinion, calculated to cause irretrievable damage to Indian interests and will practically oust the Indian trader from Zanzibar. I would therefore urge that the strongest possible representations may be made for their removal from the statute book.

39. *Acknowledgments.*—I would like to place on record my grateful appreciation of the facilities afforded to me by the Government of Zanzibar for my enquiries. No Government could have been more considerate to a visitor or given him greater assistance. In particular, I owe a deep debt of gratitude to Mr. McElderry, the acting Resident, for the hospitality which he extended to me and for the patient and dispassionate manner in which he discussed the various Decrees with me and explained the Government point of view. I also received much assistance and hospitality from all communities, including Arabs, and in particular, from the Indian National Association of Zanzibar. Among the friends who assisted me it would be invidious to mention names ; but there are three whose assistance has been invaluable, namely, Mr. Yusufali Karimjee Jivanjee, the Hon’ble Mr. Khimji Khatau Sualy and Mr. Tayabali, Bar.-at-Law. Finally, I would commend to the notice of the Government of India the conspicuous zeal and ability with which Mr. K. G. Nair discharged his duties as my secretary, stenographer and typist.

K. P. S. MENON.

ZANZIBAR,

10th September 1934.

## APPENDIX I.

<i>August 1934.</i>		
4th to 6th	..	.. In Simla.
8th	..	.. 11 A.M. Met Committee of the Imperial Citizenship Association at Bombay. 3 P.M. Sailed by S. S. "Kenya."
18th	..	.. Attended lunch given by Federation of Indian Commerce, Kenya, at Mombasa. Attended Tea Party in honour of Sir Joseph Byrne, Governor of Kenya.
20th	..	.. Reached Zanzibar. 10-30 A.M. Met Indian members of the Legislative Council. 11-30 A.M. Paid respects to His Highness the Sultan of Zanzibar. Evening. Visited Arab shambas with Provincial Commissioner, Zanzibar, and District Officer, Pemba.
21st	..	.. Evening. Circular drive with Provincial Commissioner.
22nd	..	.. Interviews with Mr. Yusufali Karimjee Jivanjee, Mr. Tayabali, Bar-at-Law and Mr. Doctor, Advocate.
23rd	..	.. 9 A.M. to 12 Noon. Discussion with the Hon'ble Mr. Khimji Khatau Sualy, M.B.E.
24th	..	.. 9 A.M. to 11 A.M. Accompanied His Excellency the Resident and Director of Medical Services and Sanitation in bazaar inspection. 12 Noon. Met Mr. Parnell, Lands Officer and Mr. Bartlett, Secretary, Clove Growers' Association.
25th	..	.. 10 A.M. Arab Deputation. 4 P.M. to 6 P.M. Visited Chwake.
26th	..	.. 9 A.M. to 11 A.M. Went round Darjani in company with His Excellency the Resident and District Officer, Zanzibar. 4 P.M. to 6 P.M. Visited Mr. Shapurji's shamba.
27th	..	.. Left for Pemba.
28th	..	.. Visited Chake-Chake and met leading Indians.
29th at Wete	..	.. 9 A.M. Chake-Chake Deputation. 10 A.M. Wete Deputation. 11 A.M. Pemba Arab Deputation. 12 Noon. Visited Indian schools. 4 P.M. Attended Pemba Indian Association public meeting.
30th	..	.. Visited Chake-Chake Kengeja and Mkoani. Sailed back for Zanzibar.
<i>September.</i>		
1st	..	.. Evening. Indian National Association "At Home."
2nd	..	.. Drive to Mkokoteni, visiting shambas.
3rd	..	.. 9 A.M. Ismalia Khoja Deputation. 4-30 P.M. Visited Arya Samaj, Girl's School.
4th	..	.. 11 A.M. Indian Broker's Deputation. 12 Noon. Indian National Association Deputation.
5th	..	.. 5 P.M. "At Home" given by H. H. the Aga Khan's Club.
6th	..	.. 4 P.M. "At Home" given by Arab Association. 5 P.M. Indian Public Meeting.
7th	..	.. Evening. Visited H. H. the Aga Khan's School and the office of "Zanzibar Voice."
8th	..	.. Evening. Visited Hindu Gymkhana.
9th	..	.. Attended Dinner given by the Vice-President, Indian National Association.
10th	..	.. Left for Dar-es-Salaam.



## APPENDIX II.

*Production of cloves by season (1st July—30th June) in 1,000 Frasilas with average prices in Zanzibar.*

Season.	Cloves.			Zanzibar average prices per frasila.			
	Zanzibar.	Pemba.	Total.	Zanzibar.		Pemba.	
	Fras.	Fras.	Fras.	Rs.	cts.	Rs.	cts.
1895-6	162	413	575	4	34	3	78
1896-7	86	224	311	3	90	3	65
1897-8	48	157	206	6	65	5	53
1898-9	145	466	611	5	35	5	91
1899-1900	64	221	285	6	37	5	78
1900-01	37	200	238	7	67	6	67
1901-02	44	323	367	6	92	6	45
1902-03	172	252	424	6	65	6	62
1903-04	27	99	126	9	20	11	07
1904-05	81	654	736	10	11	8	80
1905-06	178	131	309	11	30	10	80
1906-07	63	203	267	10	43	9	53
1907-08	214	542	756	10	25	9	56
1908-09	166	450	615	8	53	7	23
1909-10	110	300	410	9	25	8	59
1910-11	52	139	191	14	64	12	86
1911-12	217	582	799	10	39	9	65
1912-13	31	104	135	17	12	16	82
1913-14	146	639	785	11	82	10	09
1914-15	195	331	526	9	28	9	18
1915-16	142	655	797	9	98	9	09
1916-17	209	303	512	10	98	10	42
1917-18	64	234	298	19	86	18	66
1918-19	259	565	825	15	98	13	40
1919-20	94	169	263	30	17	25	86
1920-21	231	316	547	16	06	13	50
1921-22	66	201	267	27	90	25	13
1922-23	289	690	979	20	17	17	73
1923-24	75	237	312	27	09	23	96
1924-25	241	520	761	19	55	17	89
1925-26	219	393	612	17	72	16	97
1926-27	216	530	746	13	94	13	65
1927-28	190	500	691	12	85	12	77

Season.	Cloves.			Zanzibar average prices per fragila.			
	Zanzibar.	Pemba.	Total.	Zanzibar.		Pemba.	
	Fras.	Fras.	Fras.	Rs.	cts.	Rs.	cts.
1928-29 .. .. .	96	126	222	23	95*	23	78*
1929-30 .. .. .	383	607	990	15	08	14	36
1930-31 .. .. .	74	219	293	15	02	14	65
1931-32 .. .. .	175	761	936	9	65	9	10
1932-33 .. .. .	244	244	487	7	49	6	86
1933-34 .. .. .	146	761	927	6	18	5	66

The figures for production represent the quantities delivered at the Custom House and may be taken as approximating to the seasonal yield.

The Frasila, equivalent to 35 lbs, is the local measure of weight for cloves,

\* This and subsequent quotations are *ex-duty*.