

C O N T E N T S.

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1. Report on the Tana River Expedition, 1934. By D.G.Harris and H.C. Sampson. 1934. *X9(D26). 687 RT* pp. 1- 39.
2. Report of the Economic Development Committees, 1934. (Chairman: G.R. Sandford.) 1935. *X. 687. N34L* pp. 40-196.
3. Report of the Select Committee on Economy, 1935. (Chairman: H.G.Pilling.) *X. 687. N34L* pp.197-253.
4. Report of the Dairy Industry Enquiry Committee, 1935. (Chairman: H.B.Hamilton.) *X9(AB311:71). 687. N35L* pp.254-281.
5. Inspection Note on the Kenya Cotton Crop in November and December, 1935. By S.Milligan. 1936. *X9(J781). 687-N3* pp.282-295.

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**REPORT OF THE TANA RIVER
EXPEDITION 1934**

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MAPS

Sketch map of the Tana River, showing the places mentioned in the Report.

Sketch map of the upper Tana area, showing approximate contours and possible alignment of a canal.

REPORT OF THE TANA RIVER EXPEDITION

To—

THE RT.-HON. MAJOR SIR PHILIP CUNLIFFE-LISTER,
P.C., G.B.E., M.C., M.P.,
SECRETARY OF STATE FOR THE COLONIES.

SIR,

We, the undersigned, have the honour to submit herewith our Report.

INTRODUCTORY.

2. In pursuance of your instructions to visit Kenya and report on the possibility of agricultural development on the Tana River we left England on 25th January and reached Mombasa on 18th February, 1934.

3. We feel that it would be tedious were we, in this report, to give a full and detailed account of the journeys which we performed in Africa and we content ourselves therefore with annexing, as an Appendix, a diary showing our movements from day to day. But a few general remarks on the subject may be of interest.

4. Modern invention has, of course, enormously facilitated all reconnaissance work; we have little hesitation in saying that thirty years ago an expedition would have required a year or more to cover the ground which we covered in three months. The most potent factors in this connection are the aeroplane and the motor lorry. By means of the aeroplane we were able not only to reach our base on the Tana at Garissa, 250 miles from Nairobi and that mostly through heavy bush, in the course of a single afternoon, but also to fly over the whole of the country included in the scope of our inquiry before we commenced our work on the ground. We flew down the river from the rapids, 450 miles above the sea, to the mouth and back to Garissa, a flight which was of the utmost value in giving us a clear conception of the course of the Tana, of the nature of the country on either side and of the problems which these presented.

5. By means of the motor lorry our expedition was able to achieve a considerable degree of mobility. When, some three years ago, Garissa was made the headquarters of the surrounding district, communication with it was established by the

construction of three roads, one to the west to Kitui and thence to Nairobi, one to the south to Bura where it connected with the old Lamu track, and one to the north to Garbatulla on the road between Isiolo and Wajir. These so-called roads are not roads as the term is understood in England; they are merely tracks through the bush from which the vegetation has been removed and its stumps extracted. Probably a pound a mile represents their average cost. They are unbridged and, where they cross torrents or pass through bad soil, are impassable after rain. In many cases only a driver with previous acquaintance with the roads can distinguish them from the game tracks with which the country is intersected. But in spite of their disadvantages they afford, during dry weather, effective if somewhat uncomfortable transport routes as we discovered in the many hundred miles which we travelled over them.

6. It was also by means of these tracks that, although our work lay for the most part in the wilder type of country (lions and elephants were almost nightly visitors to our camps on the upper Tana) we were able to keep throughout in periodical communication with the outer world.

7. As illustrating our remark as to the time saved by the use of these modern conveniences we may instance the journey from Massabubu to the sea, a distance of about 100 miles as the crow flies or of 275 miles if the windings of the river be followed, the river being, in the absence of the tracks already described, the only transport route which the country affords. We performed this journey three times, once by air, taking rather over an hour, once by road over the Bura-Lamu track taking two days, and once by canoe down the river taking ten.

8. We were extremely fortunate in that the rains broke late and that consequently we were able to see all that we wished before the tracks became impassable. We were even more fortunate in that we were not seriously delayed on our return journey. We were anxious to see the river under flood conditions and this entailed postponing our departure as long as possible. We left immediately after the first flood but for two or three days there was considerable doubt whether we should succeed in making our way out of Tanaland otherwise than by collecting baggage camels and proceeding on foot, facing a canoe journey of 450 miles to the sea, or sending a runner 250 miles across country to Nairobi to recall the aeroplane. The roads to Lamu and Kitui were both impassable and the only route open was that northwards to Isiolo, 180 miles away.

During the first two days of our journey along this route we averaged only 18 miles a day, the lorries having to be man-handled over every drift. But on the afternoon of the third day we were fortunate in reaching a belt in which rain had not yet fallen with the result that we had little further difficulty in reaching Isiolo and in proceeding thence round the north of Mount Kenya to Nyeri and Nairobi. We reached Nairobi on 23rd April.

9. In spite of the unhealthiness of the tract and the fact that the work had to be undertaken during the two hottest months of the year the health of all three members of the expedition remained good throughout.

10. We had originally intended to remain in Nairobi and write our Report there but the Government of Kenya expressed the wish that, while we were in the country, we should examine and report on certain smaller drainage and irrigation schemes which they had under consideration. These occupied us for three weeks, involving visits to Kisumu on Lake Victoria, to the Kamasia Reserve and to Taveta on the Tanganyika border. As a result we were able to submit to the Government reports on three schemes of some magnitude, the Kano Plains Project, the Perkerra River Irrigation Project, and the proposals for irrigation in the Taveta Reserve with water from the Njoro Springs. At the request of the Government of Kenya we are submitting to you copies of our reports on these schemes.

11. We reached Mombasa on 18th May. We had hoped to be able to inspect one further small scheme, the Umba Valley Project, near the coast in the Digo District some 80 miles from Mombasa but unfortunately heavy rain rendered the Mombasa-Tanga road impassable and we were unable to reach the site. We sailed from Mombasa on 26th May.

12. During our three months' stay in Kenya we travelled in all some 4,400 miles, of which 800 were covered by rail, 800 by air, 400 by canoe and 2,400 by car and lorry, an average of 45 miles a day, a high average having regard to the class of track over which most of the motoring was done.

13. The Government of Kenya afforded us every possible facility for our work and we are most grateful for the assistance on which we could always rely from every official of that Government with whom we came in contact.

14. Finally, we desire to take this opportunity to express our gratitude to Mr. H. B. Sharpe, the third member of our expedition, for the invaluable services which he rendered both to us personally and to our work throughout our visit to Kenya. Mr. Sharpe was on leave when we were appointed, having recently relinquished the charge of the Garissa District, but he consented to postpone the balance of his leave in order to accompany us. To him fell the task of making all arrangements for the expedition, a most exacting labour having regard to the extent and nature of the country which we had to traverse, and no greater tribute to his powers of organization can be paid than the statement that our whole programme was carried through punctually and without a single hitch. It was mainly owing to the skill and energy with which he overcame every obstacle as it arose that we were able to complete our task within the allotted time. We are further indebted to him for placing freely at our disposal his wide knowledge both of the country and of the people who inhabit it.

CHAPTER I.

THE SCOPE OF THE INQUIRY.

15. It must be understood from the outset that the scope of the work which could be done on a river so extensive as the Tana during an expedition lasting only two months was distinctly limited. Nor was this limitation imposed by time alone, the difficulty of the work being considerably enhanced by the paucity of the information available regarding the country and by the nature of the terrain itself.

16. Normally an irrigation survey starts with at least a reasonable map of the area to be irrigated and with some information as to the relative levels of the several parts of the country. No such map of the Tana Basin exists, the only ones available proving useless when any degree of accuracy was required. The course of the river shown upon them bore merely a general relation to the truth while the detail, bends and the like, was purely conventional. Distances scaled from the map were thus most deceptive. The place names gave little more than an indication of the position of the places to which they referred and no reliance could be placed on their correctness. Only two contours are shown upon any map; we had no means of checking the absolute accuracy of either of them but our investigation left us in little doubt that, if either of them was right, the other must be wrong.

17. To the inconvenience due to the lack of proper maps was added the difficulty caused by lack of visibility. The flood valley of the river is for the most part covered with dense grass and forest while the dry lands on either side, although the vegetation is sparser, are sufficiently well clad in acacia, balsam and other desert trees to reduce the range of vision to a few yards. There are, in general, no eminences or hills, other than an occasional hummock or ant hill, from which any view of the country as a whole can be obtained. In the result there was usually considerable difficulty in forming an opinion as to the relative heights of the various portions of the basin, a matter of the first importance to any irrigation scheme. Often it was only from the nature of the vegetation or the occurrence of swamps that any indication in the matter could be obtained.

18. The forest and grass which covers the flood valley of the river in its upper reaches is almost incredibly dense. To cross the valley meant struggling in the wake of a Pokomo

guide through high grass well above one's head alternating with bush so thick that the only passage was along game tracks which were often little more than low tunnels through an almost solid tangle of tree vegetation. And when, after three or four miles of progression such as this, the higher land on the opposite side was reached, it was only to encounter more bush, lighter, it is true, but almost equally opaque.

19. The denseness of the growth naturally militated also against the taking of any very extensive lines of levels. The only time we attempted to clear a line for the purpose in the flood valley our average progress, with forty men at work, was less than a hundred yards an hour and this in spite of the fact that the undergrowth on this particular line was moderate compared with some which we encountered. Even in the desert uplands the clearance of lines was a long and tedious task, and, although a certain amount had to be done, it was necessary, on the score of time, to reduce it to a minimum.

20. Levels were, of course, essential and we did the best we could. Advantage was taken of elephant tracks and the like. The work was shortened by expedients such as departure from exact bearings when time could be saved thereby and the estimation of distances by pacing, a method which, when checked tacheometrically, proved to be reasonably satisfactory. We had no survey staff with us so had to do all work of this nature ourselves. No high degree of accuracy is claimed for the result but it can be taken that the general trend of the observations, and the conclusions drawn from them, are reliable.

21. Clearly, in circumstances such as these, it was impossible for us to do more than make a very general reconnaissance of the country. To formulate anything in the nature of a detailed project was out of the question; the most that we could hope to accomplish was to decide whether any project was feasible and, if so, whether it was *prima facie* sufficiently promising to justify further expenditure on the preparation of a proper survey and of an estimate of its cost. In a recent despatch to the Secretary of State for the Colonies, His Excellency the Governor emphasized that the immediate necessity was to define the problem as, until this was done, no definite policy could be drawn up for the development of the area. It is, therefore, to the definition of the problem that we have, in the main, devoted ourselves.

CHAPTER II.

DESCRIPTIVE.

(a) THE TANA RIVER AND ITS BASIN.

22. Before we proceed to a description of the Tana River it is of interest to note the traces which it has left of its geological history. It runs to-day at the bottom of a wide shallow basin which, during some past epoch, has been cut out of the raised sea floor by the action of a vast volume of flowing water. Such observations as we were able to make in the upper reaches of the river indicated that the left side of this basin (the only side which we were able to examine) rises at a maximum to a level some 350 feet above the present water level, in general sloping gently back from the river for a considerable distance, sometimes as much as ten miles, before the water-shed is reached. The surface soils on this slope contain large quantities of coarse water-worn grit and we found beds of water-worn quartz pebbles as high as 200 feet above the present course of the river. This furnishes evidence of the size and velocity of the original river in the basin of which the Tana now flows.

23. A river of this magnitude could not be expected to be content to flow quietly between its gently sloping banks. At intervals it attacked them and large eroded areas have resulted, the even slope being broken and the ground falling from level to level either through a series of hummocks or occasionally in an almost vertical cliff face. These hummocks and cliffs furnish evidence of the materials which lay beneath the surface of the plain from which the basin has been scoured. The most prominent are gravel, kankar limestone and clay, the clay in some places containing large quantities of crystalline gypsum and in others septarian nodules of limestone. The position of these steep eroded areas varies considerably; some are immediately adjacent to the present flood channel of the river while others are as much as five miles distant from it.

24. As one descends the Tana the slope of its bed becomes less steep and the basin shallower until by the time Massabubu is reached the latter has practically disappeared. From this point to the coast the old river must have spread out over the whole of the coastal plain as it even now tends to do when the Tana is in high flood.

25. The Tana River derives its water from a large number of tributaries which flow into it from the glaciers of Mount Kenya and from the eastern slopes of the Aberdares. It forms, as it were, an encircling drain to Mount Kenya, passing round it on the west and south and then turning sharply northwards to receive the drainage from the eastern face. Kenya thus drained, the river flows almost due east parallel to and only a few minutes south of the equator until, in the neighbourhood of Sankuri, it turns again and commences its long southerly course to the sea.

26. Practically the whole of the Tana water comes from its mountain sources. The last tributary, the Mackenzie, joins the Tana some 500 miles from the sea; below this point no further water enters the river except such as is contributed by surface drainage after heavy rain. There must, in the hot dry weather, be considerable loss by evaporation throughout the whole of this portion of its course with no inflow to provide compensation.

27. Our investigation commenced at the point where, on the 1 to 1,000,000 map, the falls of the Tana are shown, this point being some 40 miles below its junction with the Mackenzie and some 450 miles from the sea. In actual fact these so-called falls are hardly deserving of the name; they are no more than a steep rapid, but a rapid so beset with rocks as to form an insuperable bar to navigation of all kinds when the river is low.

28. For about two-thirds of the distance included in our inquiry, that is to say, from the falls to below Baumo, the main feature of the Tana Basin is the wide flood valley, covered with dense forest and undergrowth, through which the river flows. The width of this valley varies from a mile or so to several miles; on an average it is probably about three miles wide. In flood time it may be entirely submerged, this fact accounting for the luxuriant vegetation. It is within this valley that the Wa-Pokomo, the People of the River, practise their primitive agriculture. On either side of this forest area lies the so-called barra, the higher dry lands covered with desert growth. Seen from the air the flood valley appears as a strip of bright green of varying width running through the centre of a vast sea of grey which stretches to the horizon on either side.

29. Below Baumo, which is some 150 miles from the sea, the aspect of the flood valley changes, the forest gradually giving way to grass and isolated trees such as mangoes, *Ficus*

capensis, Thumb and *Flyphaene thebiaca* Mart. A little lower still the flooded area widens and swamps and lakes make their appearance on either side of the river, showing that the Tana is there running on a ridge from which in flood time its water pours into these depressions. This is a common feature of rivers in alluvial basins and it becomes more marked as the delta is approached until at Ngao the floods extend eastwards as far as Witu, a distance of over 20 miles. Indeed we have been informed by an officer who has travelled on the lower Tana during a high flood that at such times the water stretches to the horizon on every side.

30. From Belazoni, some 30 miles from the mouth, the Tana no longer follows its original course to the sea. Years ago a navigation canal was constructed in order to enable sea-going dhows to pass from the Tana at Belazoni into the Osi Creek at Kaw, the latter affording a better outlet to the sea; no proper head was constructed for this canal with the result that it increased in width until the whole river followed it, forming a new tortuous course and leaving the old outlet high and dry. The new estuary is a fine wide waterway, although obstructed by a heavy bar of sand where it enters the sea at Kipini.

31. There are various other features of the Tana which strike the traveller who views it from the air or who follows its course from the rapids to the sea.

32. The first is, undoubtedly, its extraordinary tortuosity. Within the confines of the flood valley it writhes and twists like an imprisoned snake. No accurate measurements of the actual length of the river have been made but we consider it probable that, from Massabubu to Kipini, its length, measured round its bends, is some $2\frac{1}{2}$ times as great as the length measured along the central axis of the valley. Certain sketches, roughly to scale, made by us from the aeroplane, indicated that, in some of the more tortuous reaches, the length of the river may be as much as five times the straight line distance between the terminal points of the reach.

33. Another noticeable feature is the muddy red colour of the water; there is no season of the year when it is clear. It is, indeed, to this feature that the Tana owes its name. "tana" being the Galla word for "red." The colour is mainly attributable to silt caused by erosion in the catchment area being carried down in suspension but that this is not the whole explanation is shown by the fact that, in the dry season, the water becomes more and more opaque the further one goes

down the river. As no water enters the river from outside, this increase in opacity can only be due to scourings from the red soil of the river's own banks; it is continually changing its course, forming sandbanks here and cutting new loops there, but, on the whole, the tendency is probably to scour rather than to silt. In other words, in spite of its curves, it has not yet achieved the full length which it requires in order to attain the very flat slope necessary to counteract this tendency.

34. The water never clears no matter how long it is allowed to stand. It is inclined to be alkaline and tests made throughout the course of the river from the rapids to Golbanti showed it to have a pH value varying from 8.2 to 8.5. This was even the case at the time of the first floods.

35. Yet another noteworthy feature is the extremely flat bed which the river favours, a feature due probably to the coarseness of the sand of which the bed is composed. Most large rivers, at low water, tend to form sandbanks with deep channels between them. But even at its lowest, except for occasional marginal sandbanks at bends, the Tana displays an unbroken sheet of water from bank to bank. The result is to give an exaggerated impression of its size; it has a width varying from 150 to 400 feet and the opacity of the water conceals the fact that the greater portion of this imposing stream is only from six inches to a foot deep, with somewhat deeper channels here and there. A journey on the river by canoe entails a continual crossing from bank to bank in order to follow these deeper channels. Near Moija, some 15 miles below the falls, where the bush is extremely thick, the river is actually the main thoroughfare for foot passengers and we ourselves have had, on occasion, on the completion of a canoe journey, to wade for half-a-mile up the middle of the river into camp, the depth being insufficient to float even a native dug-out.

(b) THE RAINFALL OF THE TANA BASIN.

36. There are very few reliable data regarding the rainfall of Tanaland. Prior to 1931 there was a rain gauge at Bura; in April, 1931, when the headquarters of the district was moved to Garissa, the Bura readings were discontinued and a gauge was established at the new headquarters. Unfortunately there is a wide difference between the rainfall of the two places and no correlation of their records is consequently possible; the only information available regarding precipitation in the upper Tana Basin is thus that afforded by the three years readings of the Garissa gauge. No reliable conclusions

can be drawn from averages over so short a period; the most that can be said is that the readings indicate an annual average rainfall of from 13 to 14 inches.

37. The rainfall on the delta is more accurately known as there are old-established stations at Kipini and Belazoni; it proves to be typical of that of the coastal region in general. From such hearsay evidence as we have been able to gather it seems that there is a gradually diminishing rainfall as one proceeds up-river, the minimum being experienced in the neighbourhood of Garissa; from Garissa to the falls there is a slight increase again.

38. Except in the flood valley of the Tana no use is made of the rainfall and even there its main value to arable agriculture is to temper the dry atmosphere and thus make conditions less severe for the crops, which depend for water almost entirely on what is left in the ground as the floods recede. It is, however, of vital importance to the desert peoples who depend upon it to replenish not only the grazing but also the supplies in the water-holes upon which both they and their stock rely for water during much of the year.

39. The rainfall in the upper Tana Basin displays two striking features. In the first place, it falls in the main during two seasons, one extending from October or November until January and the other comprising the months of March and April. This is the normal distribution but failures during one or the other season are not uncommon. In the second place, a large percentage of the total annual precipitation usually falls in the course of one or two heavy storms; in 1933, for example, of a total rainfall of 14 inches no less than 5 inches, or 35 per cent, fell in the four days between the 20th and 23rd of April. There are thus long periods of drought which give rise to desert conditions.

40. Coming as it does in these sudden bursts, the rainfall causes a considerable amount of erosion in the upper Tana Basin and would cause more were it not for the gritty nature of the soils. Such erosion is particularly marked where, as occasionally happens, the sloping sides of the basin flatten out as the river is approached, forming level plains adjacent to the flood valley. The impervious nature of the sub-soils of these plains prevents the rain from sinking into the ground to any large extent and wide lagas or sand rivers are formed as it rushes off towards the river. These seldom extend for any distance inland and often disappear within a few hundred yards from the flood valley.

41. There is, however, a very marked change in conditions when the water-shed of the basin is crossed; beyond this line the soils appear to be more permeable and the water enters the ground readily. Observations made along the upper road (usually known as Mahoney's road) from Bura to Muddogashi showed that, between Bura and the junction with the branch road to Korokoro, a distance of about 40 miles, there were no signs of erosion. There was, moreover, evidence in the deep footprints of elephants made along the road during the previous rains that the rain had penetrated deeply into the ground. In two profiles which were exposed in this area grass roots were found at a depth of $4\frac{1}{2}$ feet in the lighter and of over two feet in the heavier series.

42. As might be expected in an arid region where long dry periods alternate with heavy rainstorms and where there is little or no underground soil moisture, evaporation tends to bring to the surface any soluble salts which may be present beneath.

43. Before closing this section we think it well to utter a word of warning. We have already said that a considerable amount of erosion now takes place within the basin; we would add that the extent of this erosion is rapidly increasing. This increase is directly due to over-stocking. The Somalis of the barra have recently accumulated enormous herds of stock and the whole bush is intersected with their tracks which, after heavy rain, are converted into watercourses which scour the surface soil. It is a phenomenon which one can see with one's own eyes after every storm. At present the barra furnishes excellent grazing but there is no doubt that it is rapidly deteriorating and it appears to us that, unless steps are taken to divert the attention of the Somali to matters other than stock, it is only a question of time before the same denudation will be experienced in the Tana Basin as is causing such distress and anxiety in other parts of Kenya.

(c) THE VEGETATION OF THE TANA BASIN.

44. The vegetation of the desert hinterland is extremely monotonous, consisting mainly of thorny acacias and balsam trees (*Commiphora Spp.*). The predominating species of acacia is *A. mellifera* Benth commonly known as the "wait-a-bit thorn" owing to the presence of a double recurved thorn at the base of each leaf and leaf scar. The characteristic peg-top shape of this acacia makes it easily identifiable, though there is another species with long straight thorns which has a similar habit and is fairly common. Both these species may

occur in pure stands (this is specially the case where the soils are light) or they may occur mixed together or with balsam trees. Similarly balsam trees may occur in stands of one or more species. Probably about 80 per cent of the tree flora is composed of the above kinds. Another tree which, since it is evergreen, is most conspicuous is a species of *Dobera* (?) which at a distance has the appearance of a knarled stunted evergreen oak. Occasionally on what appears to be a better class soil a tall flat-topped acacia is seen which also occurs in small areas of pine stands.

45. Of the undergrowth the most conspicuous plant is perhaps the salt-bush, which seems to remain evergreen no matter how dry soil conditions may be. A species of *Disperma* is also common.

46. As our visit coincided with the hottest and driest season of the year all deciduous trees and most of the undergrowth were bare of leaves and flowers, rendering it impossible either to name the various species of plants found or to collect herbarium material from which they could be identified.

47. Except for the dry haulms of grass, of which there was an ample supply, there were no signs of the abundant annual flora which springs up after good rain and furnishes such excellent grazing for cattle. The very fine condition of all classes of live stock, which were to be seen in their thousands at every watering place along the river, bore striking testimony to the excellence and abundance of this desert grazing which, we were told, had been even better than usual this year.

48. Where the barra joins the flood valley the flora is more varied. The *Sansevieria* or bowstring hemp, of which at least four species are common, forms a conspicuous feature of the undergrowth in this region, growing in dense patches generally around the base of trees.

49. In the flood valley the flora changes greatly as one proceeds down the river. In the upper reaches, where the river has a well-defined permanent course, trees come down to the water's edge but further down, where the river commences to cut out its own channel, there is generally a deep belt of grass on the high bank. The principal species is *Panicum maximum* L., which grows to a height of from ten to twelve feet on these fertile sandy loams. Where the river banks are low and where the level of the land falls away behind this grass fringe there is generally dense forest. Large trees of *Kigelia Aethiopica* Decne, the "sausage" tree, and of *Acacia* and

Albizzia species occur scattered through this zone. Beneath and among these trees is a dense tangle consisting mainly of henna (*Lawsonia inermis*) and "umtali" (*Cordia gharaf Ehrenb.*). Here and there are pure stands of the dom palm (*Hyphaene thebiaca Mart.*). This palm is specially common along the tracks made by elephants, who eat its fruit in large quantities and spread the seed, which is voided in their droppings, along their tracks and around their watering places.

50. Further down-stream, where the river slope is less, the composition of the riverine flora gradually changes as the alluvial soils become heavier. Below Massabubu Sorghum (*S. verticilli Florum Stapf.*) replaces *Panicum maximum* on the high river banks. Here also, owing to the widening of the flood valley, the soils behind the river fringe become more marshy and swamp grassland tends to replace tree growth. The latter, however, still survives where the banks are high and there are some fine riverside forests of Albizzia species. There is dense evergreen forest in the straight reach some ten miles above Baumo which indicates that the rainfall here is considerably heavier than on the upper Tana. Between Baumo and the point where the mangrove forests of the delta are reached the country is mainly grassland and swamps. Along the river banks where drainage is good there is usually a fringe of *Ficus Capensis* and on elevated land in the neighbourhood of villages mango trees are common.

51. All along the river margin from below the rapids to above Baumo the Tana poplar (*Populus Denhardtiorum Dove*) forms a striking feature of the river landscape. This appears to be able to grow only in close proximity to running water. When the river changes its course the very old trees alone seem able to survive and the rest disappear, being replaced by fresh seedlings along the new channel. When the fruit ripens it bursts open and the air is then full of its downy seed. The mud banks in the river appear to be the only place where this seed germinates. The species also comes up as suckers from damaged and exposed roots; there is thus ample provision for its propagation. This is fortunate, as this poplar furnishes the natives with an easily worked timber for making their canoes.

(d) THE PEOPLE OF TANALAND.

52. No description of the Tana would be complete without some account of the people who live on either side of it.

53. It will be convenient to begin with the Gallas, who inhabit the hinterland to the south and west of the river. A pastoral folk, they are a branch of an Hamitic people, formerly

located on the south-west littoral of the Red Sea, who, in the course of centuries, gradually spread throughout Abyssinia and East Africa, displacing in the latter an older Nyika people. Some half century ago they were the principal inhabitants of Tanaland, but they have in turn been displaced on the north and east of the river by the Somali. The Somalis are probably of the same origin as the Gallas, with an admixture of Arab and according to legend, of Indian ; they too, in turn, migrated south and west but, finding their way blocked in Abyssinia, they pressed south-east of it and thus arrived in the Tana hinterland. Here they encountered the Gallas and immediately showed themselves to be the stronger and more vigorous race. Many of the Gallas fled across the Tana to the western side ; others remained to wage a continual guerilla warfare with the Somalis. Subsequently there appears to have been a period, probably of mutual exhaustion, during which the two peoples lived side by side in some approach to amity, but this period ended in a time of calamity ; locusts, drought, rinderpest, smallpox and famine smote Tanaland successively and in the process the Gallas were decimated. The Somalis, having suffered less, seized the opportunity to settle accounts with their now weakened foes and from that date the Gallas ceased to exist as a free people east of the Tana except at Witu and Mknumbi in the Lamu District where the Somalis were deterred by the dense Boni Forest. With this exception, those who did not escape to the west bank of the Tana with their flocks and herds became the slaves of the Somalis and it was only on the abolition of slavery in British East Africa that their emancipation was ultimately effected. By that time, owing to marriages between Somali men and Galla women, Somali and Galla blood had become largely intermixed.

54. By an agreement made with the Somalis in 1915, any Galla who so desired was permitted to cross the Tana and join his kinsmen on the other side. This permission was, however, subject to the condition that, on leaving, he left half his stock behind him, the assumption being that such stock was acquired from his Somali masters during the period of his servitude. A large number of Gallas took advantage of this agreement and crossed to the west of the river where Somalis are forbidden either to reside or to graze their stock.

55. These then, are the races which now inhabit the desert hinterland on either side of the Tana. On the east the Somalis, an intelligent, thrifty, race-proud, hardy and cheerful people who, even in the comparatively short period of their

occupation, have amassed enormous herds of stock with which they wander over the land from water-hole to water-hole. On the west the Gallas, a less vigorous tribe but also prosperous stock-owners with, it is said, a better knowledge of animal husbandry even than the Somalis and living the same kind of nomadic pastoral life.

56. Between the two, in the flood valley of the river, live the Wa-Pokomo, an agricultural people of Nyika origin. The strip of riverine grassland and forest in which they dwell is unhealthy in the extreme and their cultivation is always a gamble with flood on the one hand and with drought on the other. These factors have left their mark both upon their physique and upon their character. They cultivate large areas along the river's edge and on the margins of the swamps behind but their agriculture is necessarily of a hazardous kind and those who know them best describe them as lethargic and lacking in initiative. For long ages they were a subject race of the Galla and latterly of the Somali and although, under British rule, they are now protected from their hereditary enemies of the hinterland, the later still make what they can out of them, being keen traders while the Wa-Pokomo are credulous and easily cheated. It must, however, be admitted that the presence of the Somalis and the Gallas is to-day far from being an unmixed evil even from the Wa-Pokomo's point of view since, for hundreds of miles of river, these tribes represent the only market for their surplus produce. As we have already stated, the failings of the Wa-Pokomo seem to be directly attributable to the unhealthiness of the land and climate in which their lot is cast and it is very noticeable how not only the physique and intelligence of the people but also the construction and cleanliness of their villages improve as one proceeds up-river and leaves behind the malaria-ridden reaches of the lower Tana.

CHAPTER III.

AGRICULTURE IN THE TANA BASIN.

57. There are two distinct types of agriculture represented in this region. The people of the dry country on each side of the valley, the Somalis on the left and the Gallas on the right, are nomads who move about with their flocks and herds wherever water and grazing are to be found. They do no cultivation and live principally on milk, ghee, blood and meat. In the dry season, when the desert grazing is exhausted and the water-holes dry up they come down to the river to water their stock, to trade ghee, hides and skins for tea, sugar and cloths at the Indian and Arab stores, and to trade sheep, goats and meat with the riverine tribes in exchange for maize pulses and simsim. Until this annual migration to the river takes place no stock are to be seen in its vicinity and the country is brown with dry grass. Within a fortnight, however, of this invasion hardly a vestige of grass remains and the whole country is a network of stock tracks each of which, when rain falls, becomes a miniature river.

58. As soon as the rain replenishes the water-holes in the desert bush, the nomad peoples immediately move out again from the river where there is always the risk of animals being infected by tsetse-fly. In recent years the number of stock owned by these tribes has increased enormously and, as we have already occasion to remark, it will not be long before the problems arising out of overstocking become as acute here as they now are in other native reserves in Kenya.

59. The Somali stock consists of camels, cattle, sheep and goats. The Galla keep cattle, sheep and goats but not camels. All the stock, which are seen in vast numbers at every watering place on the river, are breeding and young stock. The only exceptions are pack bullocks, pack camels and donkeys. The cattle are all Zebus; most of them are white, some with white and some with black skins. They are well-built, big-boned animals, admirably suited for breeding working bullocks if ever irrigation is developed in this region. Much greater care should, however, be taken in the selection of breeding bulls and only those with black skins should be selected. In a hot, dry country such as this, black-skinned, white-haired bullocks have more than twice the working life of similar animals with a white skin.

60. The sheep are a hairy, fat-tailed breed, white with black head and shoulders, and are admirably suited to this dry thorny country. The goats are also a white breed with black skins. They are shorter in the leg than the breeds commonly seen in such dry country and in all probability originated from Arabia though they appear to have lost the milking qualities for which in Arabia this type of goat is famous.

61. The other type of agriculture is that of the riverine tribes who live in settled villages and who are essentially tillers of the soil. They keep no live stock except a few sheep or goats, which they have traded with their Somali or Galla neighbours, and poultry, which are found in every village. The general system of agriculture is the same throughout the length of the river, though the proportion of the different crops grown varies considerably in the different reaches, being governed principally by the soil conditions in the reach. When flying over this country it was a matter for wonder that there was such a large area under cultivation considering the limited population of the river and this seemed to belie the statement which we have found in several reports that the people are indolent and lazy. It is possible that this applies to the men who, having been forced to leave their villages and labour elsewhere in order to earn their hut tax, seem apt to consider that they have thereby done all that can be expected of them on behalf of their families, but it certainly does not apply to the women and children who, so far as our observation went, were labouring in the fields from dawn to dusk.

62. Where the banks of the river are high, bananas, plantains and sugar-cane are grown on the crest of the natural levee; where the country commences to fall away behind this levee and also where the banks are not high enough for bananas and the like, maize is grown. The bulk of this is sown after the floods of November and December recede so that the crop ripens in April or May before the river rises again. It may, however, be sown at any time, in which case it is often a gamble whether the crop will be drowned out by the rising river or whether it will be killed by drought. The maize is sown in holes about four or five inches deep and from four to five feet apart. Several seeds are sown in each hole, the soil in which is either broken up or mixed with sand to form a mulch. The maize grown is a white or yellow flint tropical kind of good quality. After the first weeding cow-peas, of which there are at least three excellent varieties, are sown here and there in the maize crop.

63. As the level of the land becomes lower further back from the river, chiroko (*Phaseolus aureus* Rorb.) takes the place of maize. There is only one variety of this which matures in about seven or eight weeks. This is sown in succession as the swamps dry out and cultivation follows closely the fall of the water. The crop is sown in holes in the same way as maize but in this case the holes are only from two to two-and-a-half feet apart. If there is any area beyond this where water is expected to stand throughout the dry season rice is either sown or transplanted. In the upper reaches of the river rice is always a precarious crop since the land may dry out or a sudden rise in the river may drown it; in such conditions the people are quite accustomed to having to pull up and retransplant their rice crops either nearer or further away from the water as the case may be. When, however, the crop has once made its stem, it must be left to take its chance. In the upper and middle reaches of the river rice is grown as a dry season crop both along the shelving banks of the channel and on the mudbanks made by the previous flood in the river bed. As can be imagined, these crops are precarious in the extreme since a rise of only two or three feet in the river may drown them out.

64. On the lower Tana, where the river banks are in general lower and the land heavier and not so well drained, the proportion of rice to other crops increases greatly, though even here any high-lying land is planted with bananas, maize and similar crops. Below Kau, which is situated at the present junction of the Tana River and the Osi Creek, rice is grown exclusively. This rice cultivation is of comparatively recent origin and has only been in existence since the Tana River altered its course to follow the Belazoni Canal and thus to flow into the sea at Kipini. A result of this has been that at spring tides the sea water entering the river causes the fresh water coming down the Tana to bank up and overflow onto the adjacent country, thus furnishing a natural periodic irrigation. The banks of the old Osi Creek are so low that this flooding occurs in the whole length from Kipini to Kau. Rice cultivation, utilizing this supply of fresh water, was first introduced by the people of Kau and it is now rapidly spreading down the river towards Kipini. The people who are now cultivating in this region come from all parts of the river, a fact which demonstrates how ready they are to migrate to any place where agricultural conditions are permanently favourable.

65. The rice area in question is a most promising one and we suggest that steps should be taken by Government to establish it on sound lines. We understand that much of the area is either Crown Land or Forest Reserve and that the majority of the Wa-Pokomo who are now cultivating there are mere squatters. They have not been discouraged by the Administration from making clearings and growing rice upon them, but they are there on sufferance and have no real right to do so.

66. This is one of the few places in Kenya where land is being permanently cultivated. Around Kau there are rice lands which are regularly cropped twice a year. A settled form of agriculture such as this should receive every encouragement to develop in an orderly and systematic manner and promiscuous clearing should no longer be allowed. Irrigable land is much too valuable for this to be permitted. Individual holdings should be demarcated and it is suggested that they should be given out at a suitable rent on long leases. It is further suggested that this rent should be sufficiently high to more than cover hut tax and that hut tax be remitted in the case of permanent lease-holders who pay their rent. It would also be advisable to insert in the lease a clause empowering Government to revise the rental after a stated period of years. Such steps should go a long way towards establishing a permanent agriculture in the tract and a settled population whose men-folk would not have to leave their villages in order to earn their tax money.

67. A great need in this area is the provision of raised threshing floors where the cultivators can stack and thresh their grain. These should be provided on a communal basis. Several of the administrative officers who have held charge of the district have taken great interest in this rice area and, largely as the result of their efforts, most of the numerous varieties of rice which were previously grown have disappeared. Three varieties only are now grown, all of which are of excellent quality and flavour. These, if properly harvested and milled, should find a ready market among the better class Indian and Arab residents on the Coast and in Zanzibar. At present no facilities exist for properly drying the crops when harvested and we were told that the rice had a bad reputation as it did not keep well : the provision of threshing floors would probably correct this state of affairs.

68. It would seem also that a definite limit must be put to the expansion of this area. The water banked up by the spring tides has in the past been kept more or less in its course by the dense vegetation on either bank. If this is allowed to be entirely destroyed the water will tend to spread too rapidly over the country and will probably fail to rise to the present levels. The result would be that the oldest established rice lands at the head of this area near Kau would tend to be thrown out of cultivation for the benefit of the newly cleared and less well-drained land nearer the river mouth.

69. As already mentioned, the number of varieties of rice in this area has been reduced to three. They are only suitable for sale and are quite unsuited for the food requirements of agricultural workers. It is suggested that trials be made with coarser three-month varieties which would not only feed the people but would ensure a crop even in seasons when the floods in the river fail. A short duration variety such as this would also be of great value to the cultivators of the middle and upper Tana, where the rice crop is always precarious.

70. In all parts of the Tana Valley the introduction of earlier maturing varieties of the crops now grown would be of great benefit to the people. If the growing season of any particular crop could be shortened even by a few weeks it might make all the difference between plenty and scarcity. Should any major irrigation scheme be constructed on the Tana, an ample food supply grown locally to feed the imported labour would mean the saving of large sums of money which would otherwise have to be spent on transport.

CHAPTER IV.

POSSIBILITIES OF IRRIGATION IN THE TANA BASIN.

71. For the purpose of this chapter we propose to divide the Tana River into three reaches, the lower, middle and upper Tana, and to deal separately with each. It is impossible, in the absence of a reliable river survey, to state distances with accuracy but, measuring along the course of the river, the lower or deltaic Tana extends to a point above Garsen about 100 miles from the mouth, the middle Tana from this point to Bura about 300 miles from the mouth and the upper Tana from Bura to the rapids, which are usually stated to be about 450 miles above Kipini.

72. We shall also include a section dealing with the possibility of major irrigation schemes in the flood valley of the river in general.

(a) THE LOWER TANA.

73. We shall deal first with the lower Tana since it is clear from past discussions on the subject that it was this reach of the river which the Government of Kenya had particularly in mind when recommending that a survey of the possibilities of development should be made.

74. In the last hundred miles of its course the Tana, in common with all deltaic rivers, flows upon a ridge with lower land on either side. When the river rises in flood the water overtops its banks and spreads over this lower land; at such times it may attain a width of twenty miles or more.

75. Any large scale development in this area could only be achieved by a combination of protection and irrigation, protection being effected by the canalization of the river between embankments in order to prevent flooding and irrigation by the construction of canals to lead water onto the land thus protected when required instead of leaving it dependent on seasonal rainfall and inundation as at present.

76. We do not propose to deal at any length with the great engineering difficulties which would be experienced in constructing a barrage and its connected works either on the lower Tana itself or in the reach immediately above it; it will suffice to say that any such works would be enormously expensive and would constitute a continual source of anxiety owing to the unstable nature of the river and the consequent

risk of a sudden change in its course. These factors alone would probably suffice to put the scheme out of court. But even if the difficulties mentioned could be surmounted nothing can surmount the dangers which are inherent in the construction of any embankment system in a deltaic area. It has been abundantly proved, both in India and America, that works of this nature result, in a comparatively short space of time, in the deterioration and ultimate ruin of the land which they purport to protect.

77. The effect of such a scheme can be easily explained. A river in its delta invariably carries during flood far more water than its main channel or channels can accommodate with the result that the surplus, heavily charged with silt, spreads out over the surrounding country, depositing its silt which both raises and enriches the land. If such a river is embanked on both sides this silt will be deposited in the only place left open for it, namely, on the river bed which will, in consequence, rise rapidly, with a corresponding rise in the level of floods, until the river is running on a ridge with its bed at a higher level than the land on either side. Not only is this land impoverished owing to the lack of silt deposit but a breach in one of the embankments constitutes a catastrophe of the first magnitude, the water pouring down from its elevated position and carrying destruction to all in its path. If only one side of the river is embanked the process is the same but slower; both the river bed and the unprotected side rise by silt deposit until they are above the level of the side protected.

78. In the middle of the last century, before these facts were realized, large areas of land were protected by embankments in the deltas of the rivers of Bengal and Orissa. In Orissa the position was not unlike that which obtains on the Tana at present except that the rivers which form the Orissa delta are considerably larger than the Tana. Double embanking, that is to say, the canalization of the rivers between marginal embankments, was largely resorted to as a means of protection while some millions of pounds were spent on the construction of canals to lead water into the protected areas. At first the arrangement appeared to be successful but little by little the inevitable happened, the beds of the rivers rose by silt deposit and a section through the country to-day reveals a series of ridges and valleys, the rivers running on the summits of the ridges and constituting a permanent menace to the agricultural land in the valleys between. In

some cases the river beds are ten or twelve feet above the surrounding country, and the original embankments have grown into huge earthen dams, hundreds of miles in length, the maintenance of which entails great labour and expense. This labour and expense is, moreover, infructuous since obviously the embankments cannot be raised indefinitely and the time must come when the thickly populated land which they protect will have to be abandoned to its fate, a fate far worse than if protection had never been attempted.

79. Nor is Orissa by any means the only example of the dangers of the double embanking of rivers. The terrible floods which have, in recent years, been experienced on the Mississippi have, to a very large extent, been attributable to the same cause.

80. As an alternative to double embanking efforts have been made in various parts of the world to protect by embankments the land on one side of a river only, leaving the other side open to the free flow of the floods. But the result has eventually been much the same. There is a notorious example of such one-sided embankment near the town of Burdwan in Bengal. Burdwan was originally protected by an embankment designed to keep out the highest floods of the Damodar; to-day, as a result of this embankment, the bed of the river is higher than much of the land on which the town is built while the opposite bank is some sixteen feet higher still. The position of the town is thus precarious in the extreme.

81. It is, however, unnecessary to go to India or America in order to see the effects of embanking; they can be seen on the Tana itself. When, some twenty years ago, the Belazoni Syndicate commenced operations on the lower Tana, a marginal embankment was constructed along the right bank of the river to protect the estate from flooding. Although this embankment is of such recent origin its effect is already plain to see; the land lying between the embankment (which is slightly set back) and the river channel as also the land on the left bank of the river have risen by silt deposit until they are from three to four feet higher than the protected land behind the embankment. Indeed so marked is the difference of level that when the embankment breached last year not only was there excessive flooding in the estate but it afforded, owing to its low level and unsilted condition, so ready an egress for the flood water that the silted north bank was completely drained with the result that the rice crop on it perished.

82. The maintenance of an embankment of this nature must ultimately cause the ruin of the land behind it. The bed of the Tana at Belazoni is undoubtedly rising by silt deposit and this means higher floods. It will be a matter of only comparatively few years before the embankment, if maintained, will have to be raised in order to exclude these higher floods and the vicious circle will then be complete. The embankment will have to be raised progressively with the rise in the river bed while the protected land, remaining at its original level, will eventually lie so far below the level of the river that it will be converted into a useless swamp.

83. We were asked, during our visit to Belazoni, to report on a small scheme for rice cultivation on the estate, one of the features of which was the repair and maintenance of the existing marginal embankment. Not only did we have to advise against it on this score but we have recommended that cuts should be made in the embankment and the silt laden water freely admitted to the estate with a view to the gradual restoration of normal conditions.

84. It appears to us, as we have said, that the exclusion of floods must be a cardinal feature of any large irrigation scheme on the lower Tana. On the other hand we are convinced that to protect land in deltaic areas by embankments, a measure which inevitably results in attracting population to it, is merely to pile up a debt which will have to be paid in distress and calamity in the end. In the circumstances we are definitely of the opinion that the area lying along the lower reaches of the Tana is not one which is susceptible of development on a major scale without, on the one hand, a huge expenditure of money and, on the other, the certainty of handing down a most undesirable legacy to future generations.

(b) THE FLOOD VALLEY.

85. Before we come to deal with the middle reach of the river we think it desirable to dispose of an idea which has been expressed to us on various occasions that any irrigation scheme on either the middle or the upper Tana would have as its object the irrigation of the land in the flood valley of the river where the Wa-Pokomo cultivate at present.

86. We have, in our descriptive chapter, described how the river in these reaches winds a tortuous course within a wooded central valley some miles wide, the whole of which may be submerged in flood time. Within the limits of this

valley the river is in an unstable condition ; this is true of it throughout its length from Dakacha, some seven miles below the falls, downwards. We investigated the question at various points beginning at Moija, five miles below Dakacha, where the present channel of the river runs more or less in the centre of the valley. Here we cut a line from this channel through the thick bush to the north ; after about five furlongs it emerged in a swamp which stretched to the foot of the barra some three-quarters of a mile away. A line of levels was taken along this clearing which showed that the ground fell steadily from the river bank to the swamp, the water in the swamp being no less than eleven feet below the level of the bank of the river and seven feet below that of the water in the river on the day when the observations were made.

87. The growth on the south bank was so heavy that we did not attempt any further cutting but contented ourselves with forcing our way through it on foot, reaching the barra at a distance from the river channel which we estimated at a mile-and-a-half. So far as we could judge the conditions on the left bank were reproduced on the right ; below the barra we had to wade through water which seemed to correspond with the swamp on the opposite side.

88. It is clear that at this point the Tana is in a state of unstable equilibrium. It flows in the middle of the valley, gradually raising its bed until it has reached its present elevated position. In due course an avulsion will occur ; it will burst its banks and take a new course through one of the two depressions under the barra. This course will in turn be raised and history will then repeat itself, the river swinging across the valley from course to course.

89. We crossed the valley again opposite Burdali, some 17 miles lower down, and found that similar conditions persisted. Here the river flows under the barra on the left of the valley ; we found traces of an old high level channel in the centre and a deep depression, in the form of a large swamp, under the barra on the right.

90. At Garrisa, 68 miles lower still, the Kitui track crosses the valley and it was possible to take a line of levels from barra to barra. This line showed exactly the same features, the main channel on the left, the old high level channel in the centre and a deep subsidiary channel on the right.

91. In conditions such as these the danger of avulsion from one channel to the other is always imminent. Such an avulsion took place about twenty years ago between Burdali and Saka when the river, which had previously pursued a course under the barra on the right, broke across and now flows on the extreme left of the valley. Several other avulsions, though on a smaller scale, have occurred within the memory of men now living. To interfere with natural conditions to the extent of attempting to prevent such avulsions would be to court disaster; it would entail the construction of flood embankments and lead to the effects described in the preceding section. With an unstable river of this kind agriculture in the flood valley must, as at present, remain precarious.

92. Below Garissa another factor comes into play, namely, the extreme tortuosity of the river. Here again conditions are unstable the river is constantly short-circuiting its old loops and cutting out new loops elsewhere. In this way it swings from side to side of the valley and, in a word, requires the whole width of the valley in which to play. No system of agriculture of which permanence is a feature is possible in such conditions. That the Wa-Pokomo require help admits of no doubt but it cannot be given in the shape of embankments or irrigation works; it must take the form of medical relief and agricultural assistance designed to enable them to make the best of the conditions in which they are constrained to live. If the water of the Tana is to be utilized in any large quantities it will not be in the flood valley but in the dry barra which adjoins it on either side.

(c) THE MIDDLE TANA.

93. The middle Tana, as we have already explained, extends from Bura to Garsen and we shall deal with it as briefly as possible. There are two reasons why, in our opinion, any considerable development in this reach is impracticable.

94. In the first place, the construction of headworks anywhere in this reach would be enormously expensive. We have, in the preceding section, referred to the instability of the river and to its liability to changes of course; to hold it in one channel would entail extensive training works which would always be liable to severe attack. It is problematical whether any system of training works could be devised which would be satisfactory on the middle Tana; even if devised they would

require to be on so large a scale and so heavily armoured with stone, which would have to be brought from a great distance, that their cost would be prohibitive.

95. In the second place, a canal in the barra along the middle Tana would command at best only a very small area of land. The slope of the river at Massabubu, ten miles below Bura, is less than two feet a mile and lower down the reach it probably decreases to a foot a mile or less. For rough purposes the average fall in the reach may be taken to be eighteen inches a mile, while a canal from the river would require a slope of about nine inches a mile; in other words, in every mile of its course, the canal would gain only about nine inches in height above the level of the river. Although in this reach the basin is much shallower than it is further up-stream, the slope of the barra is still such that a canal which gained so little in height above the river would command only a very narrow strip along the edge of the flood valley, a good deal of which would almost certainly be unsuitable for cultivation. The area which could be irrigated in this reach would thus be quite incommensurate with the cost of bringing water to it.

(d) THE UPPER TANA.

96. From the foregoing it will be seen that it is only on the upper Tana that any irrigation scheme is likely to be feasible. We arrived at this conclusion at an early stage of our investigation and although we traversed the whole length of the river we confined our more detailed operations to this upper reach. The result of these operations is described in the next two chapters.

CHAPTER V.

OUTLINE OF AN UPPER TANA IRRIGATION SCHEME.

97. The possibility of irrigation on the sloping sides of a river basin depends in the main upon two factors, the longitudinal slope of the river and the transverse slope of the sides of the basin. The steeper the slope of the river the higher above it will the canal be for every mile of its length; the flatter the slope of the basin the further away from the river will the canal run for each foot of height which it gains and the greater will be the area commanded by it.

98. As has already been stated in the chapter dealing with the scope of our work, we commenced our enquiry with no data whatever. Our first task was, therefore, to determine the slope of the river. To do so accurately was impossible in the time available; the critical reach was that between Dakacha and Garissa, about ninety miles in length with dense bush on either side and to run a line of levels through this bush would have entailed considerably more time than that allotted to the whole of our enquiry. We had therefore to resort to a method of approximation.

99. It is extremely difficult on the Tana to find places where river levels can conveniently be ascertained but five such places were discovered, at Dakacha, at Burdali, at Saka, at Sankuri and at Garissa, where sandbanks existed which enabled levels to be read over a considerable length of river. The slope of the river at these points was determined and found to be as follows :—

<i>At—</i>	<i>feet per mile</i>
Dakacha	7.2
Burdali, 22 miles below Dakacha ...	4.6
Saka, 50 miles below Dakacha ...	4.0
Sankuri, 75 miles below Dakacha ...	2.7
Garissa, 90 miles below Dakacha ...	2.2

These slopes and the corresponding distances from Dakacha were plotted on a graph and the resulting points were found to lie on a smooth curve of the type which might be anticipated, except that the slope determined at Saka appeared to be slightly on the high side. From the graph the mean

fall in each reach was read which, multiplied by the length of the reach, gives the total of all from place to place. The results are given in the following table :—

REACH	Length of reach in miles	Mean fall in reach in feet per mile	Total fall in reach in feet per mile
From Dakacha to Burdali ..	22	5·6	123
From Burdali to Saka ..	28	4·0	112
From Saka to Sankuri ..	25	3·0	75
From Sankuri to Garissa ..	15	2·5	38

100. The actual height of Garissa above sea-level is unknown ; the 1 : 1,000,000 map shows it as 300 feet but this is almost certainly an underestimate. It lies some 360 miles from the sea and there is, according to the observations which we made, a fall of about two feet a mile, or 170 feet in all, in the reach of eighty-five miles immediately below it. It is impossible to believe that in the lower 275 miles of the river's course there is a fall of only 130 feet, or less than six inches a mile. A rough barometric determination gave the level of Garissa as 400 feet above sea-level and this seems more likely to be approximately correct. It was, of course, immaterial for our purposes from what datum we started and we accepted 400 as a reasonable estimate.

101. The levels of the river at the various points are thus, according to our calculations :—

At—		<i>feet above sea-level</i>
Garissa	...	400
Sankuri	...	438
Saka	...	513
Burdali	...	625
Dakacha	...	748

102. It may be mentioned that the 1 : 1,000,000 map gives the difference in level between Garissa and Burdali as 100 metres, compared with 225 feet as calculated above. We are inclined to believe that the 200 metre contour, which is shown as cutting the Tana near Burdali, is approximately correct but that the 100 metre contour, which cuts it at Garissa, is incorrect and should cut it considerably lower down.

103. Having thus ascertained the levels of the river at various points it remained to ascertain the level which could be reached by a canal opposite these points. For this purpose

It was assumed that the dry season level of the water at Dakacha would be raised five feet by a barrage, i.e. to a level of 753, and that the canal would be given a slope of about nine inches a mile. The course of the canal would, naturally be straighter and shorter than that of the river, the distance to Garissa along the canal being estimated at about 70 miles compared with 90 miles by river.

104. The following table gives the distances from Dakacha to the various points mentioned both by river and canal, the levels of the river and of the canal at these points, and, finally the differences in level between the river and the canal, this being one of the two factors which determine the extent of the area commanded.

PLACE	Distance by		Level of		Difference of level
	River	Canal	River	Canal	
Dakacha	Miles	Miles	Feet	Feet	Feet
Burdali	—	—	748	753	5
Saka	22	17	625	740	115
Sankuri	50	39	513	723	210
Garissa	75	58	438	709	271
	90	70	400	700	300

105. It will be seen that a canal from Dakacha would attain an elevation 300 feet above that of the river by the time Garissa was reached.

106. The next point to be determined was at what distance from the river the elevations given above would be attained and for this purpose it was necessary to drive clearings through the barra. Lines of levels were then taken along these clearings and it was found that the canal would pass the points in question at the following distances :—

Dakacha ... Nil	Sankuri ... 7.2 miles
Burdali ... 2.6 miles	Garissa ... 7.4 miles
Saka ... 5.9 miles	

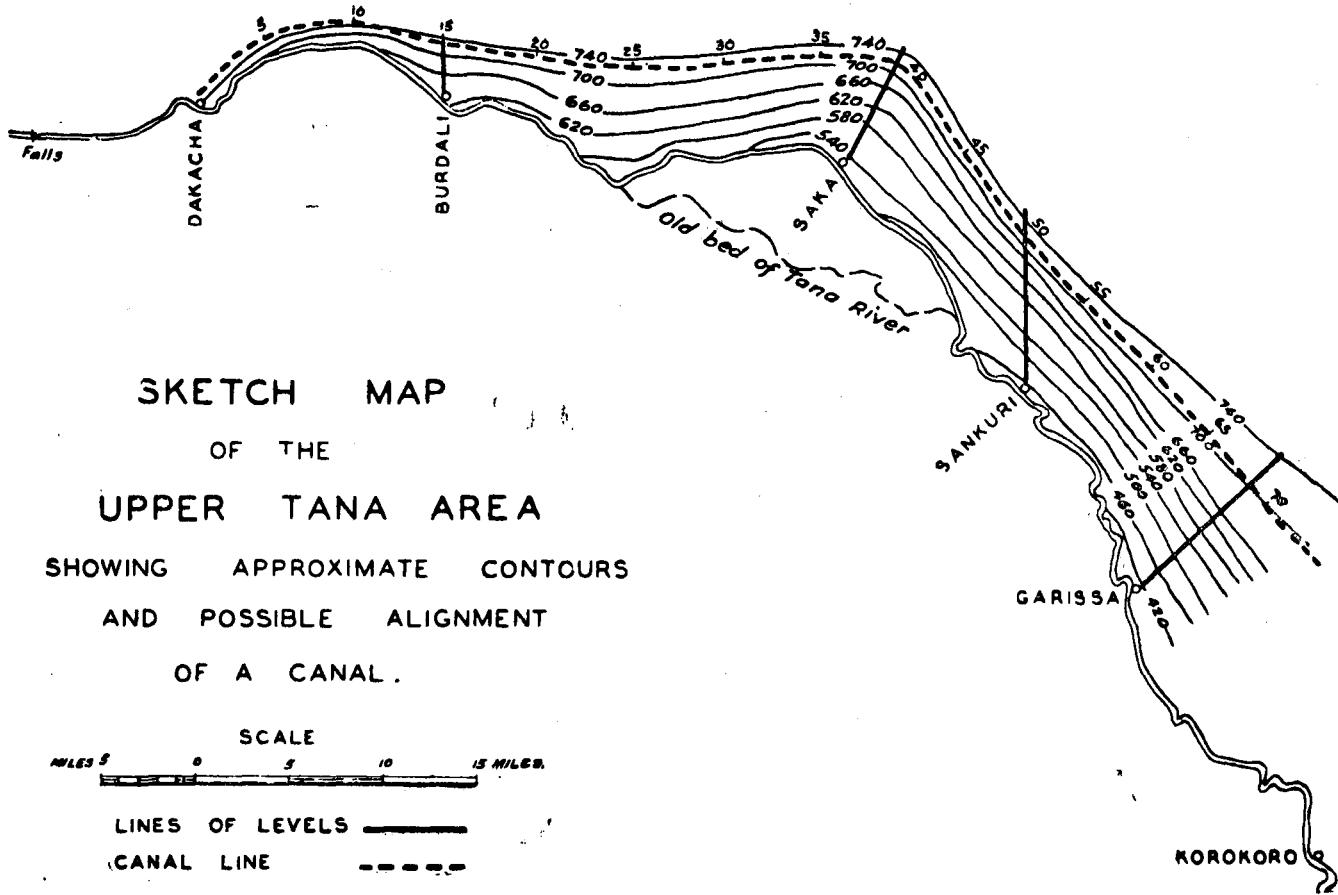
107. The area lying in the space between the canal, the river and a line drawn north-east from Garissa comprises about 280 square miles or about 180,000 acres, all of which would be commanded by the canal.

108. This, however, is by no means all the land which could be brought under command. The section across the basin at Garissa showed that, some eight miles from the river,

the slope decreased and led on to a plateau which appeared to widen out to the southwards until, between Korokoro and Bura, it took the form of a wide upland plain. Time did not permit of carrying the levels across this plateau for more than a couple of miles but barometric observations showed that shortly after this point it commenced to fall again and that there was a reverse slope of at least nine or ten miles.

109. According to our levels a canal from Dakacha would not attain the level necessary to irrigate on the plateau and reverse slope until some distance beyond Garissa. But it will be realized that all our observations were necessarily rough and in particular that our determination of river levels was only an approximation. It is quite possible that a more accurate survey would show that the level of the plateau could be attained at or near Garissa. Even if this did not prove to be the case, most of the reverse slope could be commanded by a branch canal taking off the main canal beyond Garissa and running north-westwards while in any event the large upland plain between Korokoro and Bura would be entirely under command. The latter area would entail the extension of the canal to a total length of about 130 miles, but there is nothing unusual in such a length.

110. Regarding the scheme as a whole, the commanded area is so extensive that we have little doubt that, were a canal of the length mentioned above constructed, enough land suitable for irrigation would be found to utilize any supply which could reasonably be drawn from the Tana. In the next chapter we deal with the relative suitability of the soils in the various sections of this commanded area.



CHAPTER VI.

SOILS ON THE UPPER TANA.

111. As there is no question of irrigating the flood valley of the river it is sufficient to say that the alluvial soils in that valley represent all degrees of fineness from coarse sand to fine silt.

112. The remaining areas to be considered are those in the Tana basin, which lie between the line which a canal would take and the flood valley, those on the further slope of the watershed and those which occur on the lower end of the watershed from the point where this commences to flatten out into the coastal plain.

113. Between the watershed and the flood valley there are extensive plains gently sloping down to the latter. The upper slopes of these plains have sufficient gradient to cause surface erosion and this has washed away the finer soil particles leaving a surface covering of coarse quartz grit which entirely masks the nature of the soils beneath. Trial pits were dug to a depth of four feet six inches in this region and series of soil samples were taken. Twelve such pits were dug and in addition a number of profiles exposed along the banks of dry sand rivers were examined. A field examination of the samples was made which revealed very high pH values. Through the courtesy of the Director of Agriculture a few of the more representative series have been examined by Mr. V. A. Beckley, the Senior Agricultural Chemist, and his reports on these and other samples obtained elsewhere have been received. We should like to take this opportunity to express our appreciation of the expedition with which this work was carried out.

114. There is no doubt that the soils on the upper levels of these plains are in general decidedly alkaline. The tests made at the Scott Laboratories on four series of samples for permeability show that this is extremely poor. The results are in some cases somewhat surprising as the soils contained large quantities of coarse grit, and fine roots were to be found at depths of two feet. There is every indication here of a soda clay. Drainage would, therefore, be very expensive and not very effective.

115. Where these sloping plains approach the flood valley they tend to flatten out and where this happens much of the finer soil particles washed down from the upper slopes have

been deposited. Field examination showed that the pH value, to the depth to which trial pits were dug, did not exceed that which might be expected in soils from arid regions. If the permeability tests which were made only on one series are confirmed by tests made on other samples, permeability is good and drainage would not be difficult.

116. There is thus a possibility that an area sufficiently large to warrant the construction of a branch canal can be found in this region but it will probably be a long and comparatively narrow strip immediately adjoining the flood valley. Conditions in this region are, however, such that no final decision in the matter can be reached until a detailed soil survey has been executed.

117. The only opportunity which we had of seeing the soils on the further slope of the watershed was along the road which runs for eighteen miles in a northerly direction from Garissa to meet Mahoney's road from Bura to Muddogashi. The top of the watershed is reached at about the eighth mile from Garissa and from here the ground has a very gentle slope for the next ten miles. Mahoney's road from this junction to the junction of the branch road from Korokoro, a distance of eighteen miles, has also a gentle slope in a south-easterly direction.

118. The soils along both these roads are of a bright red colour and sandy. One trial pit was made on the further slope about $8\frac{1}{2}$ miles from Garissa but stone was reached at a depth of 39 inches. The soil consisted of quartz grains stained red with a fine silt. The pH value ranged from 6.9 at the surface to 7.2 at the bottom and grass roots were found throughout the depth. These red soils have the reputation of providing the best grazing in the area, but in all probability this is due to the rapid penetration of rain water. This particular series would be too sandy to irrigate but it is quite possible that further down the slope the soils improve as any wash down this would carry with it much of the fine red silt which these sandy soils contain.

119. The remaining area lies south of the point where the branch road from Korokoro meets the Bura-Muddogashi road and stretches from a mile or two south of this point for a distance of about thirty-five miles.

120. It was only towards the end of our tour, when we were returning to the head of the valley before leaving the Tana, that we traversed this road. The field examination of

the soils within the valley had shown that it was extremely unlikely that sufficient irrigable land could be found to utilise all the water available and it was as a final resort that we turned our attention to areas further in the barra where the valley had not been cut out of the old marine floor. It was impossible to stop on the day of our actual journey owing to the condition of our lorries and the entire absence of water along this route, but we were so impressed with the possibilities of this region that a return visit was paid to it from Garissa in order to obtain samples of the soil.

121. Two series were obtained, one (L) a black loam containing quantities of quartz grit and the other (M) a grey sandy loam which was entirely different from anything we had seen before. The report of the Senior Agricultural Chemist on these two series is of such interest that we reproduce it verbatim below :—

"The soil represented by the samples of profile L contains a very large amount of soluble salts but most of it is present as sodium chloride and sodium sulphate. There is ample soluble calcium present to ensure that the clay is largely if not wholly a calcium clay. The lower levels of the subsoil contain very large quantities of gypsum, which, however, could not be accurately estimated in the time available. The effect of this gypsum is reflected in the marked increase in permeability below 27 inches.

This soil contains a great deal of clay. Unfortunately the percolation samples from L1 and L2 were slightly overwetted, forming very tenacious crumbs which left channels. The first permeability figures for these two levels are thus very high. None of the permeability figures are unsatisfactory except perhaps the second figure for L2. I have no doubt this soil would drain readily and permit of the rapid removal of excess soluble salts very quickly.

The soil represented by series M is closely allied to that of series L but contains very much less soluble salts. Probably series M represents what would happen to the soil of series L when under irrigation and provided with free drainage. Although the subsoil below 27 inches probably contains sodium clay I have no doubt that under irrigation and proper treatment this would soon disappear and a well drained permeable soil would result.

I consider both of these soils are suitable for modern irrigation practice".

122. Here again, as throughout our reconnaissance, we are placed in the position of having to generalise from insufficient data. Only two series of soils have been tested from an area which is certainly of very large extent and which, indeed, as we have already suggested, probably forms the head of the great coastal plain itself. There is, however, no reason to suspect large geological changes in what appears to be a uniform plain ; for nearly forty miles along the road there were signs that water penetrated easily and the absence of any road wash or erosion indicated that in general the soil would drain satisfactorily and prove suitable for irrigation. It is from these indications, considered in the light of the report quoted in the preceding paragraph, that we have come to the provisional conclusion, a conclusion which must of course be tested by a proper survey, that there exists in this area sufficient suitable land to utilise any water which can be made available for it.

CHAPTER VII.

JUSTIFICATION FOR AN UPPER TANA IRRIGATION SCHEME.

123. In the two preceding chapters we have explained that our observations have led us to two provisional conclusions : first, that the levels of the country in and around the upper Tana basin are such as to make an extensive irrigation project in that area feasible and, secondly, that there is sufficient suitable land within that area to utilize any supply which can reasonably be drawn from the river. The next question which we have to discuss is whether, presuming that these conclusions are confirmed by a more detailed survey, the construction of such a project would be justified.

124. In India irrigation works are divided into two categories, productive and protective. The former are required to satisfy the criterion that, within ten years of the date of their completion, they shall yield an annual return sufficient to cover the cost of their maintenance together with interest on the capital at charge. As regards the latter, there is no such intention ; the criterion adopted is whether the net financial burden which such a project imposes on the State in the form of charges for interest and maintenance is too high a price to pay for the protection against famine which it may be relied upon to afford.

125. We may say at once that we do not believe that a canal from the Tana would satisfy the criterion of productivity quoted above. As we explain in the next chapter, we see no reason why eventually the project should not become self-supporting. But this cannot be anticipated during the periods of construction and development ; during these periods there would inevitably be an annual loss on the scheme which would have to be borne by general revenues.

126. The question therefore arises whether the project can be justified as a protective work. At first sight this might seem difficult having regard to the isolated location and sparse population of the tract. But the scheme assumes a different aspect if it is regarded in a wider light, as a real endeavour to remove the spectre of future famine which, as the Land Commission has forcibly pointed out, broods to-day over large areas of Kenya.

127. Chapter X, Part III of the Commission's Report, leaves no doubt as to the seriousness of the problem resulting from overstocking in the native reserves. This problem has only been evident since 1920 and it has arisen as a direct result of British administration, the prevention of raids and the checking of cattle epidemics and disease having led to an enormous and rapidly expanding production of live stock. We ourselves saw the devastation which has been brought about by this expansion in the Kamasia Reserve, where conditions are now so appalling that it is difficult to understand how its unfortunate inhabitants continue to exist. And from the Land Commission's Report it appears that this is not an isolated example of rapid deterioration but that such deterioration is common to all reserves where the people are pastoral.

128. No remedy has yet been suggested for this state of affairs, although several palliatives have been put forward. Among these are the culling of surplus stock, reconditioning the reserves, education, clearing areas of bush where tsetse fly breeds to increase the area of grazing lands and the better utilization of animal produce. But none of these seem to us to go to the root of the problem. In the Kamasia Reserve, for example, culling to be at all effective would have to amount practically to the extermination of cattle, sheep and goats, since grazing is already non-existent and live stock is kept alive only by browsing and on such food as branches, which are lopped off for them, afford. It is probable that in other areas also where desert conditions have arisen as a result of overstocking, culling to be effective would have to be so drastic that if properly carried out it would deprive the people of their only means of livelihood. Even reconditioning and the clearing of bush are likely to prove only temporary palliatives if, indeed, they do not lead to a vicious circle, in which increase of grazing leads to increase of stock, thus rendering the work done infructuous. The real problem is not how to increase the area of grazing but how to reduce stock to the numbers which the land can carry without reducing the people to destitution in the process.

129. It is these considerations which lead us to suggest that the only real remedy for overstocking is to change the habits of the people and gradually to convert them from a pastoral to an agricultural life. This will undoubtedly be a long and difficult task but it should not prove impossible; the whole history of the world shows the tendency of pastoral peoples to take to agriculture where conditions are favourable

and in modern days an encouraging example can be drawn from India where the pastoral nomads who inhabited the deserts now irrigated by the Punjab Colony canals have been settled in these colonies and have been found to take readily to agriculture.

130. Nothing is, of course, further from our intention than to suggest that large numbers of pastoral people should be taken from the reserves and settled on the Tana with instructions to cultivate the land; such action would lead to chaos and invite certain failure. At present the African has no idea either of permanent cultivation or of the individual ownership of land, both of which are essential features of any irrigation scheme. The process will have to be very gradual and the first step should be to develop smaller local irrigation schemes wherever possible where not only the cultivators but also the officers of Government, administrative, agricultural and engineering, can obtain their initial training in irrigation administration and practice. It cannot be too strongly insisted that irrigation does not merely mean the bringing of water to the fields; it involves new methods of cultivation, new principles of land tenure and indeed, a whole new agriculture. It is in order to make a start in this direction that we have strongly recommended that the possibilities of an irrigation scheme from the Perkerra River in the Kamasia Reserve should be investigated and that, if the investigation proves satisfactory, a project should be prepared and constructed. We have advocated this project as a purely protective work, designed to offer an alternative means of livelihood to the people in the reserve, conditions in which are now so bad that it seems likely that the work can be entirely financed from the capitalised saving in famine relief. Later it may be found that there are further possibilities for irrigation both in this reserve and in others; we note that the District Commissioner suggested to the Land Commission that such possibilities existed in the case of the West Suk Reserve. All such possibilities should be investigated as soon as possible and, if found promising, be developed as soon as money and, which is quite as important, trained staff are available.

131. We cannot conceive, however, that any of these schemes will provide large areas of irrigable land. They will give a certain amount of relief but their main object will be to provide training grounds and to produce arable farmers, with a conception of a permanent agriculture and with some experience of irrigation, who will be available subsequently as

a nucleus for colonisation on a larger scale. It has been found in India that the cultivator of irrigated land is invariably ready to move to any part of the country where more or better land or better irrigation facilities are available and the process is made far easier for him where, as is done in the Punjab and as we consider should eventually be done in Kenya, colonisation is effected not by individuals but by villages. Each village in the colony has a parent village in the older country from which its colonists are drawn, the colonists thus being either relations or friends, ready to come to one another's help if necessary in the new conditions in which they find themselves. The formation of villages on the smaller irrigation schemes in the reserves should be effected with this ultimate object in view.

132. It may be felt that to proceed on these lines is to put the development of the Tana into the somewhat distant future. This is true and it is fortunate that it is so as a long time must in any event elapse between the date when a full survey of the area is sanctioned and that on which its colonisation can be seriously taken in hand. If the survey is done on the lines which we subsequently recommend it will take three years; construction in such a locality cannot be rushed and may well take six years to complete. In other words, even if it were decided to proceed at once it would be some ten years before the first water could be brought on to the land.

133. Concurrently with the commencement of construction, and provided that the detailed soil survey shows the soils to be suitable for the purpose, the Agricultural Department should begin operations in one of the level plains adjacent to the flood valley; water for irrigation being obtained by pumping from the river. Experiments should here be made to ascertain which crops and which varieties of them are most suitable for cultivation. The farm labour required should be drawn from the local tribes, the Wa-Pokomo and the Somali, and, as experience is gained, an attempt might be made to settle selected members of these tribes in the vicinity where they could be supplied with water and where the first lessons in colonisation could be obtained. The Wa-Pokomo are already agriculturalists; the Somalis are an exceptionally quick and intelligent people, one or two at least of whom have already shown their willingness to settle down to agricultural pursuits where suitable opportunity offers. We attach considerable importance to the association of the Somali with

the scheme, which will be constructed in land which he is apt to regard as his own preserve ; he will soon learn that it is entirely to his benefit and that it not only provides him with an alternative means of livelihood but with a ready market for working bullocks and manure. These, however, will be only preliminary measures ; not until construction is complete and canal water available will the Agricultural Department be able to begin work on the higher land with a view to the commencement of colonisation proper.

134. This lengthy period between the inception of the scheme and the commencement of cultivation on it is common to all large irrigation projects ; such projects have always to be considered in the light not of the needs of the day but of those of a decade or more ahead. In Kenya it is necessary to look even further forward. If, as we believe, some 200,000 acres of land can be irrigated from the Tana, it will probably be twenty years before the whole area is occupied ; the colonisation of 10,000 acres a year will be quite as much as the officers in charge of the scheme will be able to tackle efficiently having regard to the initial ignorance of many of the colonists. Thus the project has to be regarded in the light of the requirements which are likely to exist not in the next five years or so but between 1945 and 1965. It is a long while ahead but unless the foundations are laid now the edifice will not be ready when it is needed.

135. From our perusal of the Land Commission's Report and from our own observations we believe that an irrigation project on the Tana can be fully justified as a protective work. It should, as we have said, ultimately prove self-supporting, and even in the interim any loss incurred in its working will to some extent at least be met by the saving in famine relief, which will inevitably have to be given in ever increasing amounts as grazing fails, and by the value to the country in such circumstances of a large area in which the crops are assured whatever the nature of the seasons. Having regard to the conditions which are rapidly being established in the various reserves and to the urgent need for ameliorating them we have no hesitation in saying that in our view, provided that a detailed survey confirms our provisional conclusions as to the amount of water and land available, the Tana River and the country on its banks constitutes the most valuable asset which the Government of Kenya to-day possesses.

CHAPTER VIII.

CONSIDERATIONS AFFECTING THE SCHEME.

(a) FINANCIAL.

136. It is only with some hesitation that we have decided to devote a section of this Report to the financial aspects of a possible irrigation scheme from the Tana River. It will readily be realized how impossible it is, having regard to the inadequacy of the data and the uncertainty of many of the most important factors, to give any reliable estimate of cost; indeed, until further data and gaugings are available, it cannot even be said what will be the most appropriate size for the canal. But on the other hand we feel that without some indication of probable costs and probable financial results our Report would be of little use; Government will necessarily require to know, before proceeding further, whether our proposals involve hundred of thousands, or millions, or tens of millions of pounds. We propose, therefore, to give what indications we can on these questions, adding the warning that they can in no wise be considered as firm estimates.

137. As we show later, when we come to deal with the hydraulic data available, it seems likely that 2,000 cusecs (cubic feet per second) can be regarded as the normal minimum supply of the Tana in all but exceptionally dry years. This minimum supply occurs in the season after the small rains; a higher supply would naturally be anticipated in the season after the big rains. In the absence of gaugings we put this higher supply at 2,500 cusecs, although we consider it quite possible that the gaugings, when made, will show this to be an underestimate. If so, the prospects of the canal will be correspondingly improved.

138. We assume a duty of water of eighty acres per cusec of head discharge. This may seem to be a conservative figure but we prefer to err on the safe side having regard, first, to the fact that the canal will be a very long one with the result that channel losses will be high and, secondly, to the initial inexperience of the cultivators. It will be a long time before they learn to use water as economically as cultivators in countries where irrigation has been practised for centuries. On this basis, the water available would suffice for 200,000 acres in one season and 160,000 acres in the other, or 360,000 acres in all, of which 160,000 acres would be double-cropped. From what we have seen of the country it seems probable that suitable land will be commanded to this extent.

139. As regards cost, the only way of arriving at a figure is by comparison with similar works elsewhere. For this purpose we have examined the cost of all works in India which irrigate between 150,000 and 500,000 acres. There are nineteen such works, but twelve of them are useless for purposes of comparison. Of these, nine are inundation canals which are not provided with headworks and draw a supply from the parent river only in flood time, one is a storage work with two large masonry dams, one, though irrigating only 300,000 acres itself, carries a large additional discharge with which it feeds another system; while one is a system of small canals rather than a single canal. The other seven may be regarded as normal. They irrigate on an average 250,000 acres each, the average capital cost being £3 an acre, the gross receipts (excluding land revenue) 8/- an acre, the working expenses (excluding interest) 3/6 an acre and the net revenue 4/6 an acre.

140. The works thus averaged include one of the most expensive and two of the cheapest work in India and there is thus a wide variation between them. Indeed, only one of them is really directly comparable with a canal from the Tana, this being the Jamras Canal in Sind. It is a desert canal, and was constructed in previously uninhabited country; it has headworks not very much larger than those which would be required on the Tana: it is a long canal, being 117 miles long with a head capacity of 3,200 cusecs, and it irrigates 250,000 acres. The low acreage as compared with the head discharge is due to the fact that for half the year the canal receives only a very limited supply of water. It was opened in 1901. The cost up to date, including all extensions and improvements since it came into operation, has been £760,000 or about £3 per acre irrigated, which tends to confirm the figure obtained as the average of the cost of the seven works already mentioned.

141. The next question which arises is the extent to which this figure is applicable, first, to present day conditions and, secondly, to Africa. As regards the first point, labour rates have, of course, risen considerably since the Jamras Canal was constructed. On the other hand mechanical appliances have made economies possible in many directions and in a country such as Sind, where a huge imported labour staff had to be maintained in an uninhabited, unproductive and almost waterless desert, it is probable that the excavation of the canal, which is always one of the chief sources of expense, could be

done as cheaply to-day by mechanical means as it was actually done by hand in the closing years of the last century. All items considered, it would probably cost more, but not very much more, to build the Jamras Canal to-day than it cost in 1900 but it can safely be said that it could be built in its original form for the sum at which its capital account now stands, included in the latter being the cost of the various extensions and improvements made during the past thirty years as irrigation developed. In other words, £3 an acre should suffice in India to construct a canal to-day of the size and in the situation of the Jamras Canal.

142. A much more difficult question to decide is what would be the corresponding rate if a similar work were to be constructed on the Tana. All labour would have to be imported from other parts of the Colony, as the Wa-Pokomo are comparatively few in numbers and they would be fully occupied in growing crops to feed this labour staff. It would, in the circumstances, be uneconomical to utilize them for other purposes. There are, so far as we know, no tribes in Africa who specialise in unskilled labour as do, for example, the Lunias of Partabgarh in India, who will proceed to any part of the country to undertake earthwork and who are extraordinarily efficient at it as the result of long practice and tradition. The African, if he is to approach the Indian in output, will have to learn new methods and the use of new implements. It will certainly be found advisable to reduce the labour staff to a minimum by the use of mechanical excavators and the like (which, unlimited free fuel being available on the spot, should prove economical to work) but even this minimum will be considerable and its cost, measured in terms of the rate per unit of output, is likely to be heavy.

143. The cost of supervision will also inevitably be much greater in Kenya than in India where Indian subordinate supervisory staff, properly trained in engineering schools and colleges, is available in almost unlimited quantity and at small rates of pay. The vast bulk of the immediate supervision of work, its measurement and the preparation of bills for it are usually entrusted to staff of this nature, drawing an average of perhaps £5 or £6 per month. The same general remarks apply to the clerical, accounting and drawing office staff, the average pay of which is even lower. It may not improbably prove economical to import trained staff of this kind from India where the market is seriously overstocked. The senior engineering staff will also have to be imported, as it will be

essential to have on this work men with previous experience of similar construction. Imported staff is naturally expensive, and supervision will certainly be a heavy item in the cost of the scheme.

144. In dealing in a later section with the question of the materials to be used in construction we suggest that the utmost use should be made of those available in the locality. A certain amount of cement and steel will, however, have to be imported, the largest items being probably the gates and gearing required for the headworks, as will also the plant necessary to reduce the amount of manual labour required. The isolated location of the Tana and the difficulties of transport will add considerably to the cost of all such materials and plant.

145. For all these reasons we doubt whether it would be prudent to place the cost of the canal at a figure less than double what it would cost in India, that is to say, at less than £6 per acre annually irrigated. Assuming 360,000 acres as the area to be irrigated, the total cost of the canal would, on this basis, amount to £2,160,000. This is probably somewhat on the high side as the Jamras Canal, with which the comparison has been made, is, as already mentioned, very large when compared with the area irrigated by it and a canal from the Tana would actually irrigate a larger area with a smaller channel. Taking this point into consideration the cost of a canal from the Tana might be put, in round figures, at £2,000,000.

146. Coming now to the financial results to be anticipated, there seems to be no reason why an ultimate acreage rate of about 12/- should not be visualised; this will represent both water rate and seignorage on the land allotted to the cultivator. We regard it as very important that, as irrigation develops in Kenya and individual ownership of land comes to be recognized, it should also be recognized that Government is the real superior owner of the land and that all land tenure is subject to the payment of seignorage. We think that it will be advisable, in order to inculcate this lesson, to divide the gross rate into two parts, 2/- representing seignorage which will be payable on 200,000 acres, this being the actual area of land to be irrigated, and 10/- representing payment for the irrigation facilities provided which will be payable on 360,000 acres, the annual area of irrigation, double-cropped land paying twice.

147. Out of these rates will have to be paid, first, the charge for interest on and redemption of capital which together may, for estimate purposes, be assumed to amount to 5 per cent and, secondly, the maintenance charges on the scheme which average 3/6 an acre in India but may well be as high as 5/- an acre in Kenya. The financial result of the scheme would then be as follows :—

	£	£
Seignorage 200,000 acres at 2/- per acre ...	20,000	
Water rate 360,000 acres at 10/- per acre ...	180,000	
	<hr/>	200,000

Deduct—

Interest and Redemption 5 per cent of £2,000,000 	100,000
Working expenses 360,000 acres at 5/- per acre 	90,000
	<hr/>
Net Profit ...	10,000
	<hr/>

There seems to be no reason why eventually the scheme should not become self-supporting and even return a small profit to Government.

148. This does not mean that we regard the project as a productive one; it would certainly be many years before the full revenue would be obtainable and in the interim the scheme would have to be run at a loss. As we have explained, the project is essentially protective in character, but a protective scheme which promises ultimately to pay for itself is an exceptionally favourable one. Most of the protective works in India do little more than pay their annual working expenses, excluding interest, and some of them do not even do this. They are constructed partly to save Government the cost of relief measures but mainly to remove from the land the shadow of famine and of the manifold evils which famine brings in its train.

149. A rate so high as that suggested above could certainly not be imposed at once; a much lower rate would have to be levied in the early stages of the scheme in order to encourage and facilitate development. Experience has shown that it is undesirable constantly to change a water rate as such action gives the cultivator a feeling of insecurity regarding the future; it is now the usual practice to publish the full rate

at once but to collect only a fraction of it during the years of development. No remission should be given in the case of the seignorage, but the water might be given free for the first two years and rates of 2/-, 4/-, 6/- and 8/- an acre charged thereafter, the rate being enhanced every two years. The full rate of 10/- an acre would thus come into force in the eleventh year. The cultivator, under this system, realizes that he is obtaining a temporary concession and that his rate will increase up to a known maximum; as the rate increases so does his experience and therewith his profits, so that the increments probably represent no additional burden. Both the seignorage and the maximum water rate should, however, be liable to enhancement after a term of, say, thirty years. Seeing that the work will be a protective one, rules will further be required regulating the sale and transfer of land by the colonists, in order to prevent its falling into other hands.

150. As we have explained in the chapter in which we have dealt with the justification for the project, it seems to us certain that, with the general deterioration of the reserves, expenditure on famine relief and remissions of taxation will increase largely in the future. It is not usual to credit an irrigation work with savings under such heads which may be realized elsewhere but it is pertinent to point out, first, that they will undoubtedly accrue and, secondly, that the effect of such savings on the Colony's exchequer is exactly the same as if the sums in question were revenue receivable in cash. Were it possible to frame an estimate of their amount and include it in the financial forecast of the scheme, the latter would, of course, be much more favourable than we have depicted it above.

151. In advocating what is, in essence, a new system of taxation, we have also to consider its effect on the system already in force. It is no part of our duty to discuss the advantages or disadvantages of the hut tax in general, but, in so far as irrigators from Government works are concerned, we are convinced that it would be a grave mistake to levy hut tax in addition to seignorage and water rates. In such cases there should be a definite transfer from the hut to the land. The hut tax involves a stated cash payment every year and this the cultivator could only secure by growing food crops in excess of his needs, by growing money crops, or by leaving his fields for a period and earning money elsewhere as a labourer. The last course must definitely be excluded; cultivation under irrigation is essentially an all the year round

occupation both for the cultivator and for his family and to leave the fields untended for a period would inevitably lead to their deterioration. The imposition of a hut tax would therefore dictate either the extent or nature of the crops grown. This we regard as most undesirable. The object of a protective scheme is twofold, to produce food crops and to accommodate the maximum number of persons who can earn a living from the land available. In the cost of living is included, of course, the rent of the land on which and the payments for the water with which the crops are produced. It is useless for a cultivator on the scheme to be forced to produce crops in excess of his needs as defined above or crops which he grows only to convert into money in order to pay a tax which ultimately has to be used to provide relief for persons who might otherwise have been accommodated on the scheme.

152. Actually, of course, this proposal will not entail the remission of hut tax throughout the area. We do not visualise a condition in which each man's holding will be rigidly restricted to the area necessary to provide for his family's bodily wants. In many cases he will hold more and will bring in relations or friends to assist in cultivating the balance. Remission of hut tax will apply only to the holder of the land who pays the seignorage and water rates; others living on the same land will be liable to normal taxation.

153. There is one other question which vitally affects the financial prospects of the scheme, namely, that of marketing. Here again Kenya is bound to suffer at the outset owing to the lack of a properly developed organization for the purpose such as exists, for example, in India. In older times the Indian Government collected its dues in the form of grain, taking a percentage of the yield of the crop; this is still done by many large landlords and in backward areas, such as Baluchistan, Government still collects revenue in this form. It has only been with the creation of a complex agency, extending from the village grain dealer to the merchant exporter, that collection in cash has become possible. The absence of such an agency involves two dangers. On the one hand, with no competition in buying, the purchaser can practically dictate the price at which he will take surplus produce and, on the other, the cultivator must sell, whether he wishes to or not, at this price to the extent at least which is necessary to enable him to raise cash to pay his Government taxation. We had evidence that the Wa-Pokomo suffer to-day from the effects of such a restricted market.

154. The question is a difficult one and we think that it will be found worth consideration whether, in the early years of the scheme and until a real competitive non-official agency is established, Government should not be prepared to accept their dues in produce, marketing the produce themselves. They would have facilities in the matter beyond those available to any private dealer and it is by no means improbable that they would, in this way, realize more than if the collection were made in cash. We should deprecate Government entering into a commercial undertaking of this kind were normal conditions established or were it proposed as a permanency, but as a temporary measure in the initial stages of the scheme it appears to us to be unobjectionable and, indeed, to have many advantages.

155. Throughout this chapter we have assumed that any scheme sanctioned would be maintained and managed by Government agency. We should not have thought it necessary to refer to this point had not the Land Commission in their report referred to a possible scheme for the Tana under which, while the growing of the crops would be left in the hands of the natives, the irrigation works would be managed by a large company with adequate resources. We do not think that in any event irrigation schemes should be managed by any agency other than Government; they affect too closely not only every aspect of Government's land policy but the very lives of the people themselves. It is essential that they should be managed with an eye to the betterment of the people rather than to the cultivation of crops which bring in an immediate return, and Government must have the power to fix water rates, to make rules, to grant remissions and generally to act in the interests of the natives in a way which could not be expected of a company, the main object of which would be the presentation of a favourable balance sheet. In this particular case, however, the question hardly arises; the scheme will be financially unproductive and there will be no inducement for a company to come forward to undertake its management.

(b) AGRICULTURAL.

156. The African has, through centuries of experience, acquired a considerable knowledge of soils, seasons and crops, but this knowledge is suited rather to conditions of shifting cultivation on rain-fed areas than to the artificial seasons and the permanent occupation of the land which irrigation imposes. In his primitive state he has been content merely

to grow sufficient food crops for his own requirements. He pays little attention to keeping his land free from weeds since he has always been accustomed to move on to fresh areas when the initial fertility of the land is exhausted or when weeds take possession of the ground. It is only since the advent of settled administration, assisted maybe by the example of European farmers, that he has realised the need for money and the fact that he can obtain this by selling the produce of the soil. With the exception, however, of a few areas where the pressure of population has become high, he has made no effort towards developing an agriculture based on permanent occupation of the land. His implements of husbandry are very primitive and he is entirely dependent on manual work. It is true that in some areas a few people have purchased and use ploughs for preliminary cultivation, but these are so heavy and expensive that it is only those few who have acquired wealth who can afford either to purchase them or to keep the necessary number of working cattle to draw them.

157. There is no doubt however, that the African is very quick to take up anything new. One has only to look at the way in which crops such as groundnuts, sweet potatoes, cassava and maize, all of which are of American origin, have spread throughout tropical Africa. In many parts these have entirely replaced the crops which were previously cultivated and have now become staple food crops in the areas where they are grown.

158. Irrigation agriculture, however, implies much more than the introduction of a new crop. It is a highly developed art and to be successful necessitates a concentration of continued effort on a defined area of ground. Land assumes a new and greatly enhanced importance on account of the water supplied to irrigate it. The water has to be paid for and since each cultivator has only a limited area on which he can use it, this area must be maintained in a high state of fertility. It must be supplied with available plant food and its mechanical texture must not be destroyed.

159. Much more thorough preliminary cultivation is consequently necessary than that to which the African is accustomed, and adequate manuring of the land becomes essential. Irrigation water must, moreover, be evenly distributed, which means that the land must be properly levelled and that irrigation beds and field channels must be properly formed and aligned. All agricultural work must be carried out with

expedition, and everything possible must be done to utilize the moisture in the soil, whether that which remains after the harvesting of a crop or that applied by irrigation. Under arid climatic conditions moisture in the soil when it is bare of crop soon disappears.

160. In order to achieve this end draught animals must be employed to draw implements, and it is essential that each cultivator should possess his own as every available animal is fully employed at the commencement of the cultivation season. Since holdings are never likely to be large and these draught animals have to be fed, it is further essential that no more animals should be kept than are absolutely necessary. All implements must therefore be confined to those which can be drawn by a single pair of bullocks. The ploughs which are at present being used by the natives in Kenya would be useless here; in the first place they cost too much money and, in the second, they require at least three pairs of bullocks to draw them and two persons to work them. Similarly levelling boards, cultivators and the like must all be adapted to the draught of a single pair of bullocks.

161. From what has been said it will be seen that all the cultivation of the land except weeding, guiding water and harvesting will have to be done with the aid of draught animals. This is men's work and cannot be left to women to do as is now so often the case with native cultivation in the reserves.

162. Since the canal is to be a protective work there will be no question of growing money crops for sale. The main feature of the farming will be to grow essential food crops such as cereals, pulses and oil-seeds together with small areas of vegetables and condiments and possibly also sufficient economic crops to supply domestic needs such as fibres for making plough ropes and the like.

163. It may be taken for granted that cereals will be the main irrigation crop and in the early stages of development it will probably be necessary to concentrate on those cereals which can stand heavy watering and are not seriously affected by the presence in the soil of a certain amount of alkali. In any arid region which is brought under irrigation, alkali salts are bound to be present, and in any scheme in such a region, drainage channels are as essential as irrigation channels. It is necessary to get these drains working as soon as possible in order to wash out the salts and thus in the early stages

of development more water will have to be used than will ultimately be found necessary. For this reason it is probable that *Eleusine coracana* Geart will, in the earlier years of the scheme's development, be largely grown.

164. It is anticipated that the single crop lands will receive at least a six months' and probably a seven months' supply of water. This should be an ample period in which to grow a crop of cereal and to take a catch crop of a short duration pulse immediately afterwards. If short duration varieties of simsim can be acclimatised, these also can be grown as a catch crop.

165. We have referred elsewhere to the length of time which must elapse before a canal from the upper Tana can be completed and have emphasised the importance of developing meanwhile any promising irrigation areas in the native reserves since these will form training grounds for the officers to be employed on the major scheme. They will also teach natives how to manage small irrigated holdings. We have also referred to the necessity of starting an adequately staffed agricultural station in the commanded area some time prior to the completion of the project and we propose to do no more than mention here the type of agricultural research which will have to be carried out at that station.

166. At the present time the country which will be commanded by the canal is desert bush and no crops have ever been grown there. It is not known whether any of the varieties of crops now grown by the Wa-Pokomo in the flood valley will prove suitable to the entirely new conditions which will be created under the scheme.

167. The main work of the station must therefore lie in the introduction of new kinds and varieties of essential food crops. Those which are successfully acclimatised will have to be further tested to find out in what seasons of the year they can be grown and how long they take to mature in different seasons. It is only when this knowledge is available that it will be possible to frame a suitable rotation of crops both for the single and for the double crop lands which will make the fullest use of the irrigation water available. Even when varieties of crops have been acclimatised and a detailed knowledge of the capabilities of each variety has been acquired, there will still be scope for improving and modifying varieties by selection and for testing strains so selected for yield.

168. Though an agricultural officer with irrigation experience will be in charge of this station it is certain that it will be found that methods, which have proved suitable elsewhere, will have to be modified to meet the new conditions. The nature of these modifications can only be discovered by experience. Research will be necessary in this direction in addition to definite trials of crops and it may be some time before a suitable agricultural practice is evolved.

169. The fact that we have dealt only briefly with this question of agricultural research is due solely to the fact that it is useless to theorise without adequate data in a matter of this kind and must not be regarded as indicating that we consider it of secondary importance. On the contrary, it is probably the most important work on the whole undertaking, and on the way in which it is done will depend the success of the project. Further, it must be done early, since it is evident that, before the canal is opened, work on the station must have reached such a state of development that its officers will be ready to receive the first colonists, to supply them with seed and generally to supervise their methods of cultivation.

(c) HYDRAULIC DATA.

170. Hydraulic data regarding the Tana River are practically non-existent. Mr. A. D. Lewis, in his report of 1925 on Kenya water supplies, forecasted a dry weather supply of 2,000 cusecs below the confluence with the last major tributary. Until July last year there was no gauge of any sort on the upper river; one was then fixed at Garissa and a current meter discharge taken on July 1st showed that a gauge of 1.5 feet corresponded to a discharge of 1,635 cusecs. The only other data on record are a discharge taken near the sea in 1924 which, having been taken within the tidal reach, is valueless, and an estimate, which seems to have been little more than a pure guess, of the flood discharge at the same spot.

171. It was perhaps fortunate that our visit to the Tana was made in a season which, consequent on the failure of the big rains of 1933, was one of very low supply; the local information which we received was to the effect that it had never been so low over a continuous period within the memory of man. We were consequently able to take what may be regarded as a minimum discharge. There is considerable difficulty in taking a satisfactory discharge at this season owing to the extreme shallowness of the river which tends to form backwaters and thus throw part of the section out of action.

Our first attempt was made above the Garissa ferry on March 15th, on which date the gauge stood at 0.93; having no current meter (nor, in such shallow water, would current meter readings have been reliable) we utilized surface floats in the form of bottles, filled with water until only their necks were visible, for the purpose. The discharge so obtained worked out as 900 cusecs, but the accuracy of the result was, we felt, open to considerable doubt, the run of the floats being seriously affected by cross currents and backwaters. Two days later, therefore, the gauge remaining constant, we made another attempt, this time at the ferry itself. Except for a backwater immediately under the left bank the section was a good one and satisfactory observations were possible. The resulting discharge worked out as 995 or, say, 1,000 cusecs. To within a reasonable degree of accuracy this figure may be taken as representing the minimum discharge of the river.

172. The determination of three other discharges is essential for the preparation of any irrigation project from the Tana, namely, the low water discharge which can be relied on in a normal year, the low water discharge which can be anticipated in the season after the big rains and the flood discharge of the river. Information as to these discharges is entirely lacking. It is extremely difficult for anyone who has not been making observations for this particular purpose to say with any accuracy to what level a river falls at particular seasons of the year, even though he may know the river well. An officer with considerable knowledge of the upper Tana, whom we regard as particularly observant, gave it as his opinion that, in a normal year, the river does not fall to a lower level than that corresponding to 2.5 feet on the gauge, which would probably connote a discharge of 3,000 cusecs. We think that this is an over-estimate but it seems quite probable that Mr. Lewis' figure of 2,000 cusecs, which would correspond to a gauge of about 1.8 feet, is not far from the mark. The correct figure can only be determined by further observations.

173. The second important factor is the normal minimum discharge which can be relied on during the season after the big but before the small rains, this being naturally larger than the normal annual minimum, which occurs after the small rains. On this point also data are urgently required. As explained earlier in this chapter we have tentatively assumed a discharge of 2,500 cusecs for this period of the year.

174. As regard the flood discharge the data available is, if possible, even more scanty and any calculation at the present stage can only hope to give the general order of the result to be expected. There are still visible on certain trees the marks left by the high flood of 1930, which correspond roughly to a gauge of 17 feet. We questioned an intelligent native, aged about fifty years, who had spent his life in Garissa; he told us that he remembered four floods of about the same height but none higher. His father, however, had told him of a great flood which had taken place during the former's lifetime and had shown him the point which he had reached in a canoe when it was at its height. This point proved to correspond with a gauge of about 20 feet. We place some reliance on this statement as the point in question was one which it was quite impossible to correlate with the 1930 flood marks by eye and, had it been a mere guess, it might well have given an impossible instead of a perfectly logical result. Most rivers have three stages of flood, the normal annual flood, the high flood which occurs once in ten years or so and the abnormal flood which may not occur more than once a century. It is quite reasonable to suppose that, in the case of the Tana, the second stage is represented by a gauge of 17 feet and the third by a gauge of 20 feet.

175. To proceed from the gauge at Garissa to the discharge is at present a question of indirect deduction rather than of accurate calculation. A cross section taken across the flood valley showed the water spread at a gauge of 20 feet to be well over two miles wide. It comprises a long strip of flooded land, mainly covered with cultivation, on the left bank, then the main channel of the river, then a wide stretch of forest and finally a smaller channel, much overgrown, under the barra on the right. Unfortunately the flood marks of 1930 are no longer sufficiently well defined to enable a flood slope to be determined, but, adopting the surface slope at low water as the flood slope, the main channel would discharge about 43,000 cusecs with a mean velocity of about eight feet a second. The velocity thus calculated is at least much what might be expected in a section of this nature.

176. To this figure must be added an allowance for the flooded area of cultivation and forest and for the subsidiary channel on the right of the flood valley. The actual flow through the flooded area referred to must be very small owing to the thickness of the growth, and even in the case of the subsidiary channel it cannot, for the same reason, be large.

Although these constitute by far the larger portion of the flood section it may well be doubted whether between them they contribute more than 20 per cent of the total discharge. In other words it seems probable, on the meagre data available, that the flood discharge of the Tana at Garissa is of the order of 55,000 cusecs.

177. From what has been stated it will be realized that it is of the first importance that more accurate information should be available regarding both the gauges and discharges at Garissa. The matter is not without difficulty as Kenya has only one Hydrographic Surveyor, whose headquarters are at Nairobi, distant some 250 miles by the extremely bad Kitui track (it took the lorry with our baggage five days to cover the distance) and over 400 miles by the better track *via* Isiolo. He cannot, therefore, be expected to make frequent trips to Garissa for the purpose of taking discharges. But we think that, with the co-operation of the Administration, the difficulty can be overcome. The actual taking of a discharge requires no technical knowledge, consisting merely in observing soundings and clocking the time which it takes for floats released in the river to cover a measured distance. We feel sure that the District Officer would be prepared to undertake these observations ; it would entail only a couple of hours' work about once a month. We suggest that the Hydrographic Surveyor should proceed to Garissa and explain to the District Officer there what is required ; the observations, when made, can be sent to Nairobi where the discharge can be calculated from them. In this way it should be possible to calibrate the Garissa gauge and to plot a curve showing the discharge corresponding with each reading of the gauge.

178. The Hydrographic Surveyor should also select suitable trees (or, if preferred, erect posts at intervals) and the District Officer be asked to cut marks on these showing the height reached by the water in flood time and the date ; this, again, presents no difficulty as the muddy water of the Tana leaves its own distinctive mark which remains visible long after the flood subsides. The Hydrographic Surveyor could then visit Garissa from time to time and ascertain the levels of these marks, obtaining thence the flood slope of the river from which it should be possible to make a reasonably accurate estimate of the flood discharge of the main channel.

179. In Chapter II (b), in which we dealt with the rainfall in the upper portion of the basin, we commented on the paucity of the information available on this subject also. We

consider it very desirable that at least two more rain gauges should be established on the river, one above and one below Garissa, and we suggest Burdali and Bura as suitable places. There should be no difficulty in finding at either of these places someone sufficiently intelligent to make the necessary readings. We have suggested Bura as a rain gauge existed there before the headquarters of the district were moved to Garissa and the past readings are therefore available.

180. At present there is no means of telling what difference there may be between the rainfall in the barra and that in the flood valley and for this purpose a further gauge is necessary. We suggest that it be established in the barra opposite Burdali and not less than five miles distant from the river, and that a line through the bush be cleared to make it accessible. The readings of this gauge will be of great importance when the drainage crossings in the upper reach of the canal come to be designed. If it cannot be otherwise read it will be well worth while to appoint an intelligent Tribal Retainer for no other purpose. Further, if and when a survey is made, additional rain gauges should be established in the barra wherever they can be conveniently read.

(d) POINTS AFFECTING DESIGN.

181. Seeing how necessarily cursory was our inspection of the country and how uncertain are still many of the factors relating to the scheme, it would, of course, be premature to deal in any detail with the design of the works necessary for the irrigation of the upper Tana barra. But it may be of use to enunciate certain general principles which are likely to be applicable whatever may be the final alignment selected.

182. As regards the materials to be used, transport charges will inevitably be high and every effort should be made to use such materials as are available in the neighbourhood. There is an abundance of stone near the headworks and in the upper reach of the canal and experiment at Garissa has shown that satisfactory bricks can be burnt from earth locally obtained. Gravel and coarse sand are found at intervals all down the alignment as far as Korokoro. Moreover it is probable that there is sufficient kankar lime in the vicinity to obviate the need of Portland cement for anything except reinforced concrete and pointing. In this way it should be possible to restrict imported materials to a small quantity of Portland cement and the steelwork necessary for gates, gearing and reinforcement.

183. Dealing next with the headworks, the site chosen for them must fulfil three conditions :—

- (a) It must be sufficiently high up the river to ensure adequate command.
- (b) It must not be so high as to necessitate an excessive length of rock cutting in the head reach of the canal.
- (c) It must be situated in a reach where the flood valley is of moderate width, so as to obviate the construction of extensive training works to prevent the weir being outflanked.

184. The first two conditions confine the site of the headworks to the reach between Dakacha and the rapids, and fortunately the third condition can also be satisfied in this reach. We examined the river above Dakacha and some $2\frac{1}{2}$ miles up there is an almost ideal site for the purpose. The distance from barra to barra is well under half a mile and probably not more than 600 yards; the river itself flows in a straight, well defined channel under the left bank. Unfortunately our discovery of this site coincided with the arrival of the first floods so we were unable to take soundings or measurements, but there is every reason to believe that it is suitable in all respects. A weir could be constructed of any length required, the right flank being tied by embankments of moderate length into the barra behind.

185. It is too early, in the absence of soundings, flood levels and other essential data to say definitely what type of weir will prove most suitable. Modern practice inclines to the construction of barrages on rivers of this magnitude, that is to say, a weir at a low level spanned by a bridge between the piers of which gates can be lowered to block the stream and divert the water into the canal, the gates being raised during floods which are thus free to pass down the river under the bridge. *Prima facie*, this would be the best design for a weir on the Tana but we see no reason to exclude the possibility of an open weir, with scouring sluices on its left flank, if comparative estimates show that any considerable saving can be effected by the adoption of this type of work. It will have to be remembered in the design that the Tana when in flood may carry large trees and that not only must the spans be wide enough to let them through but that the gates must be capable of being raised to such a height as to pass them safely below. Whether a barrage or scouring

sluices be adopted it would be unwise to have openings of less than fifty feet clear span and alternate piers should be elongated by being continued upstream for some distance so as to turn a tree arriving broadside on and thus pass it lengthwise through one of the openings.

186. A favourable feature of the site proposed is the fact that the flood valley in the reach above it is devoid of human habitation. This will enable water to be ponded up without inconvenience to anyone. Once the probable maximum flood has been calculated, the works should be designed to pass that discharge with only a moderate afflux, but a considerable freeboard should be allowed both on the headworks themselves and on the training works connected with them, thus allowing for a higher afflux if necessary. A small increase in afflux causes a large increase of discharge and a factor of safety is thus introduced to counterbalance to some extent the inevitably meagre nature of the hydraulic data available.

187. The canal head regulator should be constructed with a well raised sill so as to exclude from the canal the bottom water in which the heaviest silt is carried.

188. The head reach will entail very careful designing as it will probably have to be excavated largely from rock and heavy stony soil. It should be given as high a slope as possible so as to obtain a minimum section and a minimum amount of excavation. There is probably a fall of 20 feet between the site selected and Dakacha which will be useful for the purpose. It will be a nice question for the designer how much fall he can allot to this reach without an excessive sacrifice of command lower down; until the surveys have been completed it is impossible to offer a solution or to do more than point out that the problem will arise. A very close contour survey of this reach will be required before designs are prepared so as to ensure that the most economical alignment is chosen.

189. Turning now to the design of the canal proper, the form of the channel will have to be carefully adapted to the soil through which it passes, the characteristics of the soil being ascertained by means of experiments on specimens collected during the general soil survey. To explain the need for such experiments we may mention that in parts of the area the soil is consolidated to an extent which makes it almost rock-like to cut and at first sight it might appear that in such areas the canal could be given steep side and bed

slopes. But we found to our surprise that on contact with even the smallest quantity of water this rock-like soil immediately dissolved and actually the side and bed slopes given where this soil occurs will have to be gentler than will probably be necessary in other sections where soils far lighter in appearance are encountered.

190. The only real difficulty likely to arise in connection with the canal is in the calculation and design of drainage crossings. A considerable number of such crossings will be required, some to dispose of the water carried by the various well-defined torrents which descend from the barra, particularly in the upper reaches of the alignment and some to dispose of the general surface drainage of the tract. The latter is of great importance, having regard to the huge volume of surface run-off which follows the very heavy bursts of rain that are so common in the tract, a fact to which the condition of the valley road after such bursts bears eloquent testimony. We have already suggested the establishment of a rain gauge in the barra above Burdali, and during the survey every effort should be made to gauge the discharges of some of the torrents after heavy rain and thus establish a correlation between the catchment area, the run-off and the discharge. There is, however, bound to be an element of uncertainty as to the discharges to be allowed, an uncertainty which is common to every project in country of this nature, and for this reason it will be preferable in the case of the larger torrents to siphon the canal under the torrent rather than the torrent under the canal, even at the cost of a small loss of command. By raising the walls between which the torrent flows a considerable factor of safety against exceptional floods can be secured at small expense.

191. Regard must also be had to the possibility of damage to the canal both by stock and by elephants. The canal will cut off both stock and elephants (which abound in the upper reaches of the alignment) from their normal watering-places. Paved watering and crossing places should be provided for the stock at intervals along the canal and heavy fines levied if they are permitted either to water or to cross elsewhere than at these places. Elephants present a slightly different problem as they seek the river not only for water but also for food, in the shape of the Sansevieria and dompalms which abound in the flood valley. They cannot, therefore, be cut off from the river and paved crossings should be provided to enable them to cross the canal without damaging the channel. The

position of these crossings should correspond with the existing elephant tracks through the bush. Elephants nearly always take the line of least resistance. We had clear proof of this when we were cutting straight lines through the bush from the river in order to enable levels to be taken across the barra. If a line were cut one day there would, as early as the next morning, be clear evidence that the elephants had used the line as the most direct path to the river during the night. Similarly, if suitable crossings are provided, it is probable that the elephants will utilize these in preference to climbing up and down the normal steep banks of the canal. It may be mentioned, in this connection, that it is mainly in the upper reaches of the canal that large herds of elephants are found and that on these reaches there is likely to be little or no cultivation.

192. There is one other point to which we would refer in connection with the channel, namely, the supply for which it should be designed. In the section of this chapter which deals with the financial aspects of the scheme we have tentatively suggested, in the absence of fuller data, a supply of 2,500 cusecs. We would here only remark that, provided always that sufficient suitable land proves to be available, the channel should be constructed to carry the largest supply on the regular occurrence of which, during the season after the big rains, reliance can be placed. It might, for example, be proposed to reduce the cost by building a smaller canal with a capacity, say, of 1,000 cusecs. We are convinced that this would be a mistake. The canal will be a long one, with the best area towards its tail, and the percentage losses by percolation are considerably larger in a small than in a large canal. It would never pay to carry a small supply for so long a distance to the point where it was required. The correct and, indeed, the only policy which will safeguard the finances of the project is to construct the largest canal for which the supply will suffice.

193. It will be clear that, in the initial stages of development, the main canal will be much larger than the acreage then under cultivation will warrant. To carry a small supply in a large canal leads to rapid deterioration of the channel; the canal will have to be run with a reasonable discharge and escapes provided to carry the surplus back to the river. It is probable that the maximum of economy in this direction will be secured by locating these escapes so that they run through

the eroded areas to which we have referred elsewhere ; in these areas there are beds of gravel and kankar through which the water could be allowed to flow with a high velocity, thus necessitating a smaller section for the escape channels and obviating the need for some at least of the masonry falls which would otherwise be essential.

194. It will also probably be economical to construct the distribution system gradually as colonisation proceeds and more and more area comes under irrigation. It should, of course, be designed in the first instance as a single whole but it should be constructed only as required, thus saving interest charges and avoiding the deterioration by weathering and similar causes to which unused channels are always subject.

195. Finally, very special attention will have to be paid to the drainage system, the correct design of which will be no less important than that of the distribution system. On some of the older desert canals in India the importance of this aspect of the question was not realized in the first instance, with the result that large sums are now having to be spent to arrest deterioration and to combat the evil effects of water-logging and salt efflorescence. Fortunately the slope of the barra will make efficient drainage easy to secure but it is essential that the drainage and distribution systems should be constructed simultaneously. Like the distribution system, the drainage system should be designed in its entirety in the first instance, being constructed gradually as the distribution system develops. In the absence of efficient drainage deterioration of the land would be both certain and rapid.

(e) COMMUNICATIONS.

196. As in the case of every isolated desert irrigation project, the problem of communications is both a difficult and an important one. It is, moreover, one which we have had no opportunity of studying with the attention which it deserves. We do not, therefore, attempt to deal with it in any detail but content ourselves with making certain general observations, leaving a proper examination of the subject to be made later in the light of these remarks.

197. There is a considerable difference between productive and protective schemes as regards the nature of the communications which are required. On a productive scheme large areas of money crops are usually grown for export and the volume of produce requiring carriage is very large. On a protective

scheme, where the maximum possible number of colonists are settled and the holdings are consequently small, the bulk of the produce is devoted to feeding the resident population and the volume of exports is comparatively small. The latter will be the case on the Tana.

198. It has next to be considered where any surplus produce which may be available for export will be most needed. The crops grown will, in the main, not be such as to make export to foreign countries a profitable proposition and it is probable that by the time, from ten to fifteen years hence, when surplus produce first becomes available it will be required in Kenya itself to feed the growing population of areas already congested and to provide sustenance for the natives left in the reserves where desert conditions have become pronounced owing to overstocking. This factor is of importance in considering the communications to be provided.

199. At first sight it might seem that nature has herself provided a suitable channel of communication in the river, but this is a view which we cannot take. Its shallowness, its tortuosity, the sharpness of its bends, the vagaries of its narrow deep channels in which alone navigation is possible, the snags with which its bed bristles, all these render it, in our opinion, entirely unsuitable for transport on a large scale. Throughout the period of our visit to the Tana, with the exception perhaps of the last three days, no mechanically driven vessel capable of carrying any appreciable amount of cargo could have proceeded upstream further than Kau. And when the mouth is reached the river bar forms an insuperable obstacle to the passage of any but the smallest sea-going dhows.

200. We may here mention (though, we regret, only to dismiss) a suggestion made to us at a meeting which we held with certain prominent residents and merchants in Lamu that the lower reaches of the river should be short-circuited by the construction of a direct navigation canal from the Tana to Lamu. We do not consider that such a scheme is practicable. The canal would be very expensive to construct, involving as it would do numerous locks to absorb the surplus fall between the intake and the sea, and it would in no case be possible to place the intake so high on the river as to obviate the difficulties which navigation on the Tana inevitably presents and to which we have already referred.

201. Nor does Lamu seem to us to lie on the best route for Tana produce. It would obviously be uneconomical, if, as we believe, this produce will be required in Kenya, to carry it to Lamu, tranship it there, tranship it again at Mombasa and then rail it to the place where it was required.

202. In view of these considerations, the best route will probably be found to be *via* Kitui, connecting with the Kenya and Uganda Railway at some suitable point. We had hoped to be able to traverse this route on our return journey from the Tana, but unfortunately it had by that time become impassable. In the early stages of colonisation it will probably suffice if an all-weather road is made, road transport being used; later, as the produce increases, a light railway line might be laid along the side of the road, which should be aligned with this object in view, and locomotive haulage employed. It will certainly be very many years before the exports reach an amount which cannot be dealt with in this manner.

CHAPTER IX.

RECOMMENDATIONS.

203. Believing as we do that the introduction of irrigation into Kenya constitutes the only real solution of the problem which has arisen in the Colony owing to overstocking, we consider that no time should be lost in making a detailed survey of the upper Tana and of the area which can be commanded from it with a view to confirming our provisional conclusion as to the practicability of an extension irrigation project in this tract—we have already stressed the fact that this conclusion has been reached by methods of approximation; in the time available no more was possible. Moreover, as we have stated, we were forced to confine our attentions to one bank only of the river, and the possibility can not be excluded that better conditions may exist on the other side. We set ourselves out to examine whether a *prima facie* case for further investigation existed; we consider that such a case has been fully established.

204. We are of opinion that the further investigation should be divided into two parts. The first part, which would probably take a year to complete, would consist of a general reconnaissance, both as regards country and soils, of the whole area which could reasonably be commanded on both banks. It would follow the general lines on which we have proceeded. Lines of levels would be run from the site of the headworks along the edge of the flood valley on both banks and from this line other lines of levels would be carried into the barra at intervals of perhaps five miles until sufficient data were available to enable the whole country commanded to be roughly contoured, the best alignment of a canal on either bank laid down and the commanded areas calculated. Soil samples would be taken at intervals along these lines and analysed, and rough soil maps of the commanded areas prepared.

205. With this information to hand it should be possible to determine finally, first, whether a scheme was practicable, secondly, on which bank it would be situated and, thirdly, where the best areas for irrigation would be found.

206. This would be followed by a close contour and soil survey of the project selected, including the detailed surveys necessary for the design of the headworks, the head reach and other important works. We have recommended the division

of the operations into two parts so as to obviate a close survey of that bank of the river to be subsequently rejected or of areas on the project chosen which the original soil survey showed to be obviously unsuitable for irrigation. But the first part should be done with exactly the same degree of accuracy as the second; it would not really be a separate operation but would involve the determination of the framework into which the second half would be filled.

207. As the second half of the survey progressed the designs and estimates of the canal and its connected works would be taken in hand. The estimates should be expressed both in quantities of materials and in money so that, should an appreciable period elapse between the conclusion of the survey and the commencement of construction, any changes in rates should be readily allowed for.

208. The whole of the operations, including the reconnaissance and the preparation of plans and estimates, would, we consider, take three years to complete. At the end of that period the Government of Kenya would be in possession of the fullest possible information in regard to the scheme, its potentialities and its cost, and in a position, if a decision in its favour were taken, to commence the construction of it as soon as funds and staff became available.

D. G. HARRIS.

H. C. SAMPSON.

15th June, 1934.

APPENDIX.

DIARY OF TOUR.

The diary relates only to days on which camp was changed and does not detail the numerous journeys made from and around each camp.

February

- 18 ... Arrived Mombasa.
- 19 ... Mombasa—Malindi (by road).
- 20 ... Malindi—Mombasa (by road).
- 21 ... Left Mombasa (by rail).
- 22 ... Arrived Nairobi (by rail).
- 25 ... Nairobi—Garissa (by air).
- 26 ... Garissa—Rapids—Kipini—Lamu (by air).
- 27 ... Lamu—Garissa (by air).

March

- 1 ... Garissa—Burdali (by road).
- 2 ... Burdali—Dakacha (by road).
- 4 ... Dakacha—Mojja (by canoe).
- 7 ... Mojja—Burdali (by canoe).
- 12 ... Burdali—Saka (by road).
- 14 ... Saka—Garissa (by road).
- 17 ... Garissa—Massabubu (by road).
- 18 ... Massabubu—Langoni (by canoe).
- 19 ... Langoni—Ngivena (by canoe).
- 20 ... Ngivena—Baumo (by canoe).
- 22 ... Baumo—Pumwani (by canoe).
- 23 ... Pumwani—Garsen (by canoe).
- 24 ... Garsen—Golbanti (by canoe).
- 25 ... Golbanti—Belazoni (by canoe).
- 26 ... Belazoni—Kau (by canoe).
- 27 ... Kau—Kipini (by canoe).
- 28 ... Kipini—Lamu (by road).

April

- 5 ... Lamu—Boni forest (by road).
- 6 ... Boni forest—Massabubu (by road).
- 7 ... Massabubu—Garissa (by road).
- 11 ... Garissa—Sankuri (by road).

- 14 ... Sankuri—Saka (by road).
- 15 ... Saka—Burdali (by road).
- 16 ... Burdali—Dakacha (by road).
- 17 ... Dakacha—Boso (by road).
- 18 ... Boso—Kuro (by road).
- 19 ... Kuro—Isiolo (by road).
- 21 ... Iсиolo—Nyeri (by road).
- 23 ... Nyeri—Nairobi (by road).
- 30 ... Nairobi—Naivasha (by road).

May

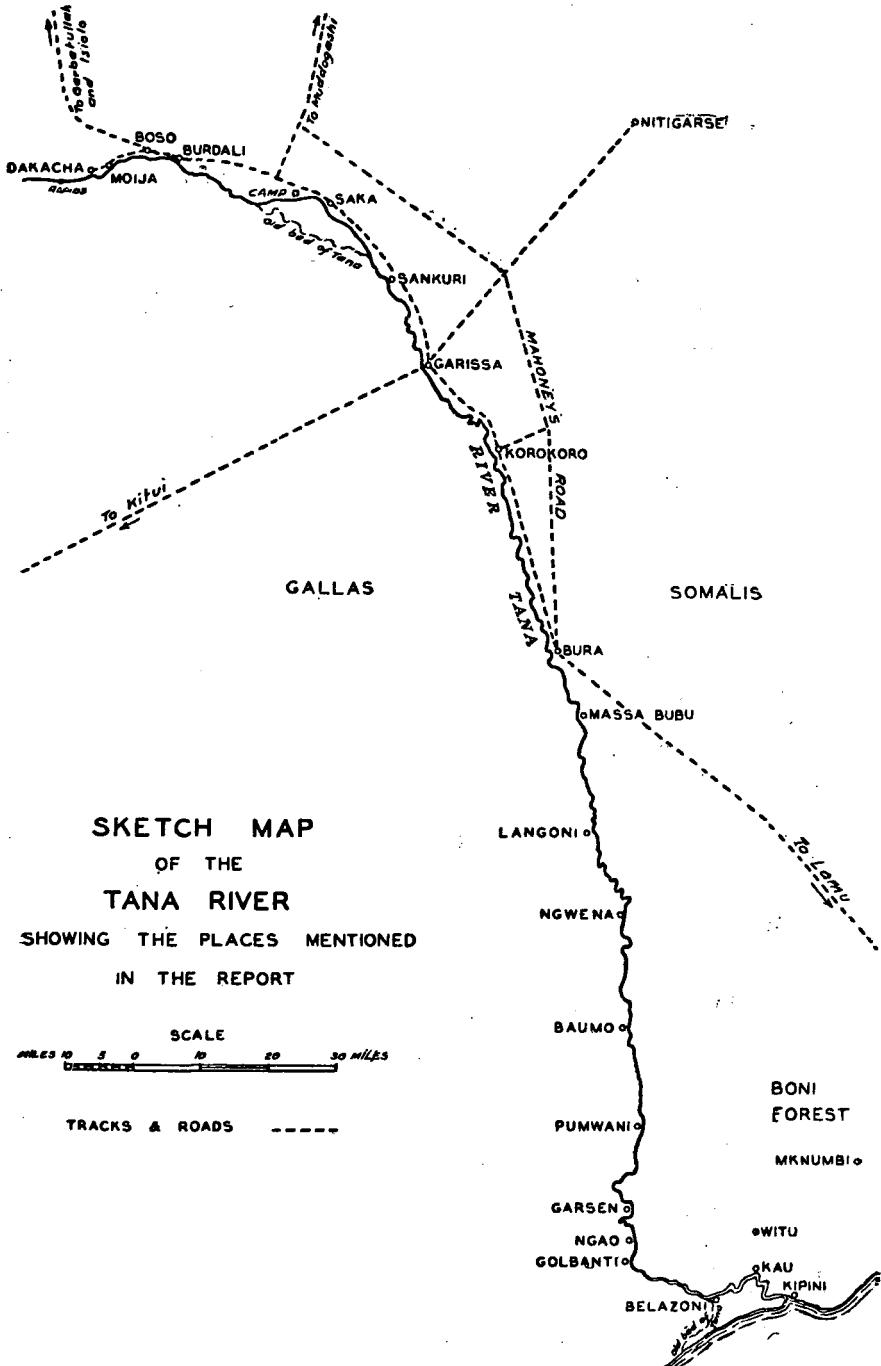
- 1 ... Naivasha—Kisumu (by road).
 - 4 ... Kisumu—Molo (by road).
 - 5 ... Molo—Nakuru (by road).
 - 6 ... Nakuru—Marigat (by road).
 - 7 ... Marigat—Legumukum—Mkuyuni (by road).
 - 8 ... Mkuyuni—Loboy—Njoro (by road).
 - 9 ... Njoro—Nairobi (by road).
 - 15 ... Left Nairobi (by rail).
 - 16 ... Arrived Taveta (by rail).
 - 17 ... Left Taveta (by rail).
 - 18 ... Arrived Mombasa (by rail).
-

PLACE NAMES.

TANA	KANO	MAHONEY	SIND
GARISSA	PERKERRA	MUDDOGASHI	PARTABGARH
BURA	NJORO	KOROKORO	MALINDI
LAMU	UMBA	WITU	LANGONI
GARBATELLA	DIGO	MKNUMBI	NGWENA
ISIOLO	TANGA	BONI	PUMWANI
WAJIR	ABERDARES	ZANZIBAR	BOSO
NAIROBI	SANKURI	GARSEN	KURO
MASSABUBU	MACKENZIE	ORISSA	NAIVASHA
KITUI	BAUMO	BURDWAN	MOLO
MOUNT KENYA	NGAO	DAMODAR	NAKURU
NYERI	BELAZONI	DAKACHA	MARIGAT
KISUMU	OSSI	BURDALI	LEGUMUKUM
KAMASIA	KAU	SAKA	MKUYUNI
TAVETA	KIPINI	PUNJAB	LOBOY
TANGANYIKA	GOLBANTI	SUK	
MOMBASA	MOIJA	JAMRAO	

VERNACULAR NAMES.

BARBA	GALLA	NYIKA	LUNIAS
WA-POKOMO	SOMALI	CHIROKO	



COLONY AND PROTECTORATE OF KENYA



REPORT OF THE ECONOMIC
DEVELOPMENT COMMITTEE

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NAIROBI
PRINTED BY THE GOVERNMENT PRINTER
1935

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Report of the Economic Development Committee

YOUR EXCELLENCY,

We have the honour to submit the following report on the ^{Terms of Reference.} terms of reference entrusted to us in March, 1934 (Government Notice No. 211, published in the Official Gazette of the 20th of March, 1934) which read as follows :—

"Regard being had to the present financial position of the Colony and the nature of its existing loan commitments, to examine and advise upon any proposals directed towards improvement of the Colony's balance of trade and towards the maintenance and development of its agricultural and industrial resources."

2. The personnel of the Committee was as follows :— Personnel.

Mr. G. R. Sandford, O.B.E. (then Acting Treasurer),
Chairman.

Mr. S. H. La Fontaine, D.S.O., O.B.E., M.C. (then
Acting Chief Native Commissioner).

Mr. H. B. Waters, Director of Agriculture.

Mr. S. Thornton.

Lieut-Col. Lord Francis Scott, D.S.O.

Mr. T. J. O'Shea.

Captain C. B. Anderson.

Colonel G. C. Griffiths, C.M.G.

Mr. D. D. Puri.

Mr. V. Liversage, the Agricultural Economist, was appointed Secretary.

3. Mr. O'Shea left Nairobi for England on the 13th of April and was absent from the Colony until the 3rd of September by which date the deliberations of the Committee were approaching completion.

4. Lord Francis Scott left for England on the 27th of July, his place on the Committee being taken by Major F. W. Cavendish-Bentinck.

5. The first meetings of the Committee were held on the 5th ^{Procedure.} and 6th of April. It was decided to publish a notice in the local press asking that persons, associations or other bodies who desired

to place before the Committee proposals bearing on the terms of reference should forward their proposals in memorandum form. Letters giving the terms of reference and asking that proposals should be sent to the Committee were separately addressed to Farmers' and Miners' Associations, Chambers of Commerce and other representative bodies. Detailed questionnaires were sent to the Coffee Board, the Kenya Farmers' Association, the Sisal Growers' Association, the Kenya Tea Growers' Association, the Kenya Co-operative Creamery, the East African Sugar Manufacturers' Association and other bodies associated with particular industries. Circulars were issued to Heads of Government Departments and Provincial Commissioners with a view to securing information and proposals from them and from the officers serving under them. In the case of the Provincial Administration, the circular took the form of a questionnaire indicating the general lines upon which the Committee would welcome information.

Acknowledgements

6. In response to these circulars, questionnaires and notices and to other requests for information which the Committee subsequently made, 128 memoranda were received. We take this opportunity of acknowledging our indebtedness to those persons, associations and other bodies who provided us with information in this way and put forward proposals for our consideration. A list of the sources from which memoranda were received is given in Appendix I.

7. We also desire to acknowledge the great assistance we received from the witnesses who gave oral evidence before us.

Meetings.

8. The work of preparing questionnaires and circulars had been entrusted to a sub-committee on the 6th of April, on which day the Committee adjourned until the 18th of May, by which date it was hoped that material in reply to our inquiries would have been received. Thereafter the Committee sat on six days during May, five in June, twelve in July, eight in August, eight in September and three in October.

The Secretary.

9. We wish to place on record our great appreciation of the help we received from our Secretary, Mr. Liversage, whose work in connection with the distribution of memoranda, the recording of notes of our discussions and of the oral evidence given to us, and the preparation of the draft report was invaluable. In addition, Mr. Liversage's special knowledge of many of the problems affecting the Colony's agricultural industries was of material assistance to us.

Events leading to the Committee's appointment.

10. As the sequence of events immediately preceding the appointment of the Committee may be held to have influenced the manner in which our terms of reference were framed and therefore

the scope of our deliberations it seems desirable that we should, at the beginning of our report, give a brief history of the circumstances leading up to our appointment.

11. During the course of the debate in Legislative Council on Mr. O'Shea's motion of 6th December, 1933, the Budget for 1934 an amendment was moved by Mr. O'Shea :—

"That it be an instruction from this Council to the Select Committee on Estimates, when examining the draft Estimates for 1934, to consider what additional provisions (if any) are necessary to provide for an adequate programme of economic reconstruction and to consider the advisability of loan funds being obtained to finance any such recommendations."

12. In introducing his amendment, Mr. O'Shea referred to the present state of the Colony and to widespread public discussions that had taken place in the course of recent months as to schemes that could be put into effect for the improvement of the situation. It had appeared from these that the expenditure of money was required. Mr. O'Shea subscribed to the view that because the Colony was on the turn of the tide it was necessary to be very conservative about embarking on new expenditure; but contended that if, after mature consideration, ways could be found in which money would be well spent, it would be wisdom to find that money and to spend it. It was, he held, sound finance for this country at its present juncture to find new money and to spend it on wise schemes of reconstruction.

13. Your Excellency agreed that an inquiry should be held and undertook that a special *ad hoc* committee should be appointed for this purpose, an *ad hoc* committee being considered preferable, not only because the Select Committee on Estimates was regarded as too large and unwieldy a body to conduct an inquiry of this kind, but also because projects involving loan expenditure in this Colony have, in the past, normally been referred to *ad hoc* committees and not to the Select Committee on Estimates. On this reply being given, Mr. O'Shea's amendment was withdrawn.

14. For a committee such as that contemplated, one of the first duties would clearly be to examine the financial position of the Colony, to gauge whether or not further loan funds, for whatever purpose, were required and, if they were required, what was the likelihood of the Colony being able to obtain them. In view of the importance of this issue to the work of the Committee, Your Excellency decided that, before agreeing either on the terms of reference or on the appointment of the Committee, the matter should be referred to the Secretary of State during his visit to Kenya in order to obtain from him some indication as to the prospects of this

The
Secretary of
State's visit.

Colony being able to obtain further loan monies. In the course of an interview with the European Elected Members on the 14th of February, 1934, the Secretary of State said :—

“Leaving aside projects of definitely remunerative expenditure, which are always entitled to special consideration, it would not be prudent, or, I think, practicable, for this country at the present time to raise a large sum on the market. This is the broad financial position.”

**Statement
authorized
by the
Secretary of
State.**

15. A statement authorized by the Secretary of State was made by Your Excellency in the Legislative Council on the following day :—

“1. In the opinion of the Treasury and of the City, Kenya has borrowed as much as is justifiable, having regard to her present financial position. That is a fact which cannot be disregarded ;

2. A proposal that Government should borrow largely in order to take over existing mortgages is not a development proposal ; it is a relief proposal ;

3. Any proposal for sound new economic development will be sympathetically considered. The Secretary of State has, for example, discussed fully with the representatives of the sisal industry certain proposals for the instalment of machinery to obtain greatly reduced costs of production.”

**Mr. O'Shea's
motion of 15th
February,
1934.**

16. On the same day Mr. O'Shea proposed a motion in the Council regretting the delay in the appointment of an Economic Reconstruction Committee and trusting that such a Committee would be appointed immediately with a personnel and terms of reference adequate to the purpose in view. He expressed himself as unable to accept the statement that no funds would be available for economic reconstruction and pressed for further inquiry on that matter ; and apart from that he urged that there was a wide scope for such a committee even with the limited funds there might be available. Furthermore, Mr. O'Shea referred to the undertaking given by Your Excellency at the previous session and to the importance of implementing it.

17. The Colonial Secretary in reply stated that, in view of the Secretary of State's pronouncement on the prospects of the Colony being able to secure further loan monies, the Government felt some hesitation in proceeding with the appointment of a committee because, if such a committee were to be appointed to examine the different demands for loan funds, the work would probably take a considerable time, and if it was known in advance that an application for further loan funds could not be entertained the time spent

in conducting such an inquiry would be largely wasted. The appointment of a committee of this kind might also be leading the public in general to foster false hopes which would not be realized. The point had, however, been taken in debate that a pledge had been given and that that pledge was not going to be fulfilled. The Colonial Secretary regarded that as an over-riding consideration and added :—

“If the real question before the House is whether or not the pledge given by this Government is to be honoured or not (even though, in our opinion, it may be that the appointment of such a committee may not result in all that we originally hoped for) Government is prepared to proceed with the appointment of the committee.”

18. It will be seen, therefore, that the scope of the inquiry ^{Scope of inquiry.} originally proposed by Mr. O’Shea had undergone a considerable change and that the pronouncements of the Secretary of State had materially affected the attitude that must be taken towards further loan expenditure. From the suggestion that the Select Committee on draft Estimates should consider what additional provisions (if any) were necessary to provide an adequate programme of economic reconstruction and the advisability of loan funds being obtained to finance any such recommendations had emerged a decision to appoint a committee charged with the duty of examining and advising upon any proposals directed towards improvement of the Colony’s balance of trade and towards the maintenance and development of its agricultural resources, such committee’s deliberations being necessarily restricted in their relation to loan expenditure by the announcement referred to in paragraph 15 above, while its powers to suggest the expenditure of further sums from revenue were circumscribed by the facts of the Colony’s budgetary position.

19. This change in the character of the inquiry at once broadened and limited its scope. Limitation on the financial side must inevitably be regarded as a severe handicap to deliberations on economic reconstruction or economic development, but such limitation makes it all the more necessary for the committee to examine and express an opinion on the existing state of affairs in the Colony and to suggest lines of action calculated to improve that state whether or not additional finance is involved. The great majority of proposals which we have considered involve finance in some degree. We have not regarded that factor as precluding us from recommending that action should be taken on them if we are satisfied that the expenditure of money in the directions indicated will benefit the Colony to such an extent as in our opinion justifies that expenditure. At the same time, we have endeavoured to keep

the financial position of the Colony prominently in mind throughout our deliberations and realize the limitations which it must necessarily place upon our recommendations.

Statistical review.

20. We regard it as an essential part of our report that we should assemble in some detail certain facts and figures relating to the Colony's present economic condition in so far as they can be obtained from published reports and statistics. It is on these that the results of past policy, the effect of world conditions, and the direction that development should take must in the long run be judged. In the following section of our report, therefore, we deal successively with :—

- (A) The present financial position of the Colony.
- (B) The Colony's existing loan commitments.
- (C) The Colony's balance of trade.
- (D) The nature, quantity and value of the Colony's exports.

II.—STATISTICAL REVIEW.

(A) THE PRESENT FINANCIAL POSITION OF THE COLONY.

Financial results for 1923 to 1933.

21. The actual revenue and expenditure from 1923 onwards and the surplus balances of the Colony at the end of each year are shown in the following table :—

YEAR	Revenue	Expenditure	Revenue in excess of Expenditure	Expenditure in excess of Revenue	Surplus Balances at end of year
1922 ..	—	—	—	—	107,342
1923 ..	1,839,447	2,137,633	—	298,186	—190,844
1924 ..	2,111,565	1,861,511	250,054	—	59,210
1925 ..	2,430,509	2,339,996	90,513	—	149,723
1926 ..	2,627,223	2,414,681	212,542	—	362,265
1927 ..	2,846,110	2,515,115	330,995	—	693,260
1928 ..	3,020,694	2,834,647	186,047	—	879,307
1929 ..	3,333,742	3,505,073	—	171,331	707,976
1930 ..	3,241,600	3,438,874	—	197,274	510,702
1931 ..	3,066,930	3,216,089	—	149,159	361,543
1932 ..	3,010,214	3,119,723	—	109,509	252,034
1933 ..	3,121,496	3,168,035	—	46,539	205,495

Surplus Balances.

22. The figures shown for surplus balances represent the balance of the surplus and deficit account at the end of each year. That account is posted exclusively from the accounts of revenue and

expenditure. It includes no reference to advances etc. made from revenue but not charged to final expenditure. Appreciation of the Colony's cash position therefore requires analysis of the assets included in the Colony's balance sheet.

23. In making this analysis account must be taken of the cash required for current Treasury needs as a working balance. The Select Committee on the draft Estimates for 1930 agreed that a sum of £100,000 should be regarded as required for this purpose. Allowance must be made for this.

24. The composition of surplus balances since the end of 1929 is shown in the following table :—

	1929	1930	1931	1932	1933
Working Balance ..	£ 100,000	£ 100,000	£ 100,000	£ 100,000	£ 100,000
Unallocated Stores ..	83,515	83,602	68,440	59,083	51,543
Civil Servants' Housing Scheme ..	—	23,980	29,200	26,730	22,814
Loans to Local Authorities ..	—	4,052	2,427	1,743	1,448
Agricultural Advances ..	—	51,980	95,034	106,377	110,244
Loan to Maize Industry			111,391	111,460	111,460
Loan to Wheat Industry		29,075	4,205	4,205	4,205
Loan to Barley Industry			425	425	425
Famine Relief Measures		—	12,622	—	—
Total	183,515	292,689	423,744	410,023	402,139
Excess of Assets over Liabilities	707,976	510,702	361,543	252,034	205,495
Excess of Cash ..	524,461	218,013	—	—	—
Cash Deficiency ..	—	—	62,201	157,989	196,644

25. The deficits of 1930, 1931, 1932 and 1933 have reduced the Colony's surplus balances by £502,481, but the free cash position during this period has deteriorated by £721,105. The present free cash position is clearly unsatisfactory and until it has improved by at least £200,000 by the accretion of revenue surplus to expenditure or by the liquidation of what are now frozen assets in the statement of surplus balances given above, or preferably by a combination of both, the financial position of the Colony cannot but be regarded as insecure.

26. So far as the detailed figures relating to surplus balances are concerned, the position in regard to unallocated stores is satisfactory showing as it does a reduction from £83,515 in 1929 to £51,543 in 1933. The items covering the Civil Servants' Housing Scheme and Loans to Local Authorities also call for no special

The cash position.

Nature of non-cash assets.

comment, but some further elaboration of the position of Agricultural Advances (£110,244) and Loans to the Cereal Industries (£116,090) is necessary in order to obtain a proper appreciation of what is shown in the Colony's balance sheet as "surplus balances".

**Agricultural
Advances
Scheme.**

27. Owing to the general fall in the prices of agricultural produce in 1930, and to the long lag between the production and the realization of products, difficulties were experienced by many farmers whose existing sources of credit were exhausted, and special steps were taken as an emergency measure to place additional credit facilities at their disposal. Legislation was enacted in May, 1930, providing for the appointment of a Central Agricultural Advances Board and laying down the powers and duties of the Board. By motion of the Legislative Council on the 30th of May, a sum of £100,000 was appropriated as a charge against surplus balances for the purpose of making advances and meeting expenses under the Ordinance. The Ordinance prescribed that interest at the rate of 8 per cent per annum should be charged on advances, the object in view being to ensure that the operations of the Board should not interfere with the normal flow of credit facilities from banks or finance corporations.

28. By the end of September, 1930, 113 applications had been received and 65 had been granted. By the close of the year the Central Board had approved 103 applications and had sanctioned advances for 1930 totalling £68,689. Certain curtailments were, however, effected which reduced the total commitment as at the end of the year to £58,000, of which sum approximately £6,000 had not been drawn.

29. The majority of advances were made in the form of monthly instalments for the payment of labour and domestic expenses of the farmer. This afforded a means of greater control. The policy of the Board aimed at helping as many farmers as possible with comparatively small amounts rather than a few with large sums and with the limited resources at its disposal the Board found it necessary to refuse a number of applications for substantial amounts although the security offered might have proved satisfactory. In a considerable number of cases, applications had to be declined as the farmers concerned were so deeply involved financially that any assistance granted would have been of little avail.

30. The scheme was intended to be temporary but the further fall in prices in later years, coupled with extensive damage by locusts in 1931 and 1932 and the drought in 1933, seriously affected recoveries of principal and interest. By the end of 1931 the amount involved in the outstanding advances made by the Board was

£95,034; at the end of 1932 it was £106,377; and at the end of 1933 it was £110,244. Further sums of £7,000 in May, 1933, and £6,000 in December, 1933, were placed at the disposal of the Board, the total appropriation by way of advances up to the end of 1933 being therefore £113,000.

31. The position of the scheme according to the latest information may be summarized as follows :—

(a) The amount outstanding at the end of June, 1934, was	... ... ... ...	£106,450
(b) The amount written off as a bad debt by that date, less an amount of £87 subsequently recovered and brought to revenue, was	... ...	7,164
		£113,614

(c) From the inception of the scheme up to the end of 1933 a sum of £7,251 has been paid to General Revenue, this representing the excess of interest payments received by the Board over the cost of administration of the scheme.

(d) Of the 103 farmers who participated in the scheme, 23 had repaid the advances in full by the end of 1933.

32. In the present distressed state of agriculture, the winding up of the scheme is necessarily a delicate and gradual process and before liquidation is completed further losses are inevitable.

33. A resolution was passed in the Legislative Council on the 30th of August, 1930 :—

Loans to
maize, wheat
and barley
industries.

“that in order to give relief to grain growers, in connection with which the Railways and Harbours Administration are prepared to co-operate to the extent of bearing fifty per centum of the cost, this Council approves of the appropriation of a sum not exceeding £35,000 from the Colony's surplus balances for the purpose of enabling a refund of the whole or part of the railway rates and port charges to be made in respect of the maize, wheat or barley exported since January last from the present season's crops (i.e. the crops harvested towards the end of 1929 and early in 1930)”.

on certain understandings, one of which was—

“that the relief is passed on in full to the growers”,
and another—

“that, in so far as the Colony's share of the total sum involved is concerned, the amount refunded may, at a future date, be recoverable from the industry in such a form or manner as this Council may decide”.

The total amount advanced in accordance with this resolution stood at £29,075 at the end of 1930.

34. On the 17th of January, 1931, a resolution was passed in the Legislative Council in the following terms :—

"1. That in view of the present depressed state of the maize industry a sum not exceeding £108,000 shall be made available from surplus balances for the purpose of advancing as a loan free of interest to the industry, irrespective of race, a contribution in respect of every bag of maize exported from the crop harvested at the end of 1930 and the beginning of 1931 subject to the following conditions :—

- (a) Such contribution shall be a sum up to but not exceeding Sh. 2/09 per bag of 200 lb. net provided that the total return to the grower including the net selling price plus the contribution does not exceed Sh. 6 per bag free on rail Kenya main line stations.
 - (b) That the amount advanced in respect of each bag may be paid by instalments on account and shall be subject to adjustment at the close of the season when the total number of bags exported is known, so as to ensure that the total capital sum of £108,000 advanced by Government, plus any sum contributed in accordance with paragraph 2 (b) of this Resolution is not exceeded.
 - (c) That any contribution paid in accordance with conditions (a) and (b) above shall be repayable to Government by way of a cess on export as soon as the price of maize for export exceeds the value of Sh. 7/25 free on rail Kenya main line stations based upon the ruling price of maize of K.2 grade on the London market. Such payment shall be at the rate of 50 per centum of the difference by which the ruling price exceeds Sh. 7/25.
 - (d) That it shall be within the absolute discretion of the Government to withhold payment, unless it is satisfied that the maize exported is surplus to the Colony's requirements and that the contribution will be passed on to the grower.
2. That the measure of Government relief proposed in paragraph 1 above is subject to the following provisos :—
- (a) That the general co-operation of the Banks is assured on the lines already indicated in paragraph 23, 4b of the Maize Conference Report.

- (b) That financial assistance to the satisfaction of Government and on the lines recommended in paragraph 23, 4a of the Maize Conference Report is assured.
- (c) That the sum of approximately £27,000 already advanced in relief of the industry in accordance with the Resolution as passed in Legislative Council on the 30th of August, 1930, shall be recovered in like manner to the sum now proposed in accordance with the terms of paragraph 1 (c) of this Resolution.

35. The price of maize on the London market has been low for Maize prices. the past four years. When our work started it was in the neighbourhood of 19s. 6d. per quarter (which may be taken as equivalent to about Sh. 4/20 per bag f.o.r. Kenya main line stations). Recently, however, there has been a marked improvement, the latest figures showing a price of from Sh. 23 to Sh. 25 a quarter (equivalent to about Sh. 5/60 to Sh. 6/40 per bag f.o.r. Kenya main line stations). The future trend of maize prices cannot be foreseen. With the recent increase in price the prospects of recovering part of the amount outstanding on account of the loan to the maize industry have become perceptibly brighter, but further considerable improvement must take place before any part of the advance becomes repayable. London prices for wheat and barley are at present too low to justify recovery of the smaller loans made to those industries.

36. Attached as Appendix II to this report is a note on the financial working of the Colony during the past six years. That note indicates the disturbing effect on the Colony's finances from 1929 onwards of the economic depression and the incidence of drought and locusts. In 1927, Kenya was deemed to be in a financial position sufficiently strong to contemplate extraordinary expenditure from free surplus balances. To-day it finds itself in a position where cash resources are exhausted and efforts to restore them are urgently necessary.

37. We have not regarded it as any part of our function under our terms of reference to investigate and report on the present revenue system of the Colony or to include recommendations covering the range of Government expenditure as a whole. The organization of Government Departments formed the subject of inquiry by the Expenditure Advisory Committee which reported in February, 1933, and framed recommendations covering the four-year period to the end of 1937. We have in no way sought to review the work of that Committee and we have treated a number of suggestions placed before us dealing in general terms with public expenditure as a whole as being outside our terms of reference.

38. For the same reason we have not felt called upon to suggest a figure within which the total Government expenditure of the Colony should be required to fall or the manner in which, by taxation or other means, such cost should be met.

Conclusions regarding present financial position.

39. But as we are required under our terms of reference to pay due regard to the present financial position of the Colony, we have incorporated in our report a statement indicating in broad outline the financial history leading up to the position as stated in the Financial Report for 1933 and from this review we draw the following conclusions :—

- (1) After a succession of five years in which the accounts of the Colony have recorded a deficit, the Colony has no liquid cash reserves to fall back upon.
- (2) It is a matter of the greatest importance that the cash position should show some early improvement.
- (3) The greatest care must continue to be taken in limiting public expenditure to the utmost.
- (4) In the disposition of public services a greater proportion of the resources available should be devoted to services calculated to increase production, particularly production for export.

(B) THE COLONY'S EXISTING LOAN COMMITMENTS.

Total Public Debt.

40. The total public debt of the Colony is at present £17,205,600 allocated as follows :—

Colony	...	...	...	...	£3,953,792
Railways and Harbours	...	...	...	...	£13,251,808
				Total	£17,205,600

Terms of the loans.

41. The amount, date of repayment, rate of interest and allocation between the Colony and the Transport Administration of each loan, is shown in the following statement :—

LOAN	Amount	Repayable	Interest	Floated at	Colony	Transport
1921 ..	5,000,000	1946-56	6	£ 95 0	754,614	4,245,386
1927 ..	5,000,000	1948-58	5	99 10	—	5,000,000
1928 ..	3,500,000	1950	4½	95 0	659,669	2,840,331
1930 ..	3,400,000	1961-71	4½	98 10	2,233,909	1,166,091
1933 ..	305,600	1957-67	3½	98 10	305,600	—
	£ 17,205,600	—	—	—	3,953,792	13,251,808

42. Annual interest and sinking fund charges are as follows :— Annual charges.

	Interest	Sinking Fund	Total
	£	£	£
Colony	186,184	30,537	225,721
Railways and Harbours	685,012	132,519	817,531
TOTAL .. £	871,196	172,056	1,043,252

43. Money borrowed for Railways and Harbours purposes has been borrowed for the following items :—

RAILWAYS—	£
1. Repayment of Loan Moneys received from H.M. Treasury before 1921	1,019,443
2. Uasin Gishu Railway	1,994,597
3. Repayment of Imperial Loan of £3,500,000 (1924)	3,280,467
4. Purchase and Reconditioning of Voi-Kahe Branch Railway	100,000
5. Nyeri, Kitale, Solai and other Branch Lines in Kenya	1,114,971
6. Purchase of Site for New Railway Station, Mombasa	54,999
7. General Improvements on Main Line and Additional Equipment	346,173
8. Additional Locomotives and Rolling Stock	1,056,000
	8,966,650
HARBOURS—	
9. Kilindini Harbour Works and General Port Development at Mombasa	3,089,475
RAILWAYS AND HARBOURS—	
10. Interest out of Capital	428,993
11. Expenses of Issue and Deduction for Discount	766,690
TOTAL RAILWAYS AND HARBOURS .. . £	13,251,808

44. The Imperial loan of £3,500,000 raised under the Imperial Loan Ordinance of 1924, referred to in item 3 above was repaid in 1927 at a discount of £219,533 from monies raised in the 1927 and 1928 loans. The purposes to which the proceeds of the 1924 loan have been applied are as follows :—

	£
Extension of Uganda Railway into Uganda and Construction of Branches into Kavirondo and Uganda	1,995,000
Additional Rolling Stock	990,000
Capital Improvements	515,000
TOTAL .. £	3,500,000

45. The Colony, therefore, has borrowed £13,251,808 for Railways and Harbours Development and the Railways and Harbours Administration is under an obligation, imposed by Order in Council, to pay to the Colony the interest and sinking fund charges involved.

This, however, does not show the complete picture. The Kenya and Uganda Railways and Harbours Administration is an inter-territorial Administration operating in both Kenya and Uganda, and money for Railway development has also been borrowed by the Government of Uganda. This of itself does not affect the Kenya loan position but, in association with other factors of importance, it does affect the Railway and Harbours Capital Account.

46. In his report for the year 1933, the General Manager states that the expenditure on Capital Account to the end of 1933 amounted to £22,418,140 provided as follows :—

	£
INTEREST-BEARING CAPITAL—	
Borrowed by the Kenya Government	13,012,956(1)
Borrowed by the Uganda Government	956,024
TOTAL INTEREST-BEARING CAPITAL £	13,968,980
OTHER CAPITAL—	
Parliamentary Grants, 1896 and 1902	5,686,437
Accrued Interest on 1924 Loan	421,662
TOTAL OTHER CAPITAL £	6,108,099
CONTRIBUTIONS FROM REVENUE—	
Direct (formerly called Expenditure Extraordinary)	649,803
Through Betterment Funds (Capitalized)	1,593,754
Through Marine Insurance Fund (Capitalized)	97,504
TOTAL CONTRIBUTIONS FROM REVENUE .. £	2,341,061
TOTAL EXPENDITURE ON CAPITAL ACCOUNT .. £	22,418,140

(1) Of this total the Uganda Government has accepted responsibility for approximately £2,000,000 representing assets constructed in Uganda and a share of rolling stock expenditure.

**Expenditure
on Capital
Account.**

47. The Railways and Harbours Capital Account shows expenditure as follows to the end of 1933 :—

	£
Lines Open for Traffic	13,411,310
Rolling Stock	3,934,744
Steamers, Tugs, Lighters, etc.	596,901
Docks, Piers, Wharves, etc.	3,222,083
Interest Paid Out of Capital	599,204
Expenses of Issue and Discount in Connexion with Loan Capital	553,448
Assets Handed Over to Kenya Colony and Protectorate (Without Charge)	22,317,590
TOTAL £	22,418,140

48. On the interest bearing capital the loan charges payable Railways and Harbours in 1934 are estimated at :—
Loan Charges.

	Interest	Sinking Fund	Total
Railways..	£ 525,608	£ 93,769	£ 619,377
Harbours	180,306	34,991	215,297
TOTAL .. £	705,914	128,760	834,674

49. These figures have been given to indicate the magnitude of Development the transportation system set up in these territories. A modern, of transporta- well-equipped port at Kilindini has been constructed with docks, piers and wharves costing more than £3,000,000 and served by 1,625 open miles of railway in Kenya and Uganda, constructed at a cost of nearly £13,500,000. Over £4,500,000 has been spent on rolling stock, steamers, tugs, lighters, etc.

50. The expenditure of such large sums of money upon transport development presupposes the anticipation of a steady increase in the traffic to be carried and the borrowing of the necessary capital on the London market, with the consequent obligation to meet heavy annual loan charges in London, could only be justified by the hope of a continuous expansion in the exports of the territories served by the system. Increased exports, with a consequential increase in imports and in trade, increased population and increased prosperity were the anticipations in mind when the great post-war expansion in transport services in Kenya and Uganda was proposed, arranged, and carried out.

51. The faith in the future of these countries which is the foundation of the whole programme of transport development was, in so far as loan expenditure was concerned, initially concentrated almost exclusively upon those services. This was, to some extent, natural. In the développement of transport services under State administration there lies a form of activity which is widely recognized as a legitimate purpose for borrowing by the State. But the provision of improved facilities for produce to pass to the market, important as it is, is no substitute for production itself, and the provision of loan funds for purposes directly aimed at the stimulation of production in the field requires a definite objective recognized as suitable for loan expenditure, which experience has shown to be more difficult to devise.

52. The reasons for this are, to some extent, obvious. In the first place, State expenditure intended to stimulate production must

very largely be recurrent expenditure devoted to an improvement in recurrent education, medical, agricultural and veterinary services, administrative action and the internal mechanism of Government. Such expenditure forms a legitimate charge on the annual revenues rather than on long-term borrowings. In the second place, although Kenya loans are secured on the general revenues and assets of the Government of Kenya, one of the fundamental requirements of items of loan expenditure in general is that the asset created out of loan monies should have a life at least comparable with the term of the loan. This condition is clearly satisfied in the case of a railway maintained in a full state of efficiency and of substantial buildings kept in repair, but not in the case, say, of a stimulated campaign for the production of cotton. And in the third place, the Government does not itself normally engage in production. In the productive effort, reliance is placed on private enterprise, the provision of private capital and the personal endeavours of the inhabitants.

53. It is largely owing to the recognized legitimacy of borrowing for wharves and permanent way and the comparative difficulty of choosing objectives regarded as suitable for governmental borrowing for other forms of colonial development that so considerable a disparity exists between the £13,251,808 borrowed by Kenya for Railways and Harbours purposes and the £3,953,792 borrowed for other purposes. The existence of this disparity has long been appreciated. The development of transport facilities has outstripped the development of production; the equipment of the Colony lags far behind the equipment now in the hands of the Railways and Harbours Administration to deal with the traffic offering.

Colonial development.

54. The purposes for which the Colony has borrowed money on its own account may be summarized as follows:—

	£
1. Repayment of Loan Moneys Received from H.M. Treasury before 1921 (Mombasa Water Supply) ..	84,469
2. Repayment to Revenue of Advances made from Revenue for Military Expenditure in connexion with War and Purchase of Reserve Stores for Railway and Steamer Services	600,000
3. Public Buildings	1,496,516
4. Water Supplies	225,800
5. Communications	333,678
6. Loans to Local Authorities	506,581
7. Land and Agricultural Bank	500,000
8. Unallocated	24,266
9. Interest out of Capital	819
10. Expenses of Issue and Deduction for Discount..	181,663
TOTAL .. £	3,953,792

55. Expenditure on Public Buildings incurred up to the end of Public buildings.
1933 included expenditure on :—

	£
1. Housing for Government Servants	591,655
2. Medical Buildings—Including the Medical Research Laboratory, Nairobi; Extensions to the Mathari Mental Hospital and Hospitals at seventeen centres throughout the Country	124,968
3. Educational Buildings—Eight Schools	313,254
4. Other Buildings	102,615
5. Establishment Charges not yet Allocated to Works	63,704
6. Maize Drying Installation, Kilindini	10,744
7. Cold Storage Installation, Kilindini	11,293
TOTAL EXPENDITURE TO END OF 1933 £	1,218,233

56. Water Supplies have been constructed at Mombasa, Nakuru, Water supplies. Eldoret and Kisumu. Those at Nakuru and Eldoret have, since construction, been sold to the Municipalities concerned.

57. Expenditure on Communications under the 1928 and 1930 Communications. loans to the end of 1933 included :—

	£
1. Road Survey of the Colony	33,731
2. Main Roads and Bridges	49,155
3. Feeder Roads	89,877
4. Makupa Causeway	45,120
5. Road Plant	49,939
Total Roads and Bridges £	267,822
6. Trunk Telephone, Nairobi—Nakuru	9,047
7. Trunk Telephone, Nairobi—Mombasa	33,138
8. Telegraph, Lugari—Bugoma	1,081
9. Telegraph, Nakuru—Eldoret	3,063
Total Telephones and Telegraphs £	46,329
TOTAL COMMUNICATIONS £	314,151

58. Loans to Local Authorities are expected to have been Loans to Local made to the full extent of the provision by the end of 1934. These Authorities. loans include :—

	£
Mombasa Municipality, mainly for Town Planning Purposes	191,726
Nairobi Corporation, for Various Purposes	282,847
Nakuru Municipality, for Purchase of Water Supply	21,000
Eldoret Municipality, for Various Purposes	11,008
TOTAL £	506,581

Effect of loan expenditure for Colonial development.

59. It will be seen from the above analysis that the loan expenditure incurred on the purposes mentioned has been wide-spread in its effect. The amenities of life have been greatly improved in the main centres of the Colony; better living conditions for Government officers have been provided in certain outstations; and the use of loan funds has led to improved communications and an extension of medical and educational facilities on a much wider basis than the annual revenues could have been expected to provide. To this extent, loan funds have supported the revenues in the effort to place on a better footing the necessary antecedents to a policy of greater production by the improved health and capacity of the population; but their effect on production must mainly be regarded as indirect.

Effect on revenue.

60. Their effect on the capacity of the Colony to meet its loan obligations in London is also indirect. The results of such expenditure are difficult, if not impracticable, to measure. But it should be noted in connection with loan expenditure on water supplies that these enterprises are revenue-earning and that in the case of Loans to Local Authorities the Local Authorities concerned are called upon to reimburse the Colony to the full extent of the interest charges payable by the Colony on this part of its loans and to make annual capital repayments calculated, on accumulation at an agreed rate of interest, to liquidate the debt of the Local Authority to the Colony on the expiry of the term of the loan. These capital repayments are invested by the Colony in its Sinking Funds and Supplementary Sinking Fund.

Loans for town planning purposes, Mombasa.

61. An exception in the case of Loans to Local Authorities is found in the case of the loans made to Mombasa for Town Planning purposes, half the interest charges on which have hitherto been borne by the State for reasons which need not be examined here. With this exception it may be stated that the loans made to Local Authorities from Kenya loan funds throw no net burden on the Colony's revenues.

Water supplies.

62. Whether the same conclusion can be reached in the case of Water Supplies depends on the profit and loss account of each Water Supply. It may be stated in general terms that both the Mombasa and Kisumu Water Supplies have, on balance, shown a profit and have therefore made a net contribution to the revenues over and above the interest, operation, and maintenance charges involved. The Eldoret Water Supply has been sold to the Municipality which received a loan from the Government to enable it to purchase the supply. The terms of that loan are such as to reimburse the Colony against the loan charges involved.

63. Taking into account the fact that telegraph and telephone services are revenue-producing, it may be stated that of the loan monies borrowed for Colonial Development totalling £3,953,792, a sum of £785,592, or approximately 20 per cent has been allocated to purposes which either reimburse the Colony in respect of the loan interest and sinking fund charges involved, or which are revenue-earning enterprises throwing no net expenditure in respect of such loan charges on the Colony's revenues.

64. After consideration extending over several years, the Land The Land Bank. and Agricultural Bank Ordinance became law in 1931. A sum of £240,000 was made available for Land Bank purposes in the 1930 £3,400,000 loan. The capital of the Bank was increased to £500,000 in August, 1933, a further sum of £260,000 being provided in the 1933 £305,600 loan.

65. In the case of both these instalments arrangements were made enabling the Land Bank to draw on the money as and when required. This arrangement has been of assistance to the Bank because it is only when it requires money to lend at interest to farmers to whom loans have been authorized that the Bank becomes liable to the Government for interest. Until such money is required by the Bank, general revenue bears the net charge involved between interest payments on the loan and the interest received on the undrawn capital.

66. The rate of interest charged by the Government against the Land Bank is calculated to cover the interest and administration expenses which the Government itself has to meet. In the case of the first instalment of £240,000, this rate is 4.7 per cent per annum; in the case of the second instalment of £260,000, the rate is 3.7 per cent. The average rate, when the whole capital has been issued, will therefore be 4.18 per cent per annum on £500,000, entailing a payment by the Bank of £20,900 per annum. By the end of 1933, £295,000 of the capital had been issued to the Bank and we understand that a further sum of £140,000 has been paid over to the Bank during the first nine months of 1934.

67. The Colony meets the sinking fund payments on the Land Sinking Fund payments. Bank capital which it has borrowed. The statutory minimum rate of contribution to the sinking fund is 1 per cent per annum and the Colony is now paying £5,000 per annum for this purpose. From the financial standpoint, therefore, money borrowed for Land Bank purposes constitutes an investment by the Colony. When

the Colony's loan has been repaid, the Colony will have an investment bearing interest from the Land Bank without any consequent obligation to meet interest charges in London.

Purposes of loans by Land Bank.

68. The purposes for which the Board of the Land Bank are empowered to make loans to farmers are defined by law. The limit for an advance to a farmer is £3,000. One of the requirements of the law is that, in all normal cases, no advance may be made except upon first mortgage of land within the Colony. An applicant for an advance must therefore produce a clear title and if on making the application the farmer has a prior encumbrance on the land, the Land Bank can only deal with it—

- (a) if the Board is satisfied that such prior encumbrance is onerous; and
- (b) if the Bank is prepared to make an advance for the purpose of discharging such prior encumbrance. The limit of an advance for this purpose is £2,000.

69. A recent amendment of the Ordinance has made provision for Land Bank loans to have priority over existing mortgages, charges or encumbrances if the mortgagee, chargee or encumbrancer signifies his consent in writing, and in the same amendment power is given to the Board to make temporary advances not exceeding £500 each, and repayable after not more than three years, for general farming purposes and to make advances to Co-operative Societies.

Interest on Land Bank loans.

70. The Land Bank exists for the purpose of promoting development and giving financial accommodation to farmers on proper security. It provides a form of finance suitable to farming, its loans being repayable in equal half-yearly instalments of capital and interest within such period, not exceeding thirty years, as may be decided by the Board. The rate of interest at present charged by the Bank on loans made by it is $6\frac{1}{2}$ per cent per annum. On a thirty-year loan the redemption and interest payments together work out at a rate of 7.62 per cent per annum. The Board recognize that a reduction in the interest charges on their loans would have far-reaching effects to the benefit of the farming community in particular and the whole Colony in general, but look upon the compilation of an adequate reserve fund as the very first consideration. By the end of 1933, after the Bank had been in existence for two-and-a-half years, the Reserve Account stood at a figure of £3,513.

71. By the end of 1933, loans to the extent of £306,050 had Land Bank loans been made by the Board for the purposes shown in the following actually made table. The total number of mortgages registered was 246, giving an average of £1,244 per mortgage.

Discharge of Existing Mortgages	..	..	..	..	£	124,975
Permanent Improvements—						
Buildings ..	..	..	..	..	14,946	
Wells and Boreholes ..	..	..	..	..	2,140	
Fencing ..	..	..	..	..	6,178	
Dip Tanks ..	..	..	..	..	3,260	
Irrigation Works ..	..	..	..	..	765	
Further Acreage—Coffee ..	..	..	..	..	12,567	
Further Acreage—Cereals ..	..	..	..	..	4,515	
Maintenance, Existing Coffee ..	..	..	..	..	32,485	
Maintenance, other Crops and General ..	..	..	..	..	17,504	
Tree Planting—Orchards ..	..	..	..	..	505	
						94,865
Purchase of Land ..	..	..	..	..	..	50,643
Purchase of Stock ..	..	..	..	..	..	24,073
Farming Operations ..	..	..	..	..	..	8,634
Purchase of Implements and Machinery ..	..	..	..	..	..	2,860
					TOTAL .. £	306,050

72. It will be seen from the above table that nearly 40 per cent Discharge of existing mortgages of the money involved in mortgages registered by the Bank was mortgages. required to discharge existing mortgages. There is no means by which we can judge the effect of this operation on the Colony as a whole as distinct from the individual farmer concerned. The individual farmer replaces an onerous mortgage by a long-term Land Bank advance repayable by equal instalments, the amount of which is generally less than the interest payable on his previous mortgage. This may mean the difference between the farmer's success and his failure. The Colony, which has invested money in the Land Bank as a State enterprise, relies upon the Land Bank to meet its interest obligations, and this the Bank can do if the payments due to it from its mortgagors are promptly met. But the question naturally arises what has been the effect on the Colony as a whole of mortgages aggregating nearly £125,000 being transferred from other mortgagees to the Land Bank? Has this led to investments by the mortgagees in other enterprises in the Colony, is the money lying idle here, or has any substantial portion of it been sent away from the Colony? We cannot answer these questions. We shall have occasion later in this report to refer to the fact that statistics are no longer being maintained which might assist towards a better understanding of the position. In the absence of such statistics, which would, of course, indicate the

general movements of money, not merely the effect of paying off mortgages by means of Land Bank loans, we do not find ourselves in a position to offer an opinion on the matter. We recognize that unless this money is re-employed in local enterprises, the Land Bank advance involved represents substituted and not additional capital invested in the Colony but, on the other hand, we feel very strongly that one of the main functions of the Land Bank in this country must be to open out to farmers the possibility of relief from onerous mortgages and that if, by such relief, the farmer can remain in production where without it he must fail, the Colony stands to gain, no matter what happens to the principal repaid, in every case in which the failure of the farmer would have led to the farm being left derelict. So long as the Land Bank is run on sound lines, we consider that the power to take over onerous mortgages within the limits prescribed by law must remain part of its charter.

**Loan charges
borne by the
taxpayer
as such.**

73. We have now examined in general terms the main features of the Colony's Public Debt. We have seen that a large part of it has been devoted to the development of Railways and Harbours serving Kenya, Uganda, and adjoining territories; and that of the remainder some has been re-lent to Municipalities, some has been invested in the Land Bank and some has been used in revenue-earning enterprises. The remainder, mainly used for the development of social services, communications, buildings and amenities in the Colony, creates a charge which has to be met in full from the revenues of the Colony. The extent of that annual charge is indicated in the following table. This table is intended to show the net burden borne by the taxpayer as such in respect of the Colony's Public Debt. It differentiates between the citizen as a taxpayer and the citizen as a user of the Railway and Port, as a ratepayer in a Municipality, as a consumer of water or a user of telegraph and telephone services. It cannot be in all respects complete, because some of the services brought into being in whole or in part by means of loan funds are indistinguishable from services of the same kind provided from revenue, and some necessitate the annual provision of money for operation expenses which may entail pension or other payments not readily ascertainable. In such cases it has been assumed, generally speaking, that a revenue-earning service conducted at a profit throws no burden on the taxpayer, but any net profit obtained after taking loan and operation expenses into account has been ignored, so that it has not been assumed that the taxpayer obtains any relief in respect of that net profit, as is, in fact, the case.

74. The table refers to the Colony's Public Debt as a whole, that is, to the amount borrowed, not to the loan expenditure actually incurred at the end of 1933, or any other date.

APPROXIMATE INCIDENCE OF ANNUAL PUBLIC DEBT CHARGES

TOTAL PUBLIC DEBT .. .£17,205,600

ANNUAL CHARGES	Interest	Sinking Fund	Total
TOTAL ANNUAL CHARGES .. .;	£ 871,196	172,056	£ 1,043,252
Reimbursed by, or Covered by,			
Earnings of—			
Railways and Harbours Administration .. .	685,012	132,519	817,531
Local Authorities .. .	21,086	5,061	26,147
Land Bank .. .	20,900	—	20,900
Water Supplies .. .	15,996	3,247	19,243
Telegraphs and Telephones .. .	2,467	548	3,015
Rents .. .	1,300	—	1,300
Interest on Unallocated Balances, say .. .	546	—	546
Total Revenue Items .. .	747,307	141,375	888,682
Balance Borne by Tax-payer as such	123,889	30,681	154,570
TOTAL ANNUAL CHARGES .. .£	871,196	172,056	1,043,252

75. Of the sum borne by the taxpayer, interest amounting at £39,331 and sinking fund to £6,555 are paid in respect of the item in the 1921 loan covering repayment to revenue of advances made from revenue for Military Expenditure in connection with War and purchase of reserve stores for Railway and Steamer Services. This is deadweight debt. Part of it is by nature a war debt and part of it represents stores in which the Colony has long since ceased to have any proprietary interest.

76. In closing this examination of the loan position mention should be made of the contingent liabilities involved in the original capital cost of the Uganda Railway from the Coast to Lake Victoria and of an outstanding claim for war expenditure. They amount, respectively, to £5,502,292 and £1,405,016, and settlement of these outstanding matters has been deferred. There is also a liability in respect of the rent of the Coast line which is technically within the domain of the Sultan of Zanzibar, and a debt to Zanzibar of £200,000 carrying interest at 3 per cent per annum. These two items entail an annual payment of £16,000, which is also borne by the general taxpayer.

77. The taxpayer, therefore, may be regarded as called upon to pay £170,570 per annum in his capacity as a taxpayer towards interest and sinking fund debt charges including rent for the

Kenya Protectorate. The balance of the annual debt charge, aggregating £888,682 is borne by the taxpayer as a ratepayer or a consumer of water and in other ways, or by the Land Bank from interest on its loans, or by users of the Railway in Kenya and elsewhere. The full annual charge, including the payments to Zanzibar, is £1,059,252. This sum has to be paid annually in London, and it is this sum which must be taken into account in assessing the effect of loan charges on the balance of trade.

The debt an extraneous debt.

78. One further point must be emphasized. The Public Debt of Kenya is an extraneous debt. All the loans floated by the Colony have been floated in London and with the exception of some small interest payments to local subscribers to the 1930 loan, all interest charges must be met in London. Sinking fund payments must by law be remitted to the Crown Agents for the Colonies. No loans have as yet been raised by the Colony in the local market. Within the boundaries of Kenya, therefore, the Government appears as a lender and not as a borrower. Outside the boundaries of Kenya, the Government appears as a borrower on a relatively substantial scale.

The Sinking Funds.

79. At the end of 1933, the position of the sinking funds was as follows :—

<i>Loan.</i>	<i>Sinking Fund.</i>
£5,000,000 (1921)	... £801,638 11 74
£5,000,000 (1927)	... £142,404 11 50
£3,500,000 (1928)	... £98,730 11 00

Investments held on account of the Supplementary Sinking Fund totalled £12,436-14-83.

Contributions to the sinking funds for the 1930 and 1933 loans commenced in July and February, 1934, respectively.

(C) THE COLONY'S BALANCE OF TRADE.

Absence of adequate statistical data.

80. At an early stage in our deliberations, we found ourselves restricted in our capacity to diagnose the present economic condition of the Colony and the trend of trade and money movements by the absence of adequate statistical data. The compilation of certain key figures has been discontinued since the virtual abolition of the statistical services at the end of 1933. In consequence, the information necessary for analysis of the situation is incomplete.

Difficulties of compiling statistics for Kenya alone.

81. Apart from this, the task entrusted to us refers to conditions in Kenya only, and the greater part of the statistics that are available relating to the balance of trade and the economic situation covers the wider area of the Kenya and Uganda Customs Union or the area served by the Kenya and Uganda Railway or the still wider area over which the East African Currency Board operates. Given

access to published statistics for Kenya, Uganda and Tanganyika, we believe a very complete analysis of the economic situation of this group of territories could be worked out; something approaching completeness might also be achieved covering Kenya and Uganda combined; but analysis of the Kenya position alone presents special difficulties which available information does not enable us to surmount.

82. We therefore find ourselves unable to deal with the balance of trade position in more than general outline except in so far as the visible trade balance is concerned. We have, however, made certain inquiries covering monetary and other transactions which have a direct bearing on the position and we give the gist of the information we have received on these matters.

83. Kenya and Uganda being one administrative unit for Kenya and Customs purposes, the main body of the statistics incorporated in ^{Kenya and} ^{Uganda one} ^{Customs unit.} the Annual Trade Reports relates to Kenya and Uganda as a whole and although of recent years some indication has been given of the visible balance of trade of Kenya and Uganda individually, the Commissioner of Customs makes it clear in his report that an accurate estimate on this basis is impracticable as, on the one hand, Kenya is largely a distributing centre and, on the other, the overseas trade of Uganda passes in the main through Kenya.

84. The figures given for Kenya and Uganda combined are Basis of compiled on what is, as near as possible, a strictly comparative values. basis, that is to say, the values are taken of goods in the ships' slings. Thus in the case of imports, goods are valued as they lie at the port of entry, plus landing (but not wharfage) charges. Such values exclude trade and cash discounts but include freight, insurance, and the value of the packages containing such goods, together with any commission paid. Exports are valued at the f.o.b. value at the port of shipment; and re-exports at the landed value as declared on original import entry.

85. In the Trade Reports of years up to and including 1931, Kenya and the trade balance has been calculated by comparing the total value ^{Kenya and} ^{Uganda trade} ^{balance.} of domestic exports and re-exports with the value of total imports less the value of imports on Government account. In the reports for 1932 and 1933 the trade balance has been shown both on the basis adopted in previous years and on the alternative basis of comparing the total value of domestic exports and re-exports with the value of total imports including imports on Government account.

86. Imports on Government account are classified into Kenya ^{Government} ^{imports.} Government stores, Uganda Government stores, materials for the maintenance and extension of the Kenya and Uganda Railways and Harbours and certain further categories. Further reference to

these imports will be made later. For the present it is only necessary to state that in the figures here given relating to the balance of trade, imports on account of the Governments of Kenya and Uganda have been included, not only because they affect the balance of trade position, but also because the statistics given for direct importations by Governments possess in themselves little significance as they necessarily ignore purchases by the Governments of goods imported as trade goods. If therefore it is sought to differentiate in any way between ordinary trade imports and Government requirements for imported goods (a differentiation which appears to have little meaning) no useful result is likely to accrue from statistics dealing solely with direct importations by the Governments and further research would be required to ascertain what was the annual value of trade goods imported which were eventually bought for Government purposes. There is no ready means by which this value could be assessed.

87. It should also be stated that the statistics available in the Trade Reports do not enable any satisfactory distinction to be made between Government imports on loan and revenue account. Statistics of this kind have not been kept and an inordinate amount of research would be required to separate loan from revenue importations, not only because it would be necessary to examine each entry regarding stores imported for specific works but also because large quantities of stores of a general nature imported for the Governments and the Railways and Harbours Administration are imported as unallocated stores, the work on which they are to be used being unknown at the time of importation.

Separate figures for Kenya and Uganda.

88. As previously stated the Commissioner of Customs finds it impracticable to give an accurate estimate of the visible balance of trade of Kenya and Uganda individually, but he has given the following figures as some indication of the position over the past six years :—

		Trade Imports	Exports and Re-exports	Balance
KENYA—				
1928..	.. ..	6,759,673	5,075,699	-1,683,974
1929..	.. ..	6,602,402	4,605,448	-1,996,954
1930..	.. ..	5,309,501	4,760,056	-549,445
1931..	.. ..	3,783,300	3,449,424	-333,876
1932..	.. ..	3,392,642	3,483,072	+90,430
1933..	.. ..	3,382,808	3,691,640	+308,832
UGANDA—				
1928..	.. ..	1,988,104	3,688,972	+1,700,868
1929..	.. ..	2,318,177	4,536,163	+2,217,986
1930..	.. ..	1,614,164	2,188,162	+573,998
1931..	.. ..	1,308,726	2,056,519	+747,793
1932..	.. ..	1,270,217	2,387,636	+1,117,419
1933..	.. ..	1,303,214	3,615,656	+2,312,442

89. The figures given above for the Kenya and Uganda trade Analysis of imports exclude imports on Government account. In the following Import figures. table trade imports and imports on Government account are shown separately :—

Year	Trade Imports Kenya and Uganda	Imports on Account of			Total Imports Kenya and Uganda
		Kenya Government	Uganda Government	K.U.R.&H.	
1928 ..	£ 8,747,777	234,180	127,689	1,290,669	10,400,315
1929 ..	8,920,579	304,076	205,343	904,119	10,334,117
1930 ..	6,923,665	229,660	162,680	772,944	8,088,949
1931 ..	5,092,026	124,077	90,943	440,838	5,747,884
1932 ..	4,682,859	112,586	56,003	43,124	4,874,572
1933 ..	4,686,022	88,447	63,835	60,410	4,898,714

90. The above table indicates the existence of another difficulty position of in attempting to analyse the trade position of Kenya separately, ^{the Transport} because materials for the maintenance and extension of the Kenya ^{Administration}. and Uganda Railways and Harbours are used partly in Kenya and partly in Uganda. An allocation between the two territories is therefore necessary, and this cannot be done with precision. From figures supplied to us by the Chief Accountant, Kenya and Uganda Railways and Harbours, we gather that, on the average over the past six years slightly more than one quarter of the total stores and materials imported by the Transport Administration have been used or consumed in Uganda. We have accordingly adopted this ratio.

91. On the imports side it is also necessary to consider the Specie. position of importations of specie on Government account. It is understood that figures given for Government specie importations refer to the face value of metal currency importations. Opinion may differ as to whether it is proper to include or exclude such specie importations from the trade balance statistics but it is scarcely open to doubt that if they are included they should be included at metal value and not at face value. All importations of specie on Government account have been shown as importations by the Kenya Government. This is likely to lead to confusion as the importations are in no sense Kenya Government importations. Unissued coin remains the property of the East African Currency Board. For present purposes, therefore, it seems preferable to omit all reference to these importations from the import figures.

Details of such specie importations are as follows :—

KENYA GOVERNMENT IMPORTS

Year	Specie	Other Imports	Total
1928..	£ 12,047	£ 222,133	£ 234,180
1929..	14,959	289,117	304,076
1930..	—	229,660	229,660
1931..	750	123,327	124,077
1932..	3,400	109,186	112,586
1933..	3,794	84,653	88,447

Trade in local produce between Kenya and Uganda.

92. A certain amount of trans-frontier trade in local produce occurs between Kenya and Uganda. The Annual Trade Reports give figures of quantities and values for Kenya produce exported to Uganda but no details are available before 1933 showing the value of Uganda produce consumed in Kenya. It is, however, stated that the value of Uganda produce consumed in Kenya was of small importance.

93. The values given for Kenya produce exported to Uganda and for Uganda produce exported to Kenya are as follows :—

	Kenya to Uganda	Kenya to Uganda	Uganda to Kenya
		£	£
1928	236,255	—	—
1929	189,938	—	—
1930	182,026	—	—
1931	146,166	—	—
1932	140,160	—	—
1933	117,303	74,672	

94. It is unfortunate that figures for Uganda produce exported for consumption in Kenya are not available for the years 1928 to 1932, more particularly as it is known that considerable quantities of Uganda sugar and of Uganda tobacco have been consumed in Kenya in recent years. But it is apparent that the trade in local produce between Kenya and Uganda, though it has been of great value to local industries, has not reached such dimensions as to constitute a factor of major importance in Kenya's visible trade position. The effect of this trade in local produce as between Kenya and Uganda, may, perhaps, be taken as improving Kenya's trade balance by something in the neighbourhood of £50,000 per annum for 1931 and 1932 and by something of the order of £100,000 per annum more or less from 1928 to 1930.

95. The figures of the visible trade of Kenya on the basis Kenya's visible trade outlined in the foregoing paragraphs are as follows:— balance.

	1928	1929	1930	1931	1932	1933
	£'000	£'000	£'000	£'000	£'000	£'000
Kenya Trade Imports ..	6,760	6,602	5,310	3,783	3,393	3,383
Kenya Government Exports excluding Specie ..	222	289	230	123	109	85
Kenya Share of K.U.R. &H. Importations ..	968	678	580	331	32	45
Imports of Uganda Produce, say	136	90	82	96	90	75
Total Imports ..	8,086	7,659	6,202	4,333	3,624	3,588
Kenya Exports and Re-exports	5,076	4,605	4,760	3,449	3,483	3,692
Exports of Kenya Produce to Uganda ..	236	190	182	146	140	117
Total Exports ..	5,312	4,795	4,942	3,595	3,623	3,809
Balance of Visible Trade	—2,774	—2,864	—1,260	—738	—1	+221

96. The above figures may be regarded as giving a reasonably close approximation to the visible trade position of the Colony. They cover a period during which expenditure on loan account, from being considerable in amount, dwindled to very small dimensions, railway and harbour construction having virtually ceased and the Colonial Loan building programme having been largely suspended.

97. Beyond this point we find it difficult to go. We spent considerable time examining the evidence regarding items in the ^{Balance of payments.} Colony's balance of transactions which do not appear in the trade returns but the information at our disposal was too incomplete to warrant our drawing any conclusion. Certain items are readily ascertainable. In this class we would mention the amounts payable annually in London on account of the Colony's public debt; pensions payments; pensions paid in Kenya on behalf of other Governments; and port revenue received from shipping. But with regard to many transactions we could obtain no reliable indication. The value to Kenya of the transport and entrepot services rendered within her boundaries, current remittances inwards and outwards to or by Kenya residents, importations of private capital, realizations on private capital account, and other transactions, which amount in the aggregate to a very considerable sum, are items which we have been completely unable to assess separately.

98. In the absence of information which would allow deductions of even approximate accuracy to be drawn as to the annual ^{Information inconclusive.}

value of transactions of this kind we consider that it would be misleading to draw up a statement showing merely those items as to which we have more precise information.

99. We should, however, like to refer to one or two factors which must be given due weight in considering the table in paragraph 95, and also to the information made available to us regarding remittances inwards and outwards through the banks.

**Importations
on loan
account.**

100. It is clear from the table that importations on loan account must have been considerable in 1928, 1929 and 1930 and, while we are unable to obtain figures distinguishing between Government and Railway importations on loan and revenue account, we consider that it would not be unreasonable for us to infer that the Government and Railway importations on normal revenue account have been in the neighbourhood of £120,000 per annum, and that any excess over that figure may, generally speaking, be attributed to loans.

101. We mention this factor because importations on loan account which are paid for by money borrowed in London provide an adverse factor in the visible trade balance which is met from sources not reflected in the trade statistics. Such loan monies must be regarded as an "invisible export" which has a direct bearing on the trade figures. In order to clarify the figures given for the balance of visible trade by the exclusion of importations directly attributable to loan works in progress, we make the tentative adjustment indicated in paragraph 100 with the following results :—

Year	Balance of Visible Trade (Para. 97)	Estimated Value of Imports on Loan Account	Balance of Visible Trade Excluding Esti- mated Value of Imports on Loan Account
	£'000	£'000	£'000
1928.. ..	—2,774	1,070	—1,704
1929.. ..	—2,864	847	—2,017
1930.. ..	—1,260	690	—570
1931.. ..	—738	334	—404
1932.. ..	—1	21	+20
1933.. ..	+221	10	+231

**Falling off in
progress of
development.**

102. If it is accepted that an excess of visible imports over visible exports in a young country is an indication of progress and of intensive internal development through credits from abroad, it follows from the above table that there has been a very marked falling off since 1929 in the progress of development in the Colony through such means apart altogether from the known slowing down of developmental expenditure from public loans.

103. We reach the same conclusion from an examination of Bank statistics of bank statistics for Kenya prepared by the Statistician to the Governors' Conference. The significance of the bank statistics in relation to the figures of visible trade is, however, a matter upon which we have been unable to arrive at any conclusion. We agree with the Statistician that this cannot properly be appraised until the Uganda Bank figures have been analysed. We give the figures as presented to us, but they are not available beyond the end of 1932, and do not, therefore, cover the whole field.

104. According to decisions taken last year the Statistical Department in its previous form has been abolished and the compilation of bank statistics has been discontinued. We greatly regret that this action should have been taken. The rapid and profound change in economic circumstances during the last three years renders it of the greatest importance to obtain information up to the most recent date possible. The bank statistics as published covered the period to the end of June, 1931. By the courtesy of Mr. A. Walter, Director of British East African Meteorological Services, we have been furnished with the figures covering the next eighteen months down to the end of 1932 but beyond that date they are not available and we understand that the information from the banks upon which they were compiled is no longer being collected. A series of index numbers by virtue of which the Government and the people of this Colony could gauge the trend of its economic circumstances, which depends for its utility upon unbroken continuity over a number of years, has therefore been abandoned and, apart from the special difficulties with which we have been confronted in dealing with the problems before us, we consider that the small savings effected by the discontinuance of this work have been secured at the expense of an important public service providing virtually the only means whereby many aspects of the internal condition of the country can be judged.

105. From the statistics placed before us we reproduce the following figures relating to bank remittances inwards and outwards :—

Year	Inwards	Outwards	Balance Inwards
1928	£'000 9,593	£'000 11,326	£'000 —1,733
1929	9,902	10,619	—717
1930	9,479	9,683	—204
1931	7,010	6,959	+51
1932	7,570	7,431	+139
1933	Figures not available		

106. These figures do not, admittedly, present a complete picture of financial transactions between Kenya and the world outside. But they do, in our opinion, show a tendency from which a substantially accurate conclusion can be drawn namely that there has been a marked decline in the volume of business and in the community's capacity to purchase goods from outside the Colony.

Unfavourable conditions in recent years.

107. In drawing our conclusions from the trade figures and statistics of bank remittances we desire also to emphasize that factors favouring development in the Colony by private enterprise have been greatly under-mined in recent years, partly by the world condition of depressed prices for primary produce, which has affected all agricultural countries, and partly by the adverse agricultural conditions occasioned by the incidence of locusts and drought which caused great damage from 1929 to 1933 on European-owned farms and in native areas in Kenya. These latter disablements will we hope, prove to have been but a temporary incident in the history of this Colony's development but in considering the export statistics which we do in the next section of our report, the disappointing returns in some commodities in those years must be attributed very largely to their influence.

(D) THE NATURE, QUANTITY AND VALUE OF THE COLONY'S EXPORTS.

108. The value of the domestic exports of Kenya during 1928 and subsequent years has been as follows :—

1928	...	...	...	...	£3,266,403
1929	...	...	...	...	£2,745,910
1930	...	...	...	...	£3,422,571
1931	...	...	...	...	£2,343,874
1932	...	...	...	...	£2,280,982
1933	...	...	...	...	£2,246,999

Fall in value of exports.

109. 1930 was a peak year in spite of the fact that prices had fallen considerably since 1929. Between 1930 and 1933 there was a fall of more than one-third in the value of Kenya's domestic exports and the indications before us are that, owing largely to seasonal conditions resulting in a later crop, a further decline will be experienced in 1934.

Details regarding commodities exported.

110. Nine commodities were exported from Kenya in 1933 to a value of £50,000 or more and we select these nine commodities for special analysis of the export figures.

COFFEE

Year	Quantity Exported	Approximate f.o.b. Value	Average f.o.b. Value per Ton
1928	Cwts. 211,663	£ 1,119,894	£ 105.8
1929	133,234	703,158	105.6
1930	310,168	1,427,536	92.0
1931	245,991	986,988	80.2
1932	276,041	1,214,392	88.0
1933	257,214	832,353	64.7
Average for Six Years..	239,052	1,047,353	87.6

SISAL

Year	Quantity Exported	Approximate f.o.b. Value	Average f.o.b. Value per Ton
1928	Cwt. 330,315	£ 495,959	£ 30.0
1929	312,954	553,572	35.4
1930	318,980	437,269	27.4
1931	319,880	232,564	14.6
1932	307,700	186,575	12.2
1933	397,000	249,868	12.6
Average for Six Years..	331,138	359,301	21.6

MAIZE AND MAIZE MEAL

Year	Quantity Exported	Approximate f.o.b. Value	Average f.o.b. Value per Cwt.
1928	Cwt. 1,005,566	£ 354,768	Sh. 7.06
1929	810,876	326,660	8.06
1930	2,294,135	586,851	5.12
1931	1,879,824	425,041	4.52
1932	520,543	119,133	4.58
1933	1,156,470	218,514	3.78
Average for Six Years..	1,277,903	333,494	5.22

SODIUM CARBONATE

Year	Quantity Exported	Approximate f.o.b. Value	Average f.o.b. Value per Ton
1928	Tons 78,255	£ 403,131	£ 5.15
1929	55,137	277,294	5.03
1930	49,270	222,305	4.51
1931	44,171	199,389	4.51
1932	37,263	169,972	4.56
1933	43,051	194,913	4.53
Average for Six Years..	51,191	244,501	4.78

HIDES AND SKINS—HIDES

Year	Quantity Exported	Approximate f.o.b. Value	Average f.o.b. Value per Cwt.
1928	Cwt. 54,735	£ 239,860	£ 4.38
1929	64,369	263,804	4.10
1930	46,066	115,112	2.50
1931	34,848	63,354	1.82
1932	53,506	87,067	1.63
1933	91,733	132,101	1.44
Average for Six Years..	57,543	150,216	2.61

SKINS (SHEEP AND GOAT)

Year	Quantity Exported	Approximate f.o.b. Value	Average f.o.b. per Thousand
1928	Thousands 1,703	£ 82,581	£ 48.49
1929	1,502	74,052	49.30
1930	1,709	66,131	38.69
1931	932	36,870	39.56
1932	524	16,167	30.85
1933	961	20,496	21.33
Average for Six Years..	1,222	49,383	40.41

TEA

Year	Quantity Exported	Approximate f.o.b. Value	Average f.o.b. Value per Cwt.
	Cwt.	£	£
1928	—	—	—
1929	70	738	10.54
1930	1,432	8,192	5.72
1931	3,158	16,795	5.32
1932	6,252	29,262	4.68
1933	17,462	76,667	4.39
Average for Five Years	5,675	26,331	4.64

SUGAR

Year	Quantity Exported	Approximate f.o.b. Value	Average f.o.b. Value per Ton
	Cwt.	£	£
1928	11,941	19,258	32.26
1929	15,645	25,503	32.61
1930	15,683	19,899	25.38
1931	21,709	24,930	22.98
1932	16,046	17,879	22.29
1933	82,644	66,963	16.20
Average for Six Years..	27,278	29,072	21.31

WATTLE BARK AND EXTRACT

WATTLE BARK

Year	Quantity Exported	Approximate f.o.b. Value	Average f.o.b. Value per Ton
	Cwt.	£	£
1928	101,619	39,112	7.70
1929	63,342	25,336	8.00
1930	131,160	44,650	6.81
1931	192,368	67,203	6.99
1932	236,545	78,811	6.66
1933	216,081	46,614	4.31
Average for Six Years..	158,186	50,293	6.36

WATTLE EXTRACT

Year	Quantity Exported	Approximate f.o.b. Value	Average f.o.b. Value per Ton
	Cwt.	£	£
1928	20,284	22,478	22.17
1929	21,777	28,310	26.00
1930	16,729	18,400	22.01
1931	6,073	6,028	19.83
1932	9,809	7,055	14.40
1933	28,759	20,150	14.01
Average for Six Years..	17,238	17,070	19.80

GOLD BULLION

Year	Quantity Exported	Approximate f.o.b. Value	Average f.o.b. Value per Oz.
1928	Oz. troy 1,909	£ 9,553	£ 5.00
1929	1,039	3,875	3.73
1930	1,987	7,835	3.94
1931	4,652	19,565	4.20
1932	14,344	61,375	4.28
1933	14,111	63,100	4.47
Average for Six Years..	6,340	27,550	4.34

Items next in order of value in 1933 were :—

	Quantities	Approximate f.o.b. Value	
		£	£
Simsim and Simsims Oil—			
Simsim	65,240 cwt.	36,761	
Simsim Oil	39,845 gal.	4,099	40,860
Wool	9,330 centsals	..	38,481
Butter	7,514 cwt.	..	27,268
Wheat and Wheat Flour—			
Wheat	118 cwt.	50	
Wheat Flour	41,076 cwt.	25,158	25,208
Cotton and Cotton Seed—			
Cotton	9,660 cwt.	23,584	
Cotton Seed	2,060 cwt.	309	23,893

Other items.

112. The total value in 1933 of the articles of domestic export already mentioned is £2,077,249. All other exports, including cedar slats, potatoes, meat, soap, essential oils, ivory, ghee, and a large number of other items were valued at £169,750 in the aggregate. To some of these articles the production of which for export appears to us to be capable of substantial development, we shall have occasion to refer in subsequent paragraphs of this report.

Monthly values of Kenya domestic exports.

113. From the Official Gazette of the Uganda Protectorate we have obtained statistics showing month by month the value of the exports of domestic produce of Kenya, the corresponding figures for the last two months being obtained direct from the Commissioner for Customs. The figures given are liable to adjustment later in the year. This explains the small discrepancy in the annual totals as compared with those given in paragraph 108.

VALUE OF PRINCIPAL KENYA DOMESTIC EXPORTS EXPORTED EACH MONTH FROM 1932 TO 1934

1932		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
		£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	
Maize and Maize Meal	.. ..	39	20	1	2	1	18	1	2	1	3	2	33	123
Coffee	.. ..	144	91	44	19	11	22	44	89	145	160	238	206	1,213
Sugar	.. ..	1	1	1	—	—	—	1	2	2	3	2	3	16
Tea	.. ..	2	1	1	1	1	3	1	3	2	3	6	6	30
Sisal	.. ..	5	9	13	15	15	15	17	26	20	17	19	17	188
Hides and Skins	.. ..	9	13	14	11	7	5	6	5	10	14	10	13	117
Wattle Bark and Extract	.. ..	13	7	11	4	3	4	8	9	9	10	4	4	86
Sodium Carbonate	.. ..	10	28	2	38	3	12	15	39	1	1	6	14	169
Gold Bullion	.. ..	5	4	4	4	6	4	5	5	5	7	6	6	61
All Other Items	.. ..	20	25	27	20	20	26	21	23	31	21	23	25	282
TOTAL £'000..	..	248	199	118	114	67	109	119	203	226	239	316	327	2,285

VALUE OF PRINCIPAL KENYA DOMESTIC EXPORTS EXPORTED EACH MONTH FROM 1932 TO 1934

1933	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
Maize and Maize Meal	56	67	20	32	19	5	3	2	2	2	5	5	218
Coffee	189	147	86	35	18	12	42	85	64	52	55	47	832
Sugar	—	—	17	20	1	—	8	12	8	7	1	74	74
Tea	6	5	8	8	6	5	3	—	6	6	7	6	66
Sisal	15	17	18	16	27	21	22	24	24	29	17	20	250
Hides and Skins	10	15	9	7	12	16	10	16	16	19	16	13	159
Wattle Bark and Extract	4	5	6	3	3	7	9	7	5	6	6	6	67
Sodium Carbonate	14	21	6	9	39	2	16	11	14	23	2	38	195
Gold Bullion	4	6	7	4	4	5	6	5	5	4	6	7	63
All Other Items	30	30	25	30	27	27	33	28	28	26	24	22	330
TOTAL £'000.. ..	328	313	185	161	175	101	144	186	176	175	145	165	2,254

VALUE OF PRINCIPAL KENYA DOMESTIC EXPORTS EXPORTED EACH MONTH FROM 1932 TO 1934

1934		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
		£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
Maize and Maize Meal		5	25	64	8	4	2	—	—	—	—	—	—	108
Coffee		47	79	87	48	21	28	—	—	—	—	—	—	310
Sugar		5	—	5	8	—	—	—	—	—	—	—	—	18
Tea		10	8	6	5	2	5	—	—	—	—	—	—	36
Sisal		25	17	39	24	34	20	—	—	—	—	—	—	159
Hides and Skins		22	19	17	17	20	10	—	—	—	—	—	—	105
Wattle Bark and Extract		6	4	8	7	10	4	—	—	—	—	—	—	39
Sodium Carbonate		10	8	12	15	1	12	—	—	—	—	—	—	58
Gold Bullion		6	9	8	8	7	5	—	—	—	—	—	—	43
All Other Items		29	21	22	21	43	20	—	—	—	—	—	—	156
TOTAL £'000.. ..		165	190	268	161	142	106	—	—	—	—	—	—	1,032

114. This concludes our statistical review. We have thought it desirable to give in some detail the figures relating to the financial, loan and trade position of the Colony because it is upon the position thus described that our recommendations must rest. In the next section of the report we shall deal with the conclusions we draw from the statistical review.

III.—GENERAL CONCLUSIONS FROM STATISTICAL REVIEW.

1924 to 1928.

115. The five-year period from 1924 to 1928 inclusive showed a steady increase in the Colony's surplus balances due to a succession of annual surpluses of considerable amount. These surpluses were achieved in spite of a steady rise in Government expenditure which increased by nearly £1,000,000 per annum gross over the period. Prices were relatively high, agricultural conditions were reasonably good, and steadily increasing revenues appeared to justify an expansion of services and an enlarged programme of developmental works whether from revenue or by borrowing.

Expenditure of loan funds.

116. The expenditure of loan monies during this period was considerable. Loan expenditure incurred between the end of 1923 and the end of 1928 amounted to over £8,300,000 excluding costs of issue of the loans floated during that period, an average expenditure on loan account of about £1,660,000 per annum. At the same time large quantities of private capital were being invested in the Colony. Customs revenue amounted to £607,776 in 1924; by 1928 it had reached a figure of £954,502. 1929 showed a further increase to £988,219. In such circumstances, the rising incidence of annual loan charges seemed well within the Colony's capacity, the fiscal system seemed admirably suited to the Colony's requirements and although imports largely exceeded exports no difficulty was anticipated in meeting the Colony's overseas obligations.

1929 onwards.

117. From 1929 onwards, however, the picture entirely changes. Overseas prices remained high in 1929 but agricultural conditions in Kenya were unfavourable. Since then agricultural conditions have remained unfavourable (with the exception of the year 1930) and there has been a disastrous fall in overseas prices. Beyond all this, there has been a marked fall in loan expenditure and the incidence of annual loan charges has continued to rise. Each year has shown a deficit; the surplus balances of the Colony have fallen from £879,307 at the end of 1928 to £205,495 at the end of 1933 and the cash position has deteriorated still further as

shown in paragraphs 24 and 25. The partial cessation of the loan programme in 1931 and the discontinuance of further borrowings on any substantial scale have thrown the Colony on to its own recurrent resources to meet its overseas obligations and the strain is becoming increasingly apparent. The value of Kenya trade imports has dropped by one half since 1928; Customs revenue totalled £600,417 only in 1933; and the balance of visible trade has moved from an "unfavourable" balance of £2,774,000 in 1928 to a "favourable" balance of £221,000 in 1933.

118. The Committee on Finance and Industry (the Macmillan Committee) deal in Chapter IX of their Report (Cmd. 3897) with the part played by loans in the development of raw material producing countries and the effects of a cessation in the stream of new capital. We quote the following passages from that chapter of their Report, which was published in June, 1931:—

Extracts from
the Macmillan
Committee's
Report.

"The substantial variations in the volume of international investment in recent years and especially the abrupt reduction in the last two years, have contributed largely to the troubles which have overtaken . . . the raw material producing areas of the world . . .

The supply of capital to overseas areas is for some countries an indispensable element in their development and, in so far as it is itself subject to irregularity, imports irregularity also into their economic life. For it is largely through capital movements that these overseas areas are linked up with the ebb and flow of economic activity in other, and particularly the capital exporting, countries of the world . . .

In part the capital borrowed is used in the employment of labour in constructing railways or other plant and is thus expended in the borrowing country itself. The borrowing country has acquired, through the loans granted to it, purchasing power in the lending country which it wants to employ locally. . . The local demand increases and imports are stimulated. The increase in the borrowing country caused by the expenditure of loan moneys provides the means of absorbing these additional imports.

Moreover, the adjustment of interest payments on capital previously borrowed frequently requires that there should be a steady stream of loan-moneys flowing towards these areas, so that the sums borrowed can be used to prevent a weakening of the exchange rate if, for any reason, it is impossible to meet interest payments by means of export of local produce. Ultimately it is to be expected that interest on loans should be

met out of the increased production made possible by the loans. If the increased production takes the form of exportable raw materials, the drafts drawn against the exports furnish the means of meeting the interest payments; if the increased production is in the form of general development (roads, etc.) the interest should be provided by taxation, which would reduce local spending power and thus diminish imports which would otherwise have been consumed locally . . .

It is unfortunate that, in practice, cessation of loans to raw material producing countries generally coincides with a period of lower prices for their products, and, conversely, large capital imports accompany higher raw material prices. This tendency is the natural outcome of the preference of investors, who are much more likely to lend to a country when it is prosperous and enjoying prices for its crops which are high relatively to the general level of prices. Thus the alternations of prosperity and depression are likely to be particularly severe in these countries, for the national income is in the one case inflated both by large sales at high prices and by the effects of the expenditure of loan proceeds, and in the other case deflated by the absence of loan expenditure and by small sales at low prices."

**Reduction in
loan expendi-
ture since 1928.** 119. The period of the depression has been accompanied in Kenya by a marked decline in the expenditure of loan funds. Over the six-year period from 1928 onwards the amounts so spent, excluding costs of issue and deduction for discount, have been :—

1928	...	...	...	...	£1,624,134
1929	...	...	...	...	£1,624,134
1930	...	...	...	...	£876,348
1931	...	...	...	...	£659,537
1932	...	...	...	...	£324,365
1933	...	...	...	...	£166,861

**Importation
of private
money.**

120. No statistical information exists upon which we can base an estimate of the actual amount of private money brought into the Colony including private capital and incomes received from abroad. We are satisfied that these must have reached a very substantial figure during the boom years. Their amount has since doubtless been drastically reduced but it is probable that current incomes from abroad still represent a considerable portion of the Colony's total income.

121. The broad position is that the Colony has large overseas obligations to meet which can only be met from its exports, from services rendered within the Colony to territories outside Kenya, or from the proceeds of loans, whether public or private, and credit or incomes received from abroad by persons resident in or visiting the Colony. Any surplus remaining constitutes the fund out of which imported goods are paid for. There are many unknown factors in this balance of transactions but it is clear that while some of the overseas obligations, such as public debt charges and pensions, have tended to increase the sources from which they have to be met tended to decrease up to the end of 1932, the last year for which bank statistics are available. Development in the gold mining industry and other enterprises entailing the investment of new capital will affect the position, we hope substantially, but the point we wish to emphasize here is that in present conditions it is necessary for the Government to maintain close touch with the Colony's balance of trade (in its widest sense) as well as to ensure a balanced budget. Overseas obligations are now so substantial that increasing difficulty must be experienced in obtaining overseas purchasing power to meet them. Everything possible must be done to increase the value of the Colony's exports and to encourage the inflow of new capital.

122. The years of depression in Kenya have been accompanied by the operation of internal deflationary factors also. Mean advances. quarterly bank loans and advances outstanding from 1927 onwards are given as follows in the analysis of bank statistics brought up to the end of 1932.

Year	To Agriculture	To Commerce	Total
	£'000	£'000	£'000
1927.. ..	2,354	1,422	3,776
1928.. ..	2,293	1,573	3,865
1929.. ..	2,407	1,560	3,968
1930.. ..	2,529	1,514	4,044
1931.. ..	2,246	1,452	3,698
1932.. ..	2,116	1,347	3,462
1933.. ..	Figures not available.		

123. A further factor which has been either actively deflationary or has prevented the inflationary action of increasing exports has been the fall in unit value of commodities exported. From the particulars given in Chapter II (D) the extent of the fall may be shown by expressing the unit values from 1929 onwards as index numbers of the 1928 values. The resulting index numbers of some important exports are shown below :—

1928 VALUE=100

	1928	1929	1930	1931	1932	1933
Coffee	100	100	87	76	83	61
Sisal Fibre	100	118	91	49	41	42
Maize and Maize Meal..	100	114	73	64	65	54
Sodium Carbonate ..	100	98	88	88	89	88
Hides	100	93	57	42	37	33
Wattle Bark	100	65	89	91	87	56
Sugar	100	101	79	71	69	50

124. These figures probably exaggerate the real extent of the fall. It is believed, for instance, that progressive falls in prices in the earlier years led to an overvaluation in shippers' declarations particularly in the case of coffee and wattle bark exports and that in the later years this position has been remedied. Again, the fall in value of sugar is partly due to the fact that previous to 1933 exports were mainly to the relatively high-priced market of Tanganyika Territory ; the expansion of production in 1933 and consequent overflow to the low-priced European market accounts for the large drop in value in 1933. Yet in the main the figures show the disastrous extent of the price decline in the period under review.

Prices of imported goods.

125. It might be argued that international trade is a matter of exchange of goods and services for goods and services and that in the same period prices of imported goods have also declined. This is shown in the following index numbers of values declared at customs on a small selection of commodities most suitable for comparison. This list has been chosen from the points of view of comparative importance in the import trade of Kenya and Uganda and of similarity in nature or in use over the whole period. The index numbers have been constructed on the base 1928.

**INDEX NUMBERS OF VALUES OF CERTAIN IMPORTED
ARTICLES AS DECLARED AT CUSTOMS**

	1928	1929	1930	1931	1932	1933
Cement, Building ..	100	106	100	86	75	64
Coal	100	94	87	80	95	76
Cotton Piece Goods—						
(a) Grey, unbleached	100	100	85	86	55	51
(b) Coloured	100	95	81	50	54	49
Galvanized Iron Sheets..	100	98	88	78	73	75
Jute Bags	100	90	76	65	61	57
Matches	100	106	101	98	92	90
Motor Spirit	100	87	76	62	45	36
Rice	100	95	85	61	63	54

126. Much discussion has centred around the effect of these factors on internal prices and the economic situation generally. As far as internal prices are concerned we are on uncertain ground because of the lack of statistical information. There has been no systematic collection of statistics relating to wholesale prices in Kenya. Certain retail prices were collected by the Statistical Department up to November, 1933, and published in the form of index numbers. The index numbers for 1933 are as follows :—

GROUPS OF ARTICLES	Base 1928 = 1000
Groceries and Provisions	862
Clothing	775
Sundry Household Articles	896
Motor Transport	918
Medicines and Patent Foods	961
Milk	725
Meat and Fish	814
Local Articles only	791
Imported Articles only	891
All Articles together	861

127. These particulars refer to Nairobi retail prices only, and it is well known that trade margins tend to change much more slowly than producers' prices. It is impossible to gather from the figures to what extent the price changes have been due to alterations in producers' prices and to what extent they represent changes in trade margins. This factor may be important since trade margins during the boom years were generally high. Price changes in retail goods are especially difficult to measure because of the large variety of goods, changes in the proportions of various kinds purchased, general changes in the nature and quality of particular articles, changes in the nature of the services rendered by retailers, in methods of packing, and so on.

128. Certain wholesale prices have been artificially controlled by governmental action or monopoly control, so that comparatively little change has occurred in the local market, as for example in the case of wheat, sugar and butter. Others have varied erratically owing to the isolation of the internal market, variations in production and producers' competition, as in the case of maize.

129. Generally speaking it is probably true to say that prices received by producers catering for the local market have declined much less than export values. With the shrinkage in incomes due to the fall in export values, the decline in capital importations, and the resulting policy of retrenchment which has fallen on all sections of the community, the only resource of the consumer has been to restrict his purchases. We have noted in other sections of this report how internal consumption has been reduced in the case of sugar and wheat flour.

130. It is of advantage to note in the same connection the effect upon imports. We give in the following table the retained imports of a small selection of goods. The selection has been made very roughly, but with the following principles in mind :—

The selected articles :—

- (a) To be consumers' and not producers' goods.
- (b) To be more or less constant in nature or fulfilling the same purposes throughout the period.
- (c) To be representative of non-native and native consumption.
- (d) To include articles from different countries.
- (e) To be of comparative importance in the import trade.
- (f) The imports into Uganda to be shown in the Trade Reports.

QUANTITIES OF CERTAIN CONSUMERS' GOODS IMPORTED INTO AND RETAINED IN KENYA DURING THE
UNDERMENTIONED YEARS

ARTICLE	Unit of Quantity	1928	1929	1930	1931	1932	1933
Rice	Lb.	140,109	136,894	135,077	129,424	111,576	118,833
Whisky, Rum, Brandy and Gin ..	Proof gal.	68,109	68,084	59,297	56,407	49,378	46,908
Tobacco—							
Manufactured (including Cigarettes, etc.) ..	Lb.	555,332	583,873	703,461	874,487	492,427	475,068
Unmanufactured ..	"	(—)36,971	102,273	55,573	40,935	20,525	61,223
Total Tobacco ..	"	518,361	686,146	759,034	915,422	512,952	536,291
Cotton Piece Goods—							
Grey, Unbleached ..	Yard	2,440,415	9,377,757	3,098,314	7,467,039	4,072,937	10,118,144
Bleached ..	"	1,401,370	823,218	1,321,585	1,026,620	1,141,521	796,178
Printed ..	"	3,167,698	3,162,900	3,141,390	2,387,210	1,423,113	700,441
Dyed in the Piece ..	"	1,651,566	2,120,512	1,698,435	2,367,319	2,381,101	2,449,143
Coloured ..	"	1,088,939	2,515,917	1,229,880	2,346,885	1,353,066	2,420,700
Total ..	"	9,749,788	18,000,304	10,489,604	15,595,073	10,371,738	16,484,606
Cotton Blankets	Number	1,298,698	1,701,235	1,133,986	890,040	903,967	749,037
Boots and Shoes	Doz. pairs	7,370	8,438	13,097	13,984	20,064	15,419
Motor Spirit	Imp. gal.	3,071,255	5,855,993	4,758,420	5,500,912	3,311,826	1,550,483
Mineral Oil, Illuminating or Burning	"	2,748,435	3,459,009	4,427,332	1,502,893	1,752,094	944,370
Motor Cars	Number	1,168	984	855	558	308	324
Beads	Lb.	170,763	98,117	44,643	59,637	26,107	32,888
Lamps and Lanterns	Number	50,855	65,583	76,811	85,006	6,296	22,426
Matches	Gross box.	80,817	63,750	29,131	47,695	39,792	46,576

131. It will be seen from the table that most of the articles shown have decreased in volume over the period covered by the table. Exceptions are cotton piece goods, tobacco and boots and shoes. In these cases there have been pronounced reductions in retail prices during the period, and a plausible explanation is that these reductions have had the effect of maintaining volume of sales at the former level. Many factors may possibly have entered into the situation, however, and we do not desire to pursue the matter further than to say that the reduction which we have noted in sales of certain local products has extended to most classes of import goods. The reduction in values of import trade has been due not only to fall in price but also in a large measure to reductions in quantity.

**Incidence
of fixed
charges.**

132. On production the effect of the fall in the price level has been severe. In European agriculture certain costs, such as wages, have been reduced to a considerable extent, but certain other charges are fixed charges not susceptible of reduction. Both European and native agriculture are affected by costs of transport.

133. Costs of transport have not decreased with the fall in prices. They have, on the contrary, shown a tendency to increase during the past six years. But even if transport costs had remained constant it is evident that the fall in world prices does not represent the measure of the fall in the return to the grower. If the world price of a commodity has fallen by one half since 1928 and the cost of transporting that commodity to the market has remained stationary at, say, one quarter of the 1928 price or one half of the 1933 price, the fall in price is one half, but the fall in return to the grower is two-thirds.

134. This effect is pronounced particularly when transport costs are high in proportion to the value of the article. In preparing the following table showing the fall in f.o.r. values since 1928 for six selected commodities we have assumed no change in export costs. To the extent that export costs may have increased since 1928 the decrease in f.o.r. value will be proportionately greater :—

	London Price		Export Costs	f.o.r. Value		Decrease in f.o.r. Value
	1928	1933		1928	1933	
Wattle Bark per ton ..	Sh. cts. 240 00	Sh. cts. 115 00	Sh. cts. 79 00	Sh. cts. 161 00	Sh. cts. 36 00	78
Maize per bag ..	15 80	7 90	4 70	11 10	3 20	71
Sisal per ton ..	690 00	320 00	149 00	541 00	171 00	68
Sesame per ton ..	440 00	235 00	116 00	324 00	119 00	63
Butter per cwt. . .	165 00	80 00	22 00	143 00	58 00	60
Coffee per cwt. . .	107 00	64 00	17 50	89 50	46 50	48

(NOTE.—In order to show the effect of the fall in the price of sesame during the latter part of 1933 and in 1934, the latest price has been substituted for the 1933 price.)

135. A further factor which imposes an added burden on agricultural production is interest on loans and repayment obligations. Agricultural indebtedness.

The extent of agricultural indebtedness is another of those factors on which little statistical information exists. A committee of the Board of Agriculture in 1932 expressed the opinion that the total amount was probably between £4,000,000 and £5,000,000, but we are not aware on what evidence this opinion was based. According to figures given to us by Mr. Walter, loans and advances to agriculture outstanding in the books of the Kenya banks at the end of 1932 amounted to £2,116,000 and we have noted that by the end of 1933 loans to the extent of £306,050 had been made by the Land Bank and that advances outstanding in the accounts of the Agricultural Advances Board on the same date amounted to £110,244. We have endeavoured to supplement this information by data relating to the amount advanced on mortgage of agricultural land by private persons, but without success.

136. Kenya producers are suffering in common with producers in many other agricultural countries in having assumed obligations with a fixed liability at times of high prices. The prices of agricultural products have never been stable and it is difficult to see how they ever can be. Agricultural capitalization has shown a general tendency to approach or even exceed the levels based on the peaks of the price curve. The boom conditions which prevailed about 1928 in Kenya coupled with the subsequent severe fall in prices has brought about a critical situation.

137. An increase in production for export is essential. The Increase in value of Kenya's domestic exports in 1933 was £2,246,999—the lowest figure recorded since 1924 when the value was £2,239,614. Annual loan charges borne on the Colony's budget (including those reimbursed to the Colony by the Kenya and Uganda Railways and Harbours) have increased during the same period from about £340,000 to about £995,000. Money borrowed in London has been the means of creating and extending a large transportation system to serve Kenya and Uganda. This system is equipped to handle any quantity of produce these territories will be capable of producing for many years to come. The commitments entailed by way of annual loan charges are external commitments and can only be met by efforts involving external transactions.

138. It has been suggested to us that in view of the low world prices at present ruling for primary produce special efforts should be made to develop the home markets available to local producers. We agree that much good would follow the wider local consumption of commodities and articles produced locally, but development confined to production for local sale will not enable the Colony to meet its

overseas obligations. We recommend, therefore, that Government should press forward in every possible way the production of commodities for export. We believe that more vigorous steps towards this end can and should be taken by Government and we say this without wishing in any way to belittle the action that has been taken in the past. What we press for is the adoption of a positive policy of promoting production on a definite and sustained plan directed from headquarters.

We believe that it is essential for such a drive that there should be some measure of its practical effects and that its progress should be under constant review in order that experiments may be judged by results and that information may be available for constant scrutiny so as to ensure that the efforts made are well directed.

**Government
action in
relation to
non-native and
native pro-
duction.**

139. We have put forward this recommendation in general terms but it is obvious that its more detailed application will be dissimilar in kind as between native and non-native production. The functions of the Government in relation to non-native production are not so much concerned with directly stimulating production as with research, inspection, grading and other services rendered by the Department of Agriculture, with legislative action, and with the adoption of a policy calculated to enable produce to reach its market as smoothly, efficiently and cheaply as circumstances permit. The stimulus to non-native production comes from the individual search after profit, a stimulus well recognized by those who invest their money in enterprise. But with native production, the Government can do more than all this. The native producer in Kenya requires guidance in cultivation and soil preservation, assistance in the selection of crops suited to his land and in getting seed likely to give the best results, advice in regard to the marketing of his produce and instruction in many other ways. Furthermore, in his case it may be said that the stimulus to produce more than is required for his immediate ends is less strongly developed than it is with non-native producers.

**Stimulus in
native areas.**

140. The main differences from this point of view between native and European production may be summarized in the words education and organization. With European production in Kenya there is not only the initial advantage possessed by an educated community but many of the industries have become highly organized and such organization is being steadily increased. The Kenya Farmers' Association, the Kenya Co-operative Creameries, the Coffee Board, the Sisal Growers' Association and other organizations of a similar kind are instances of this. Where such organizations exist, the industry concerned secures a co-ordinated

means of dealing with its interests and promoting its welfare and where legislative or other action on the part of the Government is desired the case can be adequately presented.

141. But with native production this state has not been reached and action which the Government is not called upon to take of its own initiative in respect of non-native production may be, and in our opinion is, necessary in dealing with native production. The evidence before us is that a great deal of extremely useful work has been done by individual officers in the native reserves. That work should be extended and developed. On the other hand, we have concluded from the evidence that the degree of stimulus applied to native production in a district depends too much on the personal characteristics of the officers in charge and too little on a widely-organized and comprehensive plan of direction looked upon as a fundamental objective of Government policy.

142. We deal more fully with the matter in later chapters of our report. We have referred to it in general terms at this stage in order to emphasize our view that co-ordinated action by Government officers along lines decided upon by the Government itself and fostered and maintained from headquarters can do much to improve the economic condition of the Colony.

VI.—THE INDUSTRIES.

143. In this section of our report we discuss the present position of the more important industries as represented to us in evidence, either oral or by memorandum, and consider proposals made for their maintenance and development. Generally speaking, we deal with these industries in the order of their value to the Colony on the export market as indicated in the Trade Report for 1933, but in regard to some industries, mainly or entirely associated with native production, we have reserved reference for Chapter V and in regard to certain other industries, notably sodium carbonate and wool, we have received no representations and do not therefore deal with any questions relating to them.

THE COFFEE INDUSTRY.

144. The present condition of the coffee industry in Kenya is ~~Present~~ condition. one of semi-development. There are 102,238 acres of land planted with coffee of which 65,643 carry trees over six years old, the balance of 36,595 acres being under young trees. Of the fully bearing area of 65,643 acres, a considerable part is in process of renovation following faulty cultivation and experimental work.

The industry as a whole has weathered the depression but retrenchment and reduction of costs have not always kept pace with the fall in prices and loss of crops. In many cases individual farms are therefore in a serious position.

The position is further complicated by the fact that the industry is passing through a transitional period. Methods of marketing are now being investigated with a view to their readjustment to changed conditions. The question of research and general coffee services are also being considered in a new light.

Yield.

145. The acreage in production, regarded as the total acreage under coffee, less trees under three years old, is 88,192 acres, but not all of this is in full production, and in many districts production from trees between three and six years old is very small. It is, therefore, impossible to give any reliable figure as to the yield from acres of fully productive coffee. The general average is said to be from four to five cwt. per acre.

Cost of production.

146. We are informed that it is practically impossible to give figures of costs of production covering the whole industry. This is due partly to the fact that coffee planting on certain farms is associated with other farming industries, which makes accurate allocation of costs impracticable, partly to the difficulty of obtaining returns, partly to the fact that the inclusion of statistics from uneconomic coffee propositions must affect the value of any conclusion reached, but mainly because figures of costs from estates in the process of development include expenditure incurred on immature areas which amount to about 36 per cent of the whole.

147. We examined the position with the Chairman of the Coffee Board, and agree with him that any figures quoted as to costs would be misleading. We may add that the Coffee Board hold the view, on present information, that the costs of production vary in inverse ratio to the size of the producing unit. The larger units are capable of being farmed more economically.

Principal disabilities.

148. The information given to us by the Coffee Board is to the effect that the chief disabilities under which the coffee industry is labouring are :—

- (1) Adverse finance.
- (2) Lack of organized marketing.
- (3) Lack of adequate facilities for research into coffee problems.

Proposals.

149. With regard to proposals submitted for our consideration, the Board confine their attention to three points :—

- (a) Land Bank finance.
- (b) Research.
- (c) A reduction in ocean freights.

150. In all other matters the Coffee Board feel that, as they are the duly constituted body formed for the advancement of the coffee industry, they are the proper authority to originate and develop plans to that end. We are in complete agreement with that opinion. In our view, the existence of a representative body—in this case established by law—which is charged with the duty of watching over and promoting the interests of a particular industry, makes it both undesirable and unnecessary that we, under our terms of reference, should duplicate consideration of questions relating solely to that industry, and frame recommendations on the matter. We agree with the Board that no good purpose would be served by proposals affecting the coffee industry as such emanating from more than one source, and that that source, as far as coffee is concerned, should be the Coffee Board.

151. In these circumstances, we have left it to the Coffee Board to take such steps as may seem good to them in dealing with the organization of marketing of coffee, co-operation among growers, and other questions peculiarly affecting the coffee industry, including research which, we understand, is under close examination by the Department of Agriculture and the Coffee Board.

152. With regard to ocean freights, we are making a general recommendation in a later passage of our report intended to provide machinery by which representations by or on behalf of the various industries on the subject of freights may receive joint consideration by a body in which local and shipping interests are represented.

153. We deal also with the question of Land Bank finance in a later chapter of our report. The recommendation we there make for an increase in the capital of the Land Bank is accompanied by and contingent upon a recommendation that the monetary limits to advances by the Land Bank should be increased and as our recommendation in this matter is largely prompted by the fact that the present limits do not enable Land Bank finance to be made available to many sound applications from coffee farmers, we feel that we should, at this stage, refer to certain statistics placed before us by the Coffee Board indicating the importance of the coffee industry to the Colony, and to the case as presented to us for the terms of the Land Bank Ordinance to be widened so as to enable greater advantage of Land Bank facilities to be taken by the coffee industry.

154. The Coffee Board recently circulated a questionnaire to all coffee planters and received returns from 639 estates. Of these 418 were engaged almost entirely in the production of coffee and had a total holding of 445,963 acres of land, 62,535½ acres of which were planted with coffee. The total production of these farms in

the season 1932-33 was 11,384 $\frac{1}{2}$ tons, or 75 per cent of the total crop for the Colony. For the past three years the crop produced by these farms has averaged 73 per cent of the total. The other 221 farms from which the Board received returns comprised 287,720 acres of land of which 10,588 acres were planted with coffee, but these were mixed farms, and the relative statistics were naturally difficult to extract for inclusion in statistics referring to the coffee industry alone. The Board consider the data collected from the 418 coffee farms previously mentioned to be representative of the industry as a whole. The capital invested in these 418 farms is stated to be approximately £4,500,000.

155. The average value of the coffee exported over the past three years has been given at 47 per cent of the total exports of the Colony. For the year 1932 the figure was 61.7 per cent of the total. The coffee industry as a whole gives employment equivalent to the full time services of 50,000 natives. From this figure it is estimated that maize meal issued as rations to employees on coffee estates approximates 16,000 tons per annum, largely bought from native sources.

156. There are 929 coffee growers, representing 45 per cent of the total number of occupiers of agricultural holdings and in addition to the large number of owners managing their own farms the industry gives employment to 683 Europeans. Business, commerce, and property values in the Colony owe much during the recent years of depression to the stability of the industry as do also the revenues of the Colony and the Kenya and Uganda Railways and Harbours. The mean rate on the railway for all coffee exported is about Sh. 62 per ton, which is the highest rate of any of the main exports from Kenya.

157. The probable increase of crops in the future should also be mentioned. The Agricultural Census Report for 1934 gives the total acreage of planted coffee as 102,238 acres, of which only 65,643 acres are fully mature. 14,046 acres are still under three years old and 22,549 acres are between three and six years old. By 1939 these immature areas will have reached maturity and production therefrom will increase the average yield of the Colony.

158. In addition to this increase in productive acreage there is the factor of improved farming and culture. For the past three years there has been, generally, a higher expenditure than formerly on manures, fertilizers and spraying which, coupled with improved farming in other directions, resulted in the production of a record crop in 1932-33 with the highest yield per acre yet recorded. This would have been followed by a still larger crop and yield in 1933-34

had crop prospects not been ruined by drought. Plantations also would not have suffered from the effects of a bumper crop to anything approaching the same extent as has been the case in the past. If the coffee planter is able to continue working on these lines, the yield per acre and the security of the industry will be increased together with its value to the Colony.

159. Further evidence of the value, both present and prospective, of the coffee industry to the Colony seems unnecessary. The case submitted to us is that it should be possible for this industry to share in permanent and stable credit facilities on the lines offered by the Land Bank. We endorse this view, acceptance of which entails the provision of further funds for the Land Bank and a concurrent increase in the monetary limits placed upon advances by the Land Bank.

160. Given further capital and an increase in the authorized limits, the Land Bank can do much to assist the coffee industry. It is stated that the industry is paying interest at an average rate of 8 per cent and that this, on the average production over the past three years, shows a total charge of £10-11-0 per ton produced. The provision of funds on Land Bank terms can materially help this industry the healthy condition of which is all-important to the welfare of the Colony.

THE SISAL INDUSTRY.

161. According to the latest Agricultural Census there is a total Acreage and present position. of 141,495 acres under sisal, of which 111,735 acres are over three years and 29,760 acres under three years. In the ordinary way the acreage over three years can be taken as that in production, but at present there are some estates which have been unable to provide finance to purchase machinery to bring them into production. There are no figures available as to the acreage of sisal which such cases represent. The industry may be said to be in a depressed condition on account of the low prices which have been ruling for the past three or four years.

162. Details given to the Committee as regards costs of production show a total of £14-1-6 per ton c.i.f. which excludes development cutting out and assumes that there are no overdraft interest charges. That estimate is based on steady economic production. If the estate is not fully producing, costs will be higher and new estates with large production can possibly produce rather more cheaply. Railage charges have been taken at an average figure of Sh. 30 per ton and ocean freight at Sh. 60 per ton but some estates bale down to about 65 cubic feet in which case the freight would perhaps be Sh. 16 per ton less than the figure given. Costs of production.

Development cutting out.

163. As previously stated, the cost of £14-1-6 shown per ton c.i.f. excludes development cutting out. Until recently, the cost of development per ton of sisal was taken to be Sh. 60 to Sh. 80 per ton, and in so far as estates are still cutting the older areas, this figure must apply. Recent agricultural improvements and new methods of planting have, however, reduced this cost considerably and on a new estate, it may be taken as something between Sh. 30 and Sh. 50 per ton.

Future trend of costs.

164. As an indication of the economies which sisal estates have made, it may be stated that in 1930 the average cost of production on reasonable sized estates was assessed at approximately £31 per ton c.i.f. The Kenya Sisal Growers' Association, to whom we are indebted for this information, finds it difficult to see how further economies can be made. For some considerable time the staff (both European and native) on estates has been reduced to the absolute minimum. There is on the contrary the possibility that labour will tend to cost rather more, especially in view of recent increases in the price of posho. In the opinion of the Association, any future tendency of costs must be upward, because as the price has for some time been below the cost of production, repairs, replacements etc., have been reduced to a minimum and this may tell, to some extent, in future years.

Average sale prices.

165. The figures of costs given above are c.i.f. costs London or European ports. The approximate sale prices in London during the past five years for No. 1 sisal have been :—

1929	...	...	...	...	...	...	£40
1930	...	...	...	...	...	...	£26
1931	...	...	...	...	...	...	£16
1932	...	...	...	...	...	...	£14 10
1933	...	...	...	...	...	...	£16

These are average figures. It is impossible to give accurate information without reference to each parcel of sisal sold.

Co-operation.

166. So far as the production side is concerned, the Association does not consider compulsory co-operation practicable or desirable. There may be advantages in co-operation between a few neighbouring estates, but they should be left to approach this themselves, as it can only be viewed from a commercial angle.

167. On the selling side, co-operation might prove of some assistance in co-ordinating a selling policy, and the Association has on several occasions gone into the matter very fully. It is, however, not practical politics on account of the heavy commitments of estates

to various merchant houses. Furthermore, co-operation in Kenya would not serve any useful object unless Tanganyika with its much bigger production was also brought into the scheme. It is principally on account of the shipment of unsold parcels from Tanganyika that suggestions have been made for co-operation in selling.

168. As in the case of the coffee industry, the sisal industry possesses a representative organization examining its particular needs and watching over its interests. We do not, therefore, feel called upon to go in detail into matters affecting the sisal industry alone. We understand, for instance, that the question of research has been very fully examined already with Your Excellency's Government and the Government of Tanganyika. Legislation has recently been passed to provide money for research purposes. We understand also that representations regarding the provision of funds to equip the industry with up-to-date machinery have been placed before Your Excellency and the Secretary of State, and that these proposals have received attention. We have not, therefore, felt that any useful purpose would be served by our examining the proposals to this effect.

169. The Association informs us that apart from the serious effects of low prices and drought the principal disabilities affecting the industry are high railway rates, high port and shipping charges and high ocean freight rates. There is severe competition from sisal from Java and Mexico, and for certain uses there is also severe competition from Manila hemp.

170. In connection with railway rates and port charges, it is to be noted that no reduction has been made in spite of the fact that the price of sisal has fallen from about £40 per ton to £16 per ton in 1933, and even less to-day.

171. The Association considers that the prospects of local manufacture of articles from waste materials which cannot at present be profitably exported are promising. A small bag factory is under contemplation.

THE MAIZE INDUSTRY.

172. The problems of the maize industry in Kenya are some of the most difficult and important problems with which this country has to deal.

Maize must be regarded as an essential crop. Its production in Kenya is one of the Colony's greatest safeguards against famine for it is now a staple food of most of the native population and apart from famine considerations it is required in large quantities as a

basic factor in all other local industries. We regard the maize industry as of vital importance to the economic welfare of the Colony.

Fall in prices.

173. But in Kenya, as in other maize-producing countries, the whole future of the industry that has been built up is menaced by the catastrophic fall in the price obtainable on export. The average f.o.b. value of maize for export in 1933 was Sh. 3/50 per bag as against Sh. 12/40 in 1929, Sh. 13/82 in 1925 and Sh. 13/20 in 1921. It was because maize production showed prospect of profit that the Economic and Financial Committee of 1922 (the Bowring Committee) advocated concentration by both European and natives on establishing an export trade in the commodity, secured the acceptance for it of specially low export rail rates and suggested certain measures calculated to maintain the repute of Kenya maize on the world's markets.

**Recommendations of
Economic
Financial
Committee
of 1922.**

174. We take this opportunity of quoting the following passages from the Report of that Committee :—

"Recommendations were made to the Government on April 7th (1922), to the effect that the first object to be aimed at in the endeavour to re-establish the financial and economic equilibrium of the Colony was to foster and develop, by every possible means and with the least possible delay, an export trade in some easily produced local bulk commodity for which there was a steady and virtually unlimited demand in the markets of the world."

The Committee recommended that the establishment of such a trade could best be achieved by concentrating upon the production of maize both on European farms and in the native reserves. In support of this they observed that maize was easily grown and harvested over wide areas of the country. European farmers already considered it worth their while largely to increase the areas under its cultivation in the hopes of building up an export trade. This being so, it followed that there was an even greater opportunity for the natives, with their lower overhead charges and costs of production, to increase the output of maize in the reserves. The greater the bulk available for export the lower must be the cost of placing it in its final market so that increased general production would be to the common benefit of the European and native producer.

The Committee . . . considered, having taken a great deal of evidence regarding costs of production, transport and handling in relation to the prices offered on the London market, that a *prima facie* case had been made out for the adoption of the policy they had outlined. . .

They were convinced that the increased production for export of some easily produced local bulk commodity was a matter of urgency and were satisfied that maize, in particular, could be produced at a profitable rate in areas not too remote from the railway system."

175. Statistics placed before the Economic and Financial Committee in 1922, relating to the year 1920-21 indicated a total maize production in Kenya of 99,227 tons of which 14,975 tons represented European production and 84,252 tons native production. Of the total, it was estimated that 92,505 tons were consumed or standing in the country while 6,722 tons or 134,440 cwts. were exported, the export value being £49,742.

176. The quantity of maize exported showed a rapid increase in the years following the Bowring Committee recommendations. The quantities of maize and maize meal exported as shown in the Agricultural Census Reports has been as follows :—

Year	Maize	Maize Meal
	Cwt.	Cwt.
1922-3	834,408	—
1923-4	1,147,644	8,923
1924-5	1,219,042	18,864
1925-6	852,049	53,125
1926-7	1,965,550	106,207
Period changed to Calendar Year		
1927..	1,787,665	91,425
1928..	892,660	112,906
1929..	764,770	46,106
1930..	2,222,549	71,586
1931..	1,859,517	20,307
1932..	514,917	5,626
1933..	1,131,549	24,924

177. The export figures for 1928, 1929 and 1932 were adversely affected by locusts and drought. These conditions not only reduced the average yield per acre on European farms but caused food shortages in certain native areas and in Uganda which led to a greater proportion of the total maize crop being required for local consumption.

178. We have already referred to the steps taken in 1930 in the attempt to minimize the damage threatened to the maize industry by the collapse of prices on the export market under which, on the crop exported in 1929-30 refunds were authorized, to the extent of £35,000, of the whole or part of the railway rates and port charges and, on the crop to be exported in 1930-31, a loan free of interest

was made to the industry guaranteeing in effect a minimum return to the grower of Sh. 6 per bag f.o.r. Kenya main line stations in respect of that export crop. We have also seen that the average f.o.b. value of maize and maize meal exported as given in the Annual Trade Reports fell from Sh. 8/06 per cwt. in 1929 to Sh. 3/78 per cwt. in 1933.

Effect of present prices.

179. One of the fundamental prerequisites of the policy of stimulating maize production for export was that it should be possible to produce maize over a wide area at a profit on the export market. The other was that the country was suitable for maize production. The latter condition still holds good. Experience has shown that large areas of the Colony are eminently suited to maize production, the yield per acre being comparatively high. But the former at 1933 world prices is subject to severe qualification. As an export crop for production on European farms, maize cannot show a profit at those prices save where exceptionally suitable conditions give a yield per acre considerably higher than the average.

Local support necessary.

180. In these circumstances the maize industry, which we hold to be an essential industry in the Colony, must receive and be able to rely upon support from local consumers. Without such support it will be in grave jeopardy and one of the principal safeguards against widespread famine in native areas will disappear. The information given to us is that native production does not now and has not in the past sufficed to supply the local market.

Proposals.

181. The proposals which the maize industry, as represented by the Kenya Farmers' Association, have asked us to consider for the maintenance and development of the industry are as follows :—

- (1) Some form of compulsory co-operation or a scheme whereby all growers, European and native alike, will participate pro rata in the export of maize as well as in the local sales.
- (2) A reduction in the marketing costs so that Kenya-grown maize will be enabled to compete on the world markets on more equal terms with its competitors, South Africa, and Rhodesia.
- (3) Facilities to borrow at reasonable rates of interest so as to consolidate their present indebtedness at a lower level and obtain security against foreclosure.

Compulsory co-operation.

182. We have already indicated our view that in dealing with an industry so vital to the general welfare of the country, a national effort should and must be made to assist that industry, and we regard the local maize industry as one in regard to which such a national effort should be made.

183. Where there is an Association such as the Kenya Farmers' Association, which handles 90 per cent of the export maize, then the grower who remains outside the Association must be able to get a higher return for his maize than the member of the Association, as the policy of the Association is to maintain the internal price above export parity. The non-co-operator sells the whole of his maize at the higher local price and takes none of the burden of the low export price. The whole, or practically the whole, of the native-grown maize comes under this category.

184. Production costs have fallen considerably but not to the same extent as the world value of some of the primary products, such as maize, dairy produce and wheat. The countries of the world are all endeavouring to find some method of assisting the primary producer and keeping him on the soil. The main fact agreed on by the World Economic Conference last year was that the return to normal was more dependent on the primary producer being put into a position to sell the result of his labour at a profit than any other factor. If this is so from a world point of view, how very much more must it be a necessity for a Colony like Kenya, where the land is the only source from which is derived the wealth to maintain its trade, to put the producer on his feet.

185. The methods adopted to enable the farmer to produce at a profit are varied in the extreme. Thirly-three countries during the last few years have introduced some scheme to deal with the position. No matter what the actual scheme adopted may be, the result is that the State as a whole contributes to assist in carrying the farmer through the years of depression and this has become a universally accepted policy of all modern States, as they realize that the producing, spending farmer is an absolute necessity to their prosperity.

186. The compulsory co-operation of producers of a particular type of produce results in their becoming the only sellers and in their being given the right, with certain restrictions, to advance the internal price. It is the most popular method of assisting the farmer at the present time.

187. The principle underlying legislation of this kind is that all producers become compelled to share pro rata in the disadvantages of low-priced export business and that no section of producers should be permitted to retain to themselves for the whole of their marketed crop the advantages of the higher-priced internal market. The principle is the same no matter what may be the method of bringing it into effect, whether by a cess on maize gristed into meal or a cess on maize sold locally, the proceeds derived from the cess being paid to the exporter of maize, or the introduction of an

export quota system compelling each trader or producer to export a stated percentage of the maize he handles, or compulsory co-operation or pooling of all the maize grown in the Colony.

188. In the case of a commodity so widely produced as maize we realize that many practical difficulties will have to be overcome before effective steps can be taken to organize the marketing of maize on a national basis. Furthermore, the national effort necessary to achieve organized marketing of this kind demands State control and State responsibility. We realize that the organization of the marketing of maize grown in the Colony can only be undertaken if such organization is determined upon as a matter of State policy.

189. We advocate that policy. We regard it as essential in the present economic conditions of the world that a national effort should be made to safeguard the interests of the Kenya maize industry as a whole and to ensure, in so far as State action enables this to be done, an equitable distribution of the proceeds of sales on the local and overseas markets among all maize growers. State control is also necessary to safeguard the interests of local consumers. Maximum prices for local sales form an essential factor in the adoption of a policy of organized marketing of this kind.

190. Having considered the various methods of organized marketing already mentioned we are of opinion that a system of pooling is perhaps the method which could most easily be introduced into this Colony. Under this system the Central Board which would have to be set up would undertake to buy maize through its agents at certain named centres at a price fixed from time to time. Its agents and other merchants would buy from the producers at prices based on the knowledge of the price obtainable at those places. All sales to local consumers would be at prices subject to maxima fixed by the Central Board from time to time within the limits set by legislation and the Central Board would also determine the quantities of maize to be exported. Within the limits set by legislation, the price fixed for local sales would vary with the quantity exported and the price obtainable on export so as to maintain an average price fair to all maize growers.

191. We submit this recommendation for the organization of maize marketing under State control because we are satisfied that the economic importance of maize as the staple food of the Colony necessitates a national effort to safeguard the interests of the maize industry. We have not regarded it as incumbent upon us to work out the details of the organization required, which have already been examined by the Maize Inquiry Committee, or of the

legislation to give effect to it. Our recommendation is that the principle of organized marketing of maize should be accepted as a matter of Government policy so long as export prices remain at a low level. The detailed application of this policy is a matter upon which a body with specialized knowledge of the subject should advise and we recommend that the matter be again referred to the Maize Inquiry Committee, which, we understand, has not yet reported, or that another Committee be appointed for the purpose, on which producers', merchants' and consumers' interests are adequately represented.

192. The second proposal placed before us by the Kenya Marketing Farmers' Association is that there should be a reduction in the marketing costs, so that Kenya maize will be enabled to compete on the world's markets with its competitors, South Africa and Southern Rhodesia.

193. The present marketing costs of maize exported from Kenya are given below :—

		Per Ton
	<i>Sh. cts.</i>	
CARTAGE TO STATION —Average 50 cents per bag	
To RAILWAY—		<i>Sh. cts.</i>
Railage	15 00
Siding Charge	20
Wharfage	5 25
Port Storage	25
		<hr/> 20 70
COAST EXPENSES —		
Coast Agent, Grading, Re-sewing, Marking, Telegrams and Cables, etc.	1 55
<i>Spent in the Colony</i> per Ton Exported	27 75
Ocean Freight	19 25
Superintendence	40
London Charges, Commission, Interest, Insurance, Loss and Exchange at 4·64 per cent	4 33
		<hr/> 51 73
11 Bags at 62 cents	6 82
		<hr/> <i>Sh.</i> 58 55

194. This means that the actual cost of shelled grain from the farm to the London market is Sh. 58/55 per ton. Sh. 20 per quarter is the equivalent of Sh. 93/33 per ton. With maize at

Sh. 20 per quarter, therefore, the return to the grower is Sh. 34/78 per ton, or Sh. 3/16 per 200 lb. of shelled grain on the farm. If the overseas price is Sh. 19 per quarter the net return to the grower is Sh. 2/76 per 200 lb.

195. According to the evidence given to us, the corresponding costs to be met by producers in Southern Rhodesia and South Africa are considerably lower. Before dealing with the export market, however, we wish to mention internal marketing costs which are mainly a matter of railage from the producer to the consumer. These are given below with South Africa and Southern Rhodesia costs for comparison.

196. The following distances are taken for this purpose :—

From Kitale to Nairobi	298 miles
„ Kisumu to Nairobi	257 „
„ Nakuru to Nairobi	122 „
„ Nakuru to Mombasa	452 „

Miles	Kenya	South Africa	Rhodesia
	Sh. cts.	Sh. cts.	Sh. cts.
122	17 48	11 32	8 88
257	22 40	17 32	14 48
298	28 90	18 56	16 00
452	22 40	22 80	20 00

197. Export costs are given below with South African and Rhodesian costs for purposes of comparison :—

RAILAGE AND PORT CHARGES, SENDER'S STATION TO SHIP'S HOLD—						Sh. cts.
Kenya .. .. ..	..	..	..	..	..	20 65
Rhodesia .. .. ..	..	..	..	..	..	12 50
South Africa .. .. ..	..	..	..	..	..	15 00
OCEAN FREIGHT—						
Kenya .. .. ..	..	..	..	..	..	19 75
Rhodesia .. .. ..	..	..	..	..	..	17 50
South Africa .. .. ..	..	..	..	..	..	Sh. 15 to 17 00

198. It will be seen that the export costs are high, but the Kenya grower is faced with further disabilities. In South Africa and Rhodesia the Railway is acknowledged as a common carrier, and will carry maize at the convenience of the shipper. In Kenya export maize will only be carried at the convenience of the Railway

in stated quantities; the exporter is therefore forced to rail regardless of the suitability of the market, or of shipping facilities available. On arrival at the coast maize is charged a storage rate despite the fact that every possible freight space available has been used and that movement to the coast has been made at a time determined by the convenience of the Railway and not by the wishes of the exporter. A comparison of these storage rates with those of South Africa and Rhodesia appears below. The storage charges imposed in Kenya have cost the maize industry many thousands of pounds.

The figures are per ton of maize :—

Days	Kenya	South Africa	Rhodesia
	Sh. cts.	Sh. cts.	Sh. cts.
19	50	Free	Free
20		21	"
21			"
26	1 00	—	—
30	—	42	2 25
40	4 95	63	4 75
50	13 00	84	7 25

The Railway, as a common carrier, provides such good service in Rhodesia that for three years no storage charges have been incurred.

199. We trust that Your Excellency's Government will agree with us in considering that an essential industry of this kind should have the charges levied on it by the State Railways and Harbours adjusted so far as circumstances permit to the requirements of the industry having due regard to the charges falling upon competing industries in other countries and that steps may be taken to have the matter further examined from this point of view by the Inter-Colonial Railway Council and Harbour Advisory Board.

200. In addition to high marketing costs, restricted movement Finance and and absence of compulsory co-operation, the maize industry suffers security. from too high an interest charge, and want of security.

201. There is no need to refer to the losses incurred due to years of locust infestation, drought and low prices, as these are well known. The majority of the maize farmers have incurred charges additional to their original indebtedness in the form of accumulated interest at high rates, which they have been unable to pay during the recent bad years. In some cases this added charge has been subject to interest at 9 per cent, and in the majority at 8 per cent. These high rates compounded have added burdens

which in view of to-day's prices appear to the farmer too great for him to carry, and naturally have a depressing effect on his outlook, thus reducing his efficiency. Any scheme which can be introduced consolidating farmers' liabilities at possibly a lower level than the figure he is faced with to-day (giving him some form of security against foreclosure while he is paying his interest) and an interest charge below the general 8 per cent imposed to-day, will have a very real effect on the future of the maize industry, and do much to carry those who have been conducting a one-crop farm to turn over to a more diversified system. It must, however, be remembered that there are certain areas in the Colony where the maize crop must always predominate.

Secondary development.

202. There is a large import into the British Empire from America of flake corn, starch, corn flour, maize grits, glucose, and a variety of other products all made from maize, and there is no reason why a great proportion of those imports should not be manufactured in this Colony. We learn that the Kenya Farmers' Association hopes to start a factory which will supply most of these articles required in Eastern Africa, anticipating that it will develop into supplying overseas markets.

HIDES AND SKINS.

203. The export figures of hides and skins indicate a fall in price as serious as or even more serious than that shown for many other forms of agricultural produce. Practically the whole export is of native origin. The quantity of hides exported during 1933 shows a considerable increase over the previous years being nearly double the 1932 figure and nearly treble the 1931 figure. This increase in the quantity of hides exported must be attributed mainly to the incidence of drought upon the previously overstocked conditions obtaining in many pastoral native areas resulting in an exceptionally high rate of natural mortality. The evidence before us is that in some of these areas the mortality has been so high that over-stocking has now ceased to exist. This, however, does not apply generally and over-stocking still constitutes a serious menace in many native areas. We shall deal with this problem in a later section of our report.

Improvement in methods of preparation.

204. We have said enough, however, to indicate that the export of hides and skins does not so much represent the progress of an industry as the disposal by sale of a commodity which comes on to the market owing to the death of an animal, that death being more often due to old age or starvation than to slaughter for food. The supply of hides to the market must, therefore, in

present conditions, be regarded as a matter in which climatic conditions play a considerable part. Given good rains and ample pasture in a native stock area where abnormal deaths had recently been suffered from drought, we should expect to find a marked falling off in the quantity of hides available for export from that area as surplus to the needs of the native population. With a native stock population estimated at in the neighbourhood of six million head of cattle the quantity of hides for export each year, though it may vary up and down according to climatic conditions, must always be considerable and apart from any steps which may be taken to organize the hide export market on a better basis as regards regularity of supplies, much can be done to improve the quality and therefore the value of hides for export.

205. In certain areas much successful work has already been carried out with this end in view. A stimulus to the hide trade has been provided by propaganda advocating methods of better preparation. The hide and skin shade-drying scheme has proved a success and has been supported by the native producers wherever facilities and assistance are available in the reserves. Importance
of climatic
conditions.

206. The success of the method has been evidenced by the increase of the sale price to the native seller. The value of the hide has come to be judged by selection, replacing the bad system of "shellabella" or batch sale irrespective of quality. The following figures indicate the truth of this statement. In the Central Kavirondo Native Reserve there are twenty permanent drying sheds which have been erected under the supervision of the Agricultural Department and financially aided by Local Native Council funds.

207. The returns of exports of hides from this reserve in 1933 Exports from
were :— Central
Kavirondo
Reserve.

EXPORTS FROM CENTRAL KAVIROND RESERVE

	Frasilas	Price	Amount
In 1933—		Sh. cts.	£
Shade-dried ..	18,830	14 90	14,028
	3,500	15 51	2,714
Sun-dried ..	5,200	9 70	2,522
	352	5 43	100
	27,882	—	19,364
In 1932—			
Shade-dried ..	15,737	12 50	9,835
Sun-dried ..	3,808	7 00	1,333
	19,545	—	11,168

**North
Kavirondo
Reserve.**

208. Departmental effort has been carried on for ten years in the Central Kavirondo Reserve. In the North Kavirondo Reserve a determined effort has been made during the past three years and in 1933 twenty-two additional grass bandas were erected in that reserve, making a total of forty-nine. The intensive campaign and propaganda by demonstration and education coupled with better market prices, was responsible for the following progress :—

VALUE OF HIDES, NORTH KAVIRONDO NATIVE RESERVE

		1932	1933
		£	£
Sun-dried		3,235	3,225
Shade-dried		1,028	6,464
TOTAL .. £		4,263	9,689

**South
Kavirondo
Reserve.**

209. In the South Kavirondo Native Reserve there is no veterinary unit, but progress has been made under the supervision of a stock inspector and an agricultural officer as the following figures show :—

	Frasilas	Price	Amount
		Sh. cts.	£
1932—			
Shade-dried ..	3,934	12 50	2,459
Sun-dried ..	15,208	7 00	5,323
TOTAL ..	19,142	—	7,882
1933—			
Shade-dried ..	6,400	14 90	4,853
Sun-dried ..	9,300	9 70	4,510
TOTAL ..	15,700	—	9,363

It will be noted that there was a decrease in the number of hides produced during 1933 although there is an increase in value due to better preparation.

**Lumbwa
Reserve.**

210. In the Lumbwa Reserve a small commencement has been made by the erection of four bandas and there is an increase in the number of hides brought to these centres. In 1932 when the campaign started 576 hides were treated and sold for £133 and in 1933, 1,374 hides were sold for £415. The funds were supplied from the Local Native Council votes and the natives are clamouring for more assistance in this and other respects.

The estimated number of cattle in this reserve is approximately 125,000 head, and the possibilities of extension are, therefore, obvious.

211. With exception of the Coast Province, where slow progress is being made, complete apathy is shown by the natives in the remainder of the native reserves and in consequence a low-grade sun-dried article is offered on the market.

212. In the North and Central Kavirondo Native Reserves trained natives are in charge of the hide-drying bandas and do their own preparation, buying and selling.

213. In Machakos in 1933 the Local Native Council erected and staffed eight permanent drying sheds and ten more are in the course of erection.

214. The Hides and Skins Rules, 1931, were enforced in the northern area of the district where the drying sheds were erected. This legislation prohibits trading in any but shade-dried hides and skins. All native owners are at perfect liberty to sell shade-dried hides to whom they wish but, if they desire the Local Native Council to sell the hides for them, the hides are collected by a Local Native Council lorry from all the drying sheds at the end of each month and taken into Machakos, transport charges being debited to the owners.

215. In explaining the system to us the Chief Veterinary Officer informed us that the veterinary officer in charge advises all traders of the number of hides and skins for sale, asks for tenders and sells to the highest bidder at an advertised auction, thereby introducing fair trade competition and attracting larger buyers by bulking and grading the output.

216. This system was started in February, 1934, and owing to the enhanced price received is very popular amongst the natives as the following figures indicate :—

	February	March	April	May
Output No. Hides	129	439	1,133	1,266
Output No. Skins	29	140	461	514

217. The prices realized at Machakos in April are as follows :—

First Grade 30·7 per cent at Sh. 21 per frasila.

Second Grade, 26·5 per cent at Sh. 18/50 per frasila.

Third Grade, 39·9 per cent at Sh. 15/50 per frasila.

Fourth Grade, 2·9 per cent at Sh. 4/50 per frasila.

Goat Skins at 60 cents each.

Sheep Skins at 15 cents each.

With the exception of the fourth grade these prices are equal to the top figure offered on the market by the trade.

Masai Reserve.

218. Large quantities of sun-dried hides are exported from the Masai Reserve. They are exchanged by Indian merchants for quantities of posho, etc., and on "shellabella" buying the price at Kijabe is about Sh. 7 per frasila (36 lb.) based on average grading. The proportions of the different grades are as follows :—

First grade	...	...	5 per cent.
Second grade	...	...	15 „ „
Third grade	...	...	50 „ „
Fourth grade	...	...	30 „ „

219. In 1932, 272 tons, and in 1933, 582 tons of hides were consigned from Kijabe Station and taking an average of 150 hides to the ton, these figures represented in 1933 87,300 hides which were sold at the lowest market prices.

From Kajiado in 1932, 43 tons and in 1933, 100 tons were consigned from the Railway Station and it is stated the hides are of a better quality because of fewer branding marks.

No skins were exported from the Masai Reserve through the Railway system.

220. As compared with the Nyanza and Machakos Native Reserves the loss in economic value of hides and skins due to poor methods of preparation is enormous. We consider that immediate steps should be taken to institute a campaign in the Masai Reserve for the shade-drying of hides. We are aware that difficulties exist through the nomadic habits of the tribe, but we believe that they can be overcome.

221. We also conclude from the evidence given to us that steps can and should be taken by Government to place the marketing of hides in the Maṣai Reserve on a basis under stricter control in order to ensure that advantages accrue to the Masai from the better preparation of their hides, that fair prices are given and that sales are conducted for cash instead of under the system of barter which we are told is in general use in some of the trade centres.

Other areas.

222. Conditions similar to those in the Masai Reserve obtain also in the Northern Frontier District, Turkana District, and other areas. We extend the recommendations we have made regarding

the Masai Reserve to these other areas also. In our opinion, the progress that has been made in the Central Kavirondo, North Kavirondo, and Machakos Native Reserves can be accomplished elsewhere if facilities are provided for the purpose. The difference in price due to better preparation is marked; this is the measure of the wastage due to lack of instruction and shade-drying facilities. The latter can be installed at relatively low cost.

223. We recommend that Your Excellency should consider the Money for erection of permanent shade-drying bandas in poorer areas insertion in the annual Estimates of a one-line vote to be devoted to the erection of permanent shade-drying bandas and the provision of trained native supervisors to assist the poorer tribes where Local Native Council funds are not available for the purpose. Expenditure of this kind would add to the value of the Colony's annual exports a sum considerably in excess of the annual expenditure involved.

THE TEA INDUSTRY.

224. We do not consider it necessary to go into any details Co-operation affecting the tea industry. A Kenya Tea Growers' Association has been formed to assist in bringing about co-operation amongst growers. As a result a certain amount of co-operation has already been established and it is hoped that this will increase as time goes on. No attempt at compulsory co-operation is considered advisable.

225. As will be seen from the export figures already given, Growing importance of tea industry. this industry is playing an increasingly important part in the export trade of the Colony, tea to the value of £76,667 having been exported in 1933. In addition, 2,707 cwt. valued at £12,905 were exported to Uganda.

226. The principal disability under which the industry is suffering at the present time is inadequate means of communication between Kericho and the Railway. As it appears probable that no branch line will be constructed for a considerable time to come, we urge the importance of maintaining a sound all-weather road from the Railway into the Kericho tea districts.

SUGAR.

227. The statistics of exports of sugar given in Chapter II (D) show an average annual export of about 16,200 cwt. from 1928 to 1932 and a sharp increase in 1933 to an export of 82,644 cwt. The greater part of the export in the earlier years was to Tanganyika Territory.

Production.

228. Production of refined sugar in Kenya, as indicated by the Agricultural Census, has been as follows :—

1927-28	...	...	...	127,034	cwt.
1928-29	...	...	...	123,040	„
1929-30	...	...	...	133,120	„
1930-31	...	..	...	181,820	„
1931-32	...	...	...	104,700	„
1932-33	...	...	...	106,320	„
1933-34	...	...	...	112,980	„

229. Though production in Kenya remains below the level of 1930-31 there has been a considerable expansion in Uganda. Yearly production figures for that territory are not available but the figure for 1932-33 is given as 176,640 cwts. and some idea of the increase in recent years can be gathered from the fact that the acreage under cane increased from 6,312 acres in 1928 to 10,250 acres in 1932. A rapidly growing quantity of sugar has been transferred from Uganda to Kenya but no figures are available except for the year 1933 in which there was a net transfer from Uganda to Kenya of 64,428 cwt.

Exports.

230. Production has now exceeded current consumption in the three East African territories as is shown by the following statistics of exports :—

Year	From Kenya	From Uganda	Total	To Tanganyika	To Other Countries
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
1929..	15,645	4,374	20,019	19,607	412
1930..	15,680	6,863	22,543	21,683	860
1931..	21,709	45,077	66,786	65,854	932
1932..	16,046	41,049	57,095	55,084	2,011
1933..	82,644	144,229	226,873	61,054	165,819

231. The stage at which local production passed the point of satisfying the local demand was delayed by drought and locust infestation, but the sudden increase in the exportable surplus in 1933 has placed the industry in a very difficult position owing to the low prices ruling on export and the present artificial state of the world market. While some restriction of exports was achieved under the Chadbourne Scheme the effect was nullified by expansion of production in the chief importing countries and the present level of world prices is not such as to afford an economic outlet for East African sugar.

232. At the same time, such statistics as we have been able Consumption. to obtain tend to show that there has been a contraction in the consumption of sugar in Kenya. In the following figures the production statistics refer to the Agricultural Census year from the 1st March to the end of February, while the trade figures refer to calendar years. This difference in annual periods does not, however, appear to us to be of major importance and it should not in any way affect the conclusion derivable from statistics over a succession of years :—

	1928-9	1929-30	1930-1	1931-2	1932-3	1933-4
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Production, Kenya	123,040	133,120	181,820	104,700	106,320	112,980
Overseas Imports, Kenya ..	78,367	48,130	34,650	6,360	4,423	2,559
Transfer from Uganda to Kenya	?	?	?	?	?	67,097
	201,407	181,250	216,470	111,060	110,743	182,636
Exports, Kenya ..	11,941	15,645	15,683	21,709	16,046	82,644
Transfers from Kenya to Uganda ..	11,080	18,940	7,766	2,293	29	2,707
	23,021	34,585	23,449	24,002	16,075	85,351
Balance (apparent Consumption) ..	178,386	146,665	193,021	87,058	94,668	97,285

233. In view of the existence of a low export rail rate there is not likely to be any substantial export of Uganda sugar from stocks held in Kenya. It is unfortunate that no statistics of transfers from Uganda to Kenya are available for the years previous to 1933, but so far as such transfers took place in the earlier years the fall in consumption will have been greater than appears from the table.

234. It may be contended that the increased exports in 1933 were partly from stocks held over from previous years owing to the influx of Uganda sugar, but it must nevertheless be concluded, in our opinion, that a pronounced fall in local consumption has taken place.

235. Some fall in the wholesale price of sugar in Kenya has ^{Prices.} occurred. We are informed that the present wholesale price of No. 1 sugar in Nairobi is £24 per ton while the Kenya Tariff

Committee of 1929 reported that the average sale price of Miwani sugar in 1928 was £25-10-5. In contrast with the local wholesale price, however, the value of sugar for export to the United Kingdom is, we understand, in the neighbourhood of £7 per ton.

236. In the face of so marked a disparity in price on the London and the local market and of the fact that sales of sugar in London can only be carried out at a figure under the cost of production, it is natural to find that the attention of the industry should have been turned towards an attempt to safeguard producers' interests in the local market.

Representative organization in existence.

237. The affairs of the industry are in the hands of an organization which represents the greater part of the production in Kenya and Uganda. We understand that that organization has recently placed representations before Government with the above end in view, and that such representations have been under close consideration. In view of this, we have not thought it necessary to make any recommendations on a matter which has already received the attention of Government and in regard to which the organization has not made any representations to us. As in the case of the coffee and sisal industries we feel that the existence of a representative body whose function is to promote the interests of the sugar industry makes it unnecessary for us to duplicate consideration of questions relating solely to that industry.

WATTLE BARK AND EXTRACT.

Development.

238. The development of wattle bark and extract has shown gratifying progress, export of bark having risen from less than 2,000 tons in 1926 to nearly 12,000 tons in 1933. Conversion into extract has undergone some vicissitudes but has shown evidence of recovery in the last year. The entry of the Natal Tanning Extract Company and the establishment of a new extract factory at Thika should put this trade on a sound foundation and go far to reduce the disadvantage occasioned by falling prices of bark.

Value in Native Reserves.

239. Production of wattle is mainly in the hands of native growers. Its importance rests not entirely on its value as an export commodity; its value is considerable as a supply of firewood, as a supply of material for building and for various agricultural purposes, as a means of preventing soil erosion and of rejuvenating soil which has become infertile from continuous cropping. It has provided a means of compensating for the progressive destruction of natural forest which is an almost traditional practice with some native tribes.

240. We are of opinion that the value of wattle cultivation on European holdings has not received the attention it appears to deserve. It seems not unlikely that in the moister areas, particularly those given over to dairying and mixed farming, wattle would serve as material for a cheap and effective form of live fence and windbreak besides yielding a supply of light timber for various farm purposes and of bark for sale. It may assist in the solution of the paddocking problem.

241. Wattle is grown mainly in the Kikuyu Reserve and we are informed that considerable expansion is yet possible in this reserve. We urge that attention should be directed to expansion in other areas where the climate is suitable. In the South Lumbwa Reserve, for instance, we consider that there are great possibilities of expansion. We are informed that administrative officers are attempting to encourage planting but are handicapped by the lack of agricultural officers to give advice and assist in the propaganda work. Other reserves suitable for similar expansion in wattle growing are the Nandi, Embu and Meru Reserves and portions of the Teita Hills.

GOLD MINING.

242. Gold was discovered more than thirty years ago in the South Kavirondo and Kisii Districts but the occurrence did not appear to be regular enough to justify extensive investigation. Some development took place shortly after the war and it will be seen from the export figures given in Chapter II (D) that for the years 1928 to 1930 there was an average annual export of 1,645 oz. troy valued at £7,088. Then, towards the end of 1931 came the discovery of the Kakamega Goldfield, followed by alluvial operations of great promise. Widespread interest was aroused. Large numbers of claims were pegged and alluvial working gave a considerable output of gold. By the middle of March, 1932, there were about 600 prospectors in the field and many prospectors who had originally been attracted by the immediate return from small alluvial propositions began to turn their attention to reef prospecting.

243. Sir Albert Kitson came to the Colony at the invitation of the Government in May, 1932, and made an intensive examination of the Kakamega field. His report, published in November, attracted world-wide attention. His view of the potentialities of the field was optimistic and capital from outside as well as from within the Colony at once became available for development. The number of Europeans in the field soon reached almost a thousand and included prospectors from outside the Colony who were experienced miners and representatives of large mining interests.

244. The remainder of the known auriferous area in the Nyanza Province was closed to prospecting while an application by the Tanganyika Concessions, Ltd., for an exclusive prospecting licence over the area of some 6,000 square miles was under consideration. This application formed the subject of a special report by Sir Albert Kitson and his advice, which was accepted by the Government, led to two areas aggregating 1,490 square miles being thrown open to general prospecting while three other areas aggregating 4,410 square miles were reserved for exploitation under exclusive prospecting licence.

Further discoveries.

245. One of the areas thrown open to general prospecting situated to the west of the Kakamega field, was opened to general prospecting in June, 1933, and many interesting and valuable discoveries have been made. One part of this area, covering one square mile, situated a few miles south of the Yala River was reserved from general prospecting owing to the fact that preliminary sampling from a large reef in that area indicated that the prospect of development was beyond the resources of the individual prospector. An exclusive prospecting licence has been issued after applications had been considered to a company whose plan of development is now in operation.

Rapid development.

246. With so much of the auriferous area still only in the early prospecting stage it is clearly premature to frame any estimate as to the potentialities of the Nyanza goldfields, but the discoveries already made have been of enormous service to the Colony during the past three years, and the operations now in progress in the established mines are but the prelude to further developments of large magnitude. A mill to handle seventy tons of ore per day was recently installed by Risks, Ltd. and the Kimingini Gold Mining Co., Ltd., are actively preparing their mine for stoping. The registered capital of companies at present operating at Kakamega aggregates nearly £2,500,000, the largest company being Kentan with a registered capital of £1,000,000. It is clear that the gold mining industry will be responsible for the importation of capital amounting to many hundreds of thousands of pounds and that, though it is impossible at present to assess the potential output, the mining industry of the Colony will provide a sum of real significance in the Colony's exports in the comparatively near future.

Importance of the gold mining industry to the Colony.

247. The discovery of the Kakamega gold field came at a most opportune time. The gold fields have provided employment and opened out a field for private endeavour at a period when agricultural conditions were unfavourable and the overseas prices of agricultural produce low. During 1933 the mining industry gave

employment to a monthly average of between 400 and 500 Europeans and between 9,000 and 10,000 non-Europeans, the total wages paid being between £110,000 and £120,000. These figures include prospecting as well as mining proper but exclude registered holders working their own claims. We understand that the total expenditure in the Kakamega area in 1933 has been estimated by a mining association at £300,000.

248. In the development of an industry of such great present and prospective importance to the Colony we consider that too much attention cannot be paid to the special and general needs of the industry and its component parts and we therefore welcome the decision reached during the course of this year for the formation of a separate Mines Department under a Commissioner of Mines. The special needs of the industry can, we are sure, be safely left in the hands of the Commissioner. But for its general requirements we feel, as we feel in the case of certain other industries, that there is need of a co-ordinating body to bring on to a common plane of effort all the activities of Government associated with assistance to the industry. The Standing Board of Economic Development, whose establishment we recommend in a later section of our report, is the body which, in our opinion will best be suited to achieve this co-ordination. The interests of the mining industry do not solely demand a just and understanding attitude on the part of the Commissioner and Wardens of Mines; they also require considered plans of transport development, the adoption of a policy of planting suitable timber in areas adjacent to the mines and other facilities which can readily be viewed comprehensively by a central board but which do not respond so well to consideration separately as they arise by the various Departments concerned. Apart from this, mining development provides opportunities for acquiring much additional information regarding the areas, as by aerial surveys, information of which full use can be made by the Administrative, Medical, Agricultural and other Departments operating in those districts if adequate co-ordination of effort is maintained.

249. We would quote one instance in which co-ordination of effort seems to us essential. With the development of mining proper at Kakamega there arises a demand for improved communications with that mining area to carry a considerable volume of regular traffic. How does the development of road transport facilities to Kakamega fit in with the general requirements of the gold-bearing area and the existing railway and road system? Kisumu is the nearest main centre, but the branch railway from Kisumu to Yala and Butere provides shorter access to the railway system and in respect of that branch railway the Colony paid no

less a sum than £11,439 in 1933, as a reimbursement for loan charges on the cost of construction, the branch line having operated at a loss during the year. We do not wish to prejudge an issue which can only be settled by examination on the spot, but it is clearly important that the annual sums now being paid by the Colony in respect of this branch line should be kept prominently in mind in considering the manner in which the road transport system to serve the gold areas north of Kisumu is to be developed.

250. We have received no representations from mining companies or mining associations and have been asked to consider no proposals relating to the mining industry. We attribute this largely to the fact that the industry is in close touch with the Government through the Commissioner. We therefore make no specific recommendations beyond urging the importance of co-ordinated action as between the Government Departments concerned and between the Government and the Railway Administration and citing this valuable industry as one which presents an instance of the desirability of ensuring co-ordination of effort by means of a Standing Board of Economic Development.

OIL SEEDS.

251. The production of simsim and groundnuts is in the hands of native producers and is localized mainly in the Nyanza Province. A certain quantity of the seed is crushed locally and a portion of the oil is exported.

Simsim.

252. Exports of simsim seed declined from over 72,000 cwts. in 1926 to a low point of less than 10,000 cwt. in 1931, but have since recovered to 65,000 cwt. in 1933. Exports of simsim oil have shown no definite trend up or down over the same period.

Groundnuts.

253. Exports of groundnuts have never exceeded 38,000 cwt., and have fallen during the last few years to below 10,000 cwt., exports of oil being small.

254. We understand that difficulties have been experienced in the Coast area on account of disease, while expansion of oil seed production rests largely upon the opening up of new areas in which preliminary investigation is necessary.

Potential development.

255. We believe that considerable areas in the Colony are eminently suitable for the production of oil seeds for export, and, even at present prices, the price obtainable compares favourably with that of some other bulk products. The situation of the grower is complicated, however, by the fact that railage and ocean freight charges are at a much higher level. The export rail rate on simsim,

for instance, is Sh. 35 per ton and the ocean freight rate to European ports Sh. 37/50 per ton. These rates were based largely on the principle of charging what the traffic would bear, and owing to the unorganized state of the industry representations are not readily made when changes occur in the capacity to bear the existing charges.

256. This is one of those cases in which there is need for a central body to watch over the progress of development and to maintain a close liaison with the Railway authorities and shipping interests. In the absence of such a body there is a danger that much damage will be done before the facts are fully appreciated by the authorities concerned. Though reductions in transport charges may be difficult to effect in the present stringent circumstances it is more than possible that failure to effect adjustments may prevent the increase, or actually reduce the volume, of paying traffic and involve the transport authorities in greater losses than reductions in rates would cause.

THE DAIRYING INDUSTRY.

257. We regard the dairying industry as potentially a very ^{Potentialities} important one in the export market. For the past few years there ^{of the} industry. has been a rapid expansion in dairying in Kenya and it is reasonable to assume that but for drought conditions, locusts and low prices, this expansion would have been accelerated. The industry is at present suffering adversely from very poor prices overseas, and it is upon prices overseas that development prospects of the industry depend. The capacity of the Colony to produce milk, butter, cheese, ghee and pig products is considerable. While the local market in this line can absorb only limited quantities, the export price of butter has recently been such as to leave only a small return to the farmer for butter fat manufactured into butter for export.

258. The information we have been able to obtain does not ^{Cost of} production. cover the whole field of the economics of the dairy farming industry. The industry is largely represented on the manufacturing side by the creameries, which are concerned with manufacture and sale of the butter fat received from farmers. Such information as we obtained referred mainly to prices and costs of manufacture and of transport.

259. During the past two or three years there has been little ^{Cost of} manufacture. change in the costs of manufacture taken over a year. The reason for this is that on account of poor seasonal conditions there has been little change in the output, and economies have been offset by the necessity for building fresh factories to cope with normal expan-

sion, and by the excessive variation in supplies at different seasons, due to abnormal weather conditions. The Kenya Co-operative Creamery Company is at present equipped to cope with at least 50 per cent more than the supplies at present forthcoming, taken on an annual basis. Inclusive of all overheads, interest, depreciation, packing charges, etc., the cost of converting 1 lb. of butterfat into butter has been approximately 28 cents per lb. for the past two financial years of the Company. Figures taken over one month do not give any guide by comparison, as the cost of manufacture depends mainly on volume of supplies. As an illustration, in July, 1932, with a production of 112,896 lb. butterfat, the cost of manufacture was 20.85 cents per lb. of butterfat, whereas in May, 1933, with a production of 40,922 lb. of butterfat, and in spite of salary cuts, reduction in interest charges and other economies, it rose to 46.16 cents per lb. of butterfat. It is therefore evident that it is essential to maintain a fair volume of supplies at all factories, if the cost of manufacture is to be kept at a reasonable level.

260. We are informed that the average cost of manufacture for 1933 at all factories was 22.5 cents per lb. of butterfat and that if all the factories were working at full capacity the cost might fall to about 18 cents per lb. but is unlikely to fall below that figure. We are also informed that while it is difficult to compare costs of production in Kenya with those in other countries owing to the different methods employed in expressing costs, it is believed that the local factory costs are less than those obtaining in South Africa and compare not unfavourably with costs in New Zealand.

Marketing.

261. The supply position as regards butter is indicated by the following statistics in which farm and creamery production for the Agricultural Census years March 1st to February 28th are compared with the exports for calendar years.

	Creamery Production	Farm Production	Total Supplies	Exports	Transfers to Uganda	Total Exports
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
1930-1	1,207,295	312,694	1,519,989	873,448	96,656	970,104
1931-2	1,069,043	285,320	1,354,363	708,512	81,312	789,824
1932-3	1,428,471	350,405	1,778,876	1,035,104	20,832	1,055,936
1933-4	1,235,019	307,349	1,542,368	841,568	22,624	864,192

262. From these figures the local consumption of butter would appear to have been as follows :—

1930-1..	..	..	..549,885 lb.
1931-2..	..	..	..564,539 ..
1932-3..	..	..	..722,940 ..
1933-4..	..	..	..678,176 ..

263. The average sale prices realized in London have been Prices. approximately :—

1932 .. .. ..	..	..	..	Sh. 82 per cwt.
1933 .. .. ..	..	..	..	Sh. 65 "
1934 (first six months)	..	..	..	Sh. 67 "

We are informed that Kenya butter has established a good reputation in London and sells at prices approximately equal to New Zealand first grade.

264. The difference between the gross nominal sale price and the net realization f.o.r. station nearest the factory varies from 20 cents to about 22 cents in accordance with the price at which the butter is sold. This means that the above prices are equivalent to values f.o.r. as shown below. The average costs of manufacture and overrun are also given so as to show the return left to the farmer per lb. of butterfat supplied :—

	London Price	Marketing Costs	f.o.r. Value	Value per lb. Butterfat	Manufacturing Cost per lb. Butterfat	Return to Producer
1932 ..	Cents 73	Cents (say) 22	Cents 51	Cents 60	Cents (say) 28	Cents 32
1933 ..	58	20	38	45	28	17
1934 .. (First six months)	60	20	40	47	22	25

265. These particulars indicate the serious position created by the low prices which have ruled on the London market, and the importance to the industry of the local market. The degree of support derived from the local market and from sales to neighbouring territories can be readily realized from the fact that the average pay-out made by the Kenya Co-operative Creamery Ltd. for butterfat supplied by farmers was 64.9 cents per lb. in 1933 and 72.2 cents in 1932.

266. With regard to marketing overseas, Kenya is placed at a External markets. disadvantage on the London market owing to the long haulage to the Coast. This is a disadvantage which cannot be overcome. A further disadvantage is the ocean freight rate which for Kenya butter is 1d. per lb., as compared with the New Zealand rate of 5d. The difference is partly accounted for by the fact that whereas New Zealand sends shiploads, Kenya is at present only able to send rather irregular shipments which often only partly fill a cold store. Nevertheless the Kenya rate is high.

India.

267. India should be a valuable market for Kenya butter, but owing to the shipping facilities available it is only possible in practice to ship to the neighbourhood of Bombay and it is in that neighbourhood that the Government dairies of India are principally concentrated. Exports of dairy produce to India must therefore consist mainly of cheese and possibly a certain amount of tinned butter. The expenses and risks of making cheese on a large scale are considerable.

**Portuguese
East Africa.**

268. A useful trade has been worked up with Lourenco Marques which recently amounted to about ten tons per month at a price which on average is about 15 cents per lb. better than the London equivalent. Unfortunately, the recent drought has seriously interfered with shipments to this market and may make it difficult to regain it. Coupled with this is the fact that South Africa has recently entered into a trade agreement with Portuguese East Africa which will ensure South African exporters a preferential tariff of some 15 per cent as against Kenya. So substantial a preference can hardly be overcome.

**Sudan and
Belgian Congo.**

269. A satisfactory trade has been worked up with Port Sudan and progress is being made with the Belgian Congo market which shows signs of expansion.

270. Generally speaking it is practically impossible to compete with cold storage cargo where transhipment is involved in the Near East. The difficulty of competing is accentuated by the Australian and New Zealand exchange position.

**Compulsory
co-operation.**

271. Steps are now being taken to increase the degree of co-operation in this industry. We understand that the majority of European dairy farmers would prefer some measure of compulsory co-operation for marketing purposes to the existing incidence of the butter levy. The principal reasons given to us for compulsory co-operation are to prevent the local price sinking to the export equivalent and to ensure a reasonable turnover at the co-operative factories so as to reduce costs of manufacture.

**Production by
natives.**

272. The production of dairy products in native reserves takes for the most part the form of ghee or clarified butter, and mainly emanates from the Nyanza Province. The Department of Agriculture has established small ghee stations from Local Native Council funds. In Central Kavirondo alone there are seventy ghee dairies.

273. According to the Agricultural Department records there are one and one quarter million cattle in the Nyanza Province one-third of these are milk cows, of which 40 per cent are in milk a

any time during the year. The surplus milk produced by these cows after satisfying home requirements provides an important potential source of wealth on the export market which, over a period of years, would amount to a very considerable sum under conditions favourable to development.

274. The Nandi, Lumbwa, Kikuyu and Akamba Reserves, and the Western Masai districts which are also potentially large sources of dairy produce, are producing little or none at present.

275. In the past, production policy has been directed entirely towards improving the quantity and quality of the ghee outturn. There is still some scope on the local market, as appreciable quantities are imported from Mwanza in the grass seasons. Investigations are now in progress as to the possibility of export of ghee to India, Ceylon and the United Kingdom. Trial consignments to London have elicited the view that if a high and uniform quality can be maintained and regular shipments can be assured an extensive trade might be developed for certain manufacturing purposes.

276. The first stage in development of dairy production in a native area is appropriately the manufacture of ghee. There are some areas so remote from creamery and rail facilities that ghee production represents the only possibility. In certain areas, however, progress has been made towards the supply of cream to creameries for manufacture into butter. There is every reason to believe that when initial difficulties have been overcome this departure is one of far-reaching import. With this end in view, steps have been taken for the erection of a creamery at Eldoret to deal jointly with supplies from native reserves and European-owned farms in that part of the Colony.

277. Apart from the matter of additional creameries to which we allude below, the suggestions we have received for the advancement of the dairy industry in native reserves are for increases in field staff in certain districts, the establishment of one or more inexpensive refineries for the purpose of standardization of ghee produced under widely differing conditions and the erection of pasteurization plants to pasteurize cream supplies produced long distances from creameries.

Dairy industry
in native
reserves.

278. The two last-mentioned suggestions were not made in Field staff. sufficient detail for examination. As regards increases in field staff, it was suggested that a complete veterinary unit consisting of a veterinary officer and a stock inspector be provided for the Kikuyu Reserve, which is at present without any veterinary staff, a similar unit for South Kavirondo and one for Narok-Trans. Mara.

279. A complete veterinary unit involves a recurrent cost of about £1,600 per annum. In support of such expenditure the Deputy Director (Animal Industry) produced the following figures of out-put obtained through the influence of a unit in North Kavirondo.

	1931		1932		1933	
	Amount	Value	Amount	Value	Amount	Value
Milk (gallons) ..	44,500	£ —	44,294	£ —	120,364	£ —
Ghee (frasilas) ..	576	770	574	565	968	847
Cream (lb.) ..	—	—	8,207	98	39,318	491
TOTAL VALUE..£	—	770	—	663	—	1,338

Veterinary duties and a variety of other activities are, of course, carried on by the same unit, and progress up to a point is likely to be cumulative.

280. We are not satisfied that the appointment of additional veterinary officers for this work is necessary. The cost of a veterinary officer is comparatively high and he is not trained in animal husbandry as such. His main purpose is prevention and curing of disease. In some respects animal husbandry work falls more within the sphere of an agricultural officer, whose training includes management of cattle for economic purposes. In our opinion the first steps to be taken towards the improvement of dairying development in Native Reserves should depend upon the appointment of additional agricultural officers assisted by animal husbandry assistants rather than of veterinary officers, the former being adequate to the immediate purpose and being able to help the development of dairying at the same time as they promote the agricultural interests of the reserves to which they are posted.

Future policy.

281. It is necessary to face the difficult problem created by expansion of the dairy industry on European farms and in native reserves. We have drawn attention to the extent to which the industry depends upon the local market and to the low values of butter for export. As production increases the possibility of deriving support from the local market must of necessity become proportionately less. But it does not seem feasible to allow the field of native production to lie fallow for this reason. Nor does it seem that this would achieve the object in view. a

282. The movement which has started cannot be stopped, and the only possible course seems to be to take due advantage of the economies which greater volume of production brings in its train. It has been pointed out that the costs of manufacture of butter at present are somewhat swollen by the shortage in relation to the capacity of the factories of supplies of butterfat during the dry seasons. In volume and regularity of export lies also the most likely means of securing reductions in ocean freight rates and marketing costs. The chief part of the cost of production on farms consists of items which may be expected to fall as the output increases. In the meantime the process of adjustment can be facilitated by measures such as the butter levy or other means to the same end.

283. The question of providing an outlet for cream produced by natives and the extension of production by Europeans in new areas results in a need for additional creameries. There are important advantages in ensuring that all such development should be brought within the operation of a single organization. In South Africa considerable difficulties have been encountered by uneconomic competition between independent concerns, and the value of a single exporting organization with uniform standards of quality and bulk-ing of exports needs no emphasis.

284. There is, however, one difficulty which may arise where the industry is in the hands of one company, and that is the question of finance. It, therefore, becomes expedient to examine the financial condition of the Kenya Co-operative Creamery, and the difficulties which may arise in the erection by that company of further factories. It is not necessary here to go into the whole history leading up to the amalgamation of the Lumbwa Co-operative Society and the Nanyuki Co-operative Creamery Limited, with the Kenya Co-operative Creamery Limited. Suffice it to say that after protracted negotiations the amalgamation was effected in a manner which though possibly unavoidable at the time, has since proved to be unfortunate from a financial point of view.

285. Broadly speaking the position now is that the company is mainly financed by debentures which represent a fixed charge on the Lumbwa, Naivasha and Nanyuki Creameries and a floating charge over all the other assets of the company past, present and future. These debentures amount to £22,000 and some of them carry high rates of interest.

286. These debenture issues very seriously impair the ability of the company to raise loans for fresh undertakings, since they inevitably limit the security which the company can offer on a new

**Proposal for
financing
Co-operative
Creameries.**

factory being erected, and even this can only be done with the consent of 75 per cent of all the debenture holders. It might be supposed that it would be only necessary for a strongly established company such as the Kenya Co-operative Creamery to raise on loan a small proportion of the cost of any new factory which it is considered necessary to erect. Such a supposition, however, fails to take into account the history of the industry in Kenya up to date.

287. The fact is that co-operative companies have all along had to compete to a serious extent with private dairy farmers, who have remained outside the co-operative organization and this competition has not been on even ground. The reason for this is that the Kenya Co-operative Creamery Limited is, by virtue of its organization, the only manufacturer which is in a position to export dairy produce on any large scale, and consequently the whole of the burden of export has fallen on this company. It is true that in the course of the last year or two this position has been rectified to some extent by the operation of the Butter Levy Ordinance, but it is still probably true to say that farmers remaining outside the co-operative creamery organization are in a more favourable position than members due to the efforts of the organization itself. Export parity is considerably below world prices, and but for the maintenance of a higher local price it is probable that the industry could not carry on.

288. The Government and all sections of the community have for some time realized the importance of dairy farming in the economic structure of the Colony, and cereal farmers have been constantly urged to turn their attention to mixed farming, in view of the value of a monthly cheque as against an uncertain yearly one. There is little doubt that the recent expansion in the dairy industry will continue, and it is no exaggeration to say that given fair seasons and the absence of locust invasion, the expansion will accelerate to a very considerable degree.

289. The Kenya Co-operative Creamery Limited urges that there is a strong case for Government-assisted finance to enable the company to pay off its existing debenture issues and face the future free to raise capital on further assets which may be added from time to time. Alternatively it urges the desirability from the point of view of all sections of the community of Government assisted finance being forthcoming to assist in the erection of factories without undue insistence on theoretical security values and the complicated consequences which must ensue from a rigid adherence to such conditions as, for example, the Land and Agricultural Bank is now authorized to insist upon when lending money to co-operative concerns.

290. The company points out that the real security in making such loans is the dairy industry or at least the whole output of the suppliers who send their output to its factories. The difference between the co-operative manufacturing concern and a trading concern in this connection cannot be over-emphasized. The Kenya Co-operative Creamery does not trade. It pays out to its suppliers such sums of money as are left over from the sale of its produce after paying its manufacturing costs and any other commitments which may be involved. The company represents that the strength of this position cannot be over-emphasized and that it illustrates the fallacy of insisting on rigid theoretical security for any loans for considerations which are in the national interest.

291. The points upon which we are required to express an Conclusion opinion are therefore associated with co-operation in the industry ^{and recommendation.} itself, concentration of the duty of marketing Kenya butter in the hands of one organization, and finance.

292. Efforts to strengthen co-operation among dairy farmers ^{Co-operation.} have already been made with legislative authority by means of the Butter Levy Ordinance and we understand that the Board of Agriculture has recently been examining in detail proposals for making co-operation compulsory. We believe that the future of the industry depends upon co-operation among all producers of butter-fat and we therefore agree in principle with the enactment of legislation making such co-operation compulsory. We have not examined the practical details of such a measure in view of the fact that the Board of Agriculture is doing so.

293. We believe that experience in other countries has amply ^{Control Board.} demonstrated the importance of regulating the establishment of creameries. The butter industry as a whole can gain nothing by and may lose much from the existence of redundant creameries, a feature which may readily ensue if there is a lack of control. We are not satisfied, however, that full control should necessarily vest in the hands of the present company. That company has done work of immense importance to the dairying industry in the Colony but the essence of monopoly control in this instance is that control should vest in a completely representative organization and with the expansion in dairying to which we look forward in both the settled and the native areas of the Colony we consider that the magnitude of the issues demands that the Board of Control should be a Board set up by the Government itself. We recommend that the establishment of a Control Board for this purpose should be examined by the Board of Agriculture who should also be asked to indicate the powers to be given to such Board for the proper regulation of the Colony's dairying industry as a whole.

Finance.

294. The question of finance depends in our view entirely upon the measures taken to establish control in the industry. We therefore regard it as premature for us to make any recommendation on this matter but suggest that the Board of Agriculture should inquire further into it in connection with the wider issue of the establishment of the Control Board.

WHEAT.**Production.**

295. The acreage harvested, yield, yield per acre and average price of wheat grown in Kenya during the past six years have been as follows :—

Year	Acreage Harvested	Yield Bags of 200 lb.	Yield per Acre	Average Price per Bag
	<i>Acres</i>	<i>Bags</i>	<i>Sh. cts.</i>	
1927-8	75,102	173,958	2.32	18 54
1928-9	82,951	228,141	2.75	15 40
1929-30	63,217	293,468	4.64	13 19
1930-1	68,815	194,337	2.82	9 27
1931-2	43,168	86,862	2.01	13 73
1932-3	30,114	63,498	2.11	15 77
1933-4	35,001	145,581	4.16	—

296. Damage by locusts and the incidence of disease caused a serious decline in the acreage of wheat reaped in 1931-32 and 1932-33 and the production during those years was below the requirements for domestic consumption in East Africa. Whereas there had been a considerable export of wheat in preceding years it was necessary to import some 5,000 tons in 1932 and nearly 8,000 tons in 1933.

297. Compulsory co-operation among wheat growers was introduced by the Sale of Wheat Ordinance, 1930. All wheat grown in the Colony comes under the control of the Wheat Advisory Board who lay down the price of wheat of various grades at the grower's station.

Control measures.

298. The price of wheat on the world's markets has been extremely low in recent years and the great fall in prices coupled with locust damage and wheat diseases had placed the industry in grave danger. The introduction of the Sale of Wheat Ordinance undoubtedly saved the wheat and milling industries of the Colony. With the low steamer freight from India to Kilindini (much lower than the railage from Nairobi to Mombasa) and assisted by the low price of wheat in India, the millers there are able to land flour at Mombasa at a very low price, despite the duty at present imposed. In order to compete with this overseas flour the local miller is given a rebate of Sh. 5/50 per bag on all wheat

used in supplying flour to the Mombasa market, and, in order to maintain sales in Tanganyika the rebate paid is as high as Sh. 8/50 per bag of wheat. This means that the actual price paid to the growers' pool is only Sh. 11 per bag for wheat used in this trade.

299. The basic customs duty on flour and wheat is Sh. 3 per 100 lb. and in addition a suspended duty of Sh. 3 per 100 lb. is levied. Kenya applies the whole of the suspended duty, but Tanganyika and Uganda apply half of the suspended duty only, or Sh. 1/50 per 100 lb. making the total duty into those territories Sh. 9 per bag of 200 lb., whereas Kenya imposes Sh. 12 per 200 lb. Protective duties.

300. A measure of protection in up-country markets is also afforded by rail rates. Imported flour railed to Nairobi pays a rate of Sh. 8/15 per bag, while the country produce rate applied in the reverse direction is only Sh. 2/80.

301. The Kenya Farmers' Association, on behalf of the wheat industry, presses for an increase in the protective duties. The Association points out that if there were no tariff no wheat would be grown in Kenya as the world price to-day is far below the cost of production, though before the slump in world prices, Kenya exported wheat at a price which showed a profit to the grower. But the present position is that every wheat-growing country is desperately searching for markets for the exportable surplus, some subsidize exports by taxes levied on wheat sold internally, some have alternatively or in addition been able to place wheat on the market at lower sterling cost owing to depreciation of currency. The search for new markets has grown more intense by the adoption in many countries of permit systems virtually prohibiting importations. Export quotas to continental ports have recently come into operation and this will increase the stimulus to find new markets elsewhere. Australia will have to find new markets at almost any price for some of the exportable surplus wheat. The dangers to the local wheat industry of competition from outside are therefore potentially considerable.

302. The importation of flour into Kenya in recent years has been as follows :— Importations of flour.

		Cwt.	£
1928	..	49,825	44,119
1929	..	51,666	43,945
1930	..	49,887	37,998
1931	..	52,286	27,967
1932	..	26,393	14,679
1933	..	16,891	8,955

It will be seen that imports have decreased rapidly in volume since 1931, when the suspended duty was raised from Sh. 1/50 to Sh. 3 per 100 lb.

303. Production in 1933-34 has been large enough to meet local requirements and to give a small carry-over. If production again increases the surplus will have to be exported at a realization of about Sh. 7 per bag if prices have not further improved.

304. These sales on the export market at low prices have a serious effect on the return to the grower. So long as production can be restricted to East African consumption the present duties combined with the limitation of internal competition by the Sale of Wheat Ordinance suffice to ensure an adequate return to the grower, but the seasonal variations in yields are so great that this cannot be accomplished. Storage of seasonal surpluses cannot be undertaken economically because of the ravages of weevils.

305. The question we are asked to consider is whether the duties at present imposed are adequate to the purpose.

There is little doubt that the duties imposed in Kenya and Uganda, combined with rail rates, afford ample protection to the industry in up-country markets. Since sales of local flour have largely displaced imported flour since 1931, when the suspended duty in Kenya was increased from Sh. 1/50 to Sh. 3 per 100 lb., and since at the same time sales in Tanganyika have increased from 28,000 cwt. in 1931 to 39,000 cwt. in 1933 there is a presumption that the existing scale of protection is adequate also for coastal markets. We observe that the total duty at present levied in Kenya amounts to Sh. 6 per 100 lb. while the price of straight-run flour in London, ex-mill, is Sh. 8/50 per 100 lb. Customs duty is thus equivalent to a large proportion of the world value. It is of interest to observe the course of flour consumption in Kenya, since in matter of price control there comes a point when the reaction of consumers, conditioned by their purchasing power, places a limit upon the degree of control which can be maintained.

Consumption.

306. Consumption of wheat meal and flour in Kenya over the past six years is indicated by the following statistics, in which millings during the Agricultural Census years March to February are compared with trade movements by calendar years.

Year	Flour Milled	Imports of Flour	Exports of Flour	Transfers to Uganda	Apparent Consumption
1928-9	93,441	30,915	9,922	12,593	101,841
1929-30	110,892	32,782	17,927	14,222	111,525
1930-1	107,436	30,385	21,581	14,670	101,570
1931-2	84,819	32,171	15,726	11,853	89,411
1932-3	92,381	16,852	16,924	14,747	77,562
1933-4	97,273	10,982	23,006	13,930	71,319

There has been a progressive decrease in consumption during the past four years.

307. We do not consider that a case has been made out for an Conclusion increase in the import duties on wheat and flour. The object of regarding proposal to the suggestion to increase the duties is to secure the local market for increase the local industry and the reason underlying the suggestion that the import duties. duty be increased is a doubt whether the present rate of duty, high as it is, is adequate to protect the local industry against unfair competition by way of dumping.

308. The only remedy against dumping which is absolutely effective is prohibition of importation. We should prefer the adoption of power to prohibit imports except under licence to any attempt to meet the danger of dumping by an increase in the duties.

309. But we suggest that, in the present circumstances of the world wheat market, the immediate objective of the local wheat industry should be to develop the local demand. The figures already given show a somewhat marked contraction in the quantity consumed in Kenya during the past four years. This we believe to have been due to a decline in the Indian population and to a decrease in consumption by natives. We are of the opinion that the local wheat industry should do everything within its power to encourage the consumption of wheat by the native inhabitants of the Colony and that this should receive the active support of the Administration.

310. It is only in this way that we see any prospects of profitable expansion at present world prices and in the present condition of the world's markets. If local consumption remains at its present comparatively low level, the loss on export of the quantity not required for local use will assume greater proportions with any increase in production, with the result that a marked expansion in output will tend to reduce the return to the grower to a figure leaving less and less margin over cost:

311. But if, by the stimulation of local demand, a fair price can be assured for a greater quantity of the wheat produced, the importance of the export market will tend to diminish and expansion will be possible in reliance on local sales. This line of development appears to us to require a reduction in the local price of local flour.

312. A fall in the local price would undoubtedly stimulate local consumption and an increase in local consumption, even at lower local prices, would increase the gross return on an expansion of output to a greater extent than an export of the increased surplus. Local prices.

313. We believe the immediate future of the wheat industry in Kenya to lie in the direction we have indicated and that if this policy is pursued the extent of the local demand will ensure for the

grower a profitable return at prices lower than present prices and an industry safe from competition from overseas without any necessity for prohibiting imports.

COTTON.

Production.

314. The development of cotton growing in Kenya is illustrated by the following statistics of cotton lint ginned :—

	Nyanza	Coast	Total
	Lb.	Lb.	Lb.
1930-1.. ..	296,080	17,303	313,385
1931-2.. ..	502,823	191,360	694,183
1932-3.. ..	1,287,845	422,928	1,710,773
1933-4.. ..	2,276,370	423,631	2,700,001

315. Progress in the Coast area in 1933-34 was retarded by the severe drought which destroyed a large area of planted cotton in the early stages.

316. A further increase in production is anticipated for 1934-35 when it is hoped that the output will exceed 10,000 bales of 400 lb. and considerable further development is possible both in areas where cotton growing is now being practised on a substantial scale and in new areas suitable to cotton growing where this crop is now receiving attention. Cotton growing is now being developed in the Kitui District and the evidence given to us indicates that there are many other parts of the Colony where cotton should provide a successful crop.

317. We urge the importance of increasing the development of cotton production in suitable native areas. In some cases this requires an increase in trained staff. We refer to this matter in the section devoted to native agriculture.

Coast ferries.

318. The suggestion has been made to us that the production and marketing of cotton and other crops in the Coast area is handicapped by the levying of ferry tolls. We are unable to subscribe to the view that this constitutes a sufficient reason for making the use of ferries free but we suggest that a case may exist for a revision of toll fees as by the institution of a system of season tickets. This question, however, is one for detailed examination in the Coast area rather than by ourselves. We feel, also that transport of produce in bulk from place to place along the Coast could be carried out more economically by sea than by land and that the development of production in that area should be accompanied by attention to the possibilities of sea transport services.

THE TIMBER INDUSTRY.

319. The annual quantity of timber cut in the Colony has ^{Production and resources.} only once reached $1\frac{1}{2}$ million cubic feet in the round. In recent years it has been well under 1 million. The quantity of timber available in the reasonably accessible forests is stated by the Conservator of Forests to be not less than 250 million cubic feet. He adds that there is nearly as much in the at present economically inaccessible forests, including only forests of good quality, and that it is probable that much of this will become accessible within another generation. In addition the plantations already established will in from about sixty years hence and onwards be producing over 1 million cubic feet per annum. In the opinion of the Conservator of Forests, the Colony could afford to cut at least three or four times the present maximum annual cut. The main forest problem therefore is not so much to conserve supplies as to find increased outlets and to enlarge the present markets.

320. The local market will only increase to any considerable extent with increased development of the Colony. The mining industry should eventually absorb a great deal and there are certain large and growing requirements, such as boxes, at present mainly imported, which the local industry with proper organization and experiment should be able to supply. The export market presents difficulties owing to the Colony's geographical position, to the relative inaccessibility and very mixed composition of the forests, and to the smallness and lack of capital of many of the sawmilling firms.

321. The only visible timber exports of any size in recent years Pencil cedar. have been exports of pencil cedar. This has an established market which is, however, only small at present and the prospects of further development are obscure. Kenya pencil cedar is well known in several countries and with care and persistence the market is likely to grow. The wood had drawbacks in its hardness, tendency to warp and excessive oil content, but it has all the genuine properties of pencil cedar. The Forest Products Laboratory in England has been working on a treating process which it is believed is nearly complete and very successful in softening and seasoning the wood. The trade would have increased more rapidly but for the severe competition of substitutes which though not so good are thought good enough in many markets and are very cheap. At the same price Kenya slats are preferred but it is difficult to produce them at that price. Government grading will be desirable eventually but the market is too restricted for this to be necessary as yet.

322. There are certain other timbers which could be exported Other woods. in quantity, e.g. podo, camphor, olive (*Musharagi*). Of these last two, trial consignments have been sent to England and well

reported on. Larger consignments have been or are being sent and through the agency of the Forest Products Laboratory will be used in the construction or furnishing of various public buildings which will provide a thorough trial and demonstration. There are other timbers which are likely to be valuable for special purposes but the physical properties of the various timbers and the quantities available have first to be ascertained.

The Co-operative Society.

323. A promising development in the Kenya timber industry has been the establishment of the East African Timber Co-operative Society Limited, as selling organization embracing twelve of the principal mills. What is needed is that a more comprehensive organization should develop out of this with sufficient capital to hold larger stocks, to start special enterprises with modern machinery such as box plywood factories, and to be able to devote persistent effort to the development of an export trade in suitable timbers.

**Enumeration
of timber
resources.**

324. Proposals placed before us include the establishment of a small timber research station and the hastening of the process of enumeration of the Colony's timber resources. This latter project has been put forward for many years past as a necessity if the timber trade, especially the export trade, is to be developed. We are informed that it would be possible with two additional foresters to start an enumeration party and recommend that Government should make these appointments as soon as circumstances permit. We are satisfied that no real development of the export trade and even of the local trade (e.g. catering for the varied requirements of mining) can be attempted until the accessible quantities of the various kinds of timber are accurately known. As there is at present a strong desire in Britain to buy Colonial timbers, work should be begun as soon as possible and there is risk in delay.

**Timber
Research
Station.**

325. We understand that the establishment of a small timber research station at the Public Works Department yards in Nairobi has already been advocated to Government. It was hoped that this might be shared by Tanganyika and Uganda and this was discussed at the recent Governors' Conference. It has been the experience in India, Burma, Malaya, Australia, and South Africa that timber research has led to greatly increased use of the local forest products. A research station usually requires a large initial capital expenditure but in Kenya sufficient facilities already exist, e.g. artificial seasoning kilns, timber preservative tank, wood working shops, strength testing machines, railway siding facilities, office accommodation and ample shed space for air-seasoning experiments, etc. There is also a fully qualified engineer with the necessary scientific training and large local experience available for the work. The total cost would

be less than £1,000 per annum and more than half of this would be represented by a corresponding reduction in the present Public Works Department expenditure.

326. The organization of the timber seasoning branch of the Public Works Department recently came under review by the Expenditure Advisory Committee and we are not prepared to advocate increased expenditure on timber research at the present moment. In our opinion the machinery on hand should be retained and the organization should continue to be run on present lines until the need for more intensive timber research work has become more immediate.

327. We are glad to learn that with a view to the development Grant from Colonial Development Fund of an export of timber from the Colony in connection with the British demand for Colonial timbers, a grant has been obtained from the Colonial Development Fund to enable an officer of the Forest Department to study timber utilization and timber trade methods in England. On his return this officer will be available to advise sawmillers on sawing and stacking methods and to put them in touch with the trade in England. His services will also be useful in connection with any grading schemes that may be introduced.

328. The local timber industry suffers from being divided among too large a number of small units each with insufficient capital for efficient development such as the purchase of modern machinery, the accumulation of stocks for seasoning, and experiment with new timber and new markets.

329. The policy pursued by the Forest Department is to refuse to grant further forest concessions. We agree that this policy should be continued. Applications are often received from small mills working on farms when the farm timber becomes exhausted. The forest reserve mills can easily cut far more than the present requirements of the Colony. An increase in the number of mills in forest reserves would not increase Government revenue but would increase expenditure as the additional areas would have to be marked and measured, nurseries established and replanting undertaken.

330. We have received evidence to the effect that difficulties on the local market are being occasioned by the situation of mills working on private land, *vis-à-vis* those in forest reserves. The former pay no royalty on timber cut and hence can undercut the forest reserve mills. The East African Timber Co-operative Society is not fully representative. There are twenty-four mills in forest reserves, of which ten are inside the society, ten are independent, and four are closed down. There are fifteen mills on private land of which twelve are outside the society and two are closed down.

Mills inside the society cut some 70 per cent of the timber cut from forest reserves.

331. The sales of timber from forest reserves in 1932-33 have fallen to some 37 per cent of the average annual amount in the period 1927-30. In 1931 and the first part of 1932, when the depression had supervened but the co-operative society had not come into being prices fell to a very low level. The influence of the Society has brought greater stability but prices are still some 20-30 per cent lower than in 1927-30.

332. The number of mills has increased and hence costs must have increased, but mills which were expected not to stand the strain are still in operation. Tenders have to be kept below a proper level because of the influence of non-royalty timber. It is stated that no mill within the Society has shown a profit during the last two years, though one or two have just managed to balance their account by making no depreciation allowances. The following figures relating to the period September-December, 1933, and to timber sold in truck loads illustrate the position of the millers :—

Railage amounted to 32.8 per cent of the selling value at the mill.

Royalty amounted to 30 per cent of the selling value at the mill.

Commission to dealer amounted to 33 per cent of the selling value at the mill.

Measures suggested. 333. Measures suggested to us in support of the industry include :—

- (a) Reduction of royalties.
- (b) Restriction of cutting on private land.
- (c) An excise duty on timber cut on private land.
- (d) Compulsory co-operation.

334. The first alternative would involve loss of Government revenue, though this might be partly compensated by enabling mills in forest reserves to compete with those on private land. The second and third alternatives do not appear to us to be practicable. It has to be remembered also that mills on private land make payments corresponding to royalties, which form a source of revenue acceptable to farmers. It has been suggested that a farmer on leasehold land should have no right to sell timber off the farm, but most of the alienations are of long standing and no suggestion has hitherto been made that the right of the occupant to sell timber should be restricted. With regard to the last alternative it is understood that the industry is willing to agree to a measure of price control by Government.

335. From the evidence given to us we have come to the conclusion that the time has not yet arrived for any steps to be taken outside the industry to make co-operation in the timber industry compulsory. That a greater measure of co-operation would be of immense benefit to the industry is undoubted but we believe that the efforts made towards securing widespread co-operation on a voluntary basis should be given a more protracted trial before any degree of compulsion is applied. The time may come, sooner or later, when a case for compulsion can be completely established but we do not consider that that time has yet arrived.

336. We are unable to make any recommendation for a general reduction in royalties but we suggest that the importance to the Colony of developing an export trade in timber justifies consideration of a further reduction in the royalties levied on timber exported. The rebate at present allowed on export timber is 60 per cent of the royalty. Consignments of timber have recently been exported to South Africa and Southern Rhodesia and we are informed that these have brought a return covering expenses but providing no profit to the exporter. In view of the importance to the Colony of developing an export trade in the Colony's timber resources we suggest for Your Excellency's consideration that the rebate of royalty on timber exported from the Colony should for a period of five years extend to the whole of the royalty and that the matter should be reviewed at the end of that period.

337. All imported timber bears a customs duty, but imports boxes are admitted free. In 1933 boxes to a value of £16,000 were imported. Boxes for creamery purposes come from Scandinavia and other kinds from Japan. We have had evidence that a local box superior to the imported article can now be produced locally and that whereas in the past it has not been found possible to use local boxes, for instance, for butter for export, a box has now been produced with which the Co-operative Creamery Company Limited express satisfaction. The use of boxes made of local timber for this purpose is, however, for the present confined to up-country. The royalty paid on local timber together with the cost of railage to the Coast makes it impossible for boxes made of local wood to compete with the imported article on coastal markets.

ESSENTIAL OILS.

338. The essential oil industry of the Colony is still in its infancy. Areas harvested have been :—

1930	...	...	...	...	1,683	acres.
1931	...	...	...	...	1,859	„
1932	...	...	...	...	1,953	„
1933	...	...	...	...	1,949	„

339. A type of geranium for producing oil has been grown for some years at Njoro, but the oil produced is not considered of very good quality. However, during the last two years a geranium producing oil of the highest quality has been developed which will find a ready sale on the world's markets. Areas are under mint in various parts of the Colony, and a still to deal with it is now in course of erection at Molo. Lemon grass is being grown at Hoey's Bridge, where a still has just been erected. Other essential oil-producing plants are being tried out in various parts of the Colony.

340. Experts in the essential oil business have recently visited Kenya, and all are of the opinion that the Colony is ideally suitable for the production of essential oils.

341. A meeting of producers recently requested Government to introduce compulsory co-operation and control of the industry by a board of producers, and we understand legislation on the lines suggested will be introduced shortly.

342. There is every reason to believe that this industry will become one of real importance to the Colony.

BEES-WAX.

343. Exports of bees-wax from Kenya have ranged about 50 tons per annum during the last three years. The price on the export market is at the attractive level of £93 per ton. Having regard to the number of bees present throughout the Colony the potentialities for development should be considerable and we believe that further attention and encouragement should lead to a valuable export industry being built up. Existing methods of handling bees and their produce, however, leave much to be desired.

344. The efforts of the Agricultural Department are directed towards persuading natives to use improved hives fitted with queen excluders, to discontinue the practice of burning out hives and to adopt methods to avoid the discoloration of wax and admixture of foreign matter. Special arrangements have been made with a private firm under which agricultural officers purchase the wax from natives to the order of an exporting firm. This arrangement is a temporary one for the purpose of getting the trade established as a going concern.

345. We recommend that a campaign to popularize the queen excluders be undertaken throughout the Colony as we understand that a similar campaign conducted in Tanganyika Territory has met with considerable success.

FRUIT.

346. The world demand for fruit appears to show a definite upward trend. With the variety of climatic conditions in Kenya it is to be expected that considerable development of fruit production will become possible in the future.

347. Certain types of fruit have proved eminently successful in restricted localities in Kenya. In general, however, production takes the form of a wide assortment of kinds and varieties, in scattered orchards established for domestic or experimental purposes. Though the variety of climatic conditions may increase the number of varieties which can be grown it has the disadvantage that types must be evolved to suit each different set of conditions.

348. It must take many years to evolve types suitable to particular circumstances in Kenya. It may be doubted whether the present system of haphazard experimentation by numerous individuals, unaccompanied by scientific recording of data will ever produce the results necessary as a preliminary to the development of an export trade. Standardization of kind and quality has reached a high pitch of perfection in international markets to-day. It is necessary for a fruit-exporting country not only to establish types suited to the growing conditions and to market requirements, but to maintain a specialized scientific service for research into problems of packing and transportation, temperature control, insect and fungoid pests causing blemishes, etc.

349. The Department of Agriculture has carried out no investigational work into fruit problems, and there is no officer on the staff of the Department with any specialized knowledge of the subject. We are informed, however, that the Director has made representations for the provision of an officer for investigation into fruit—chiefly citrus—problems in the coast area. We strongly support the Director of Agriculture's recommendation for the appointment of an officer for investigational work. We suggest that for such an appointment steps should be taken to ascertain whether a suitable officer can be recruited from South Africa.

PYRETHRUM.

350. This is a comparatively new industry, and exports have taken place during this year for the first time. Accurate figures are not obtainable at present, but there are returns showing that 425 acres are now in bearing. It is estimated that 33 per cent should be added to this figure to cover those who have failed to send in estimates.

351. The figures received are from sixty-two estates and show that they have generally only a small area under pyrethrum. However, the success so far met with has been such that a rapid increase in the acreage under this crop is anticipated. The area in the Colony capable of producing pyrethrum is considerable. It has been grown successfully at Kiambu, Naivasha, Rongai, Molo and the higher portions of the Plateau.

352. The local market consists wholly of powdered flowers used to make insecticides. The overseas market is for baled dried flowers. Reports from overseas of samples posted show that the flowers produced have a higher value than those from other countries. It remains to be seen whether this high standard can be maintained for exporting in bulk. Sales have been made at prices ranging from £100 down to £80 per ton c.i.f. London. Sales have also been made to America.

353. The chief pyrethrum-producing countries of the world are Yugoslavia with 5,588 acres, and Japan with 40,002 acres.

It must be remembered that although pyrethrum powder has been in use for hundreds of years the real value has only recently been realized. In fact, it was not until 1929 that a method was discovered of determining the pyrethrin content of flowers. As late as 1930 the world supply was derived from 995 acres in Dalmatia and 5,930 acres in Japan.

**Proposals
made.**

354. The proposals placed before us by the Kenya Farmers' Association on behalf of the pyrethrum industry are as follows :—

- (1) Compulsory co-operation.
- (2) The duty on kerosene used for spraying where locally-grown pyrethrum powder is used with it should be refunded.
- (3) Obtain an assurance from the Imperial Government that they will introduce 10 per cent protection when we are in a position to supply the whole of Great Britain's requirements.
- (4) Assist in the reduction of marketing costs.

**Compulsory
co-operation.**

355. We are informed that the whole industry is pressing for compulsory co-operation, that the necessity for it is very real and that only good can result from the early introduction of legislation dealing with the matter. The following arguments are adduced in favour of compulsion :—

- (1) Flowers will have to be graded previous to baling, and this will require very considerable care and skill, and become a matter of personal experience rather than a mechanical process.

- (2) To obtain the lowest marketing costs proper baling must be resorted to and this requires an expensive plant.
- (3) Uniformity is necessary if the best price is to be obtained and a good name won in the markets of the world. The question of inspection and selection before baling is so important that the large American importers maintain a chemist in Japan to inspect the flowers there before baling and purchase.
- (4) The world sources of supply of pyrethrum flowers is limited. Kenya may become one of the largest exporters, and it will be most unwise if the whole of the flowers are not marketed through one organization.

356. We admit the cogency of the arguments in favour of organized control and recommend that steps should be taken to introduce legislation for this purpose.

357. Local marketing costs are high and the local powder is sold in competition with made-up sprays imported by the oil companies. We are informed that sprays are mixed at the coast in bond, and then imported as insecticides, paying no duty, while the farmer using local powder must purchase kerosene as such which has paid duty. His spray is therefore made expensive to the detriment of the sale of locally grown and produced powder.

358. We recognize that this disability exists but are not satisfied on the information before us that a refund of the duty on kerosene used for mixing with local pyrethrum powder is the proper way to deal with it. If the industry is established on an economic basis the locally-produced powder should be able to compete with imports from overseas and arrangements should be possible for the local powder to be used for mixing in bond, not necessarily at the coast. If, however, this method proves impracticable we recommend that the system of a refund of the duty on kerosene used for mixing with pyrethrum powder should be approved.

359. The information at our disposal does not enable us to do more than submit for Your Excellency's consideration the suggestion that the Imperial Government be approached in regard to the grant of tariff preference to pyrethrum from Kenya entering Great Britain when local production is in a position to satisfy the whole of Great Britain's requirements.

360. The question of marketing costs, both locally and overseas, Marketing costs. is largely associated with railway rates and shipping freights. For export sales it is necessary to have pyrethrum carried to a central

point, there to be graded and baled. The railage on the flowers to the central point, Nakuru, where these operations are carried out is as follows :—

Molo to Nakuru	Sh. 10/98 per ton.
Naivasha to Nakuru	Sh. 17/25 , ,
Nairobi to Nakuru	Sh. 36/52 , ,
Kitale to Nakuru	Sh. 51/52 , ,
a crude average of ...	Sh. 29/06 , ,

361. On the baled flowers the railage Nakuru to Kilindini is Sh. 72/36, giving an average total railage of Sh. 101/42 per ton. The sea freight charged was Sh. 304/60 per ton, and port charges Sh. 15. These items alone amount to Sh. 421/02 per ton. Recently the sea freight has been reduced by the shipping companies to Sh. 90 plus 10 per cent per ton of 40 cubic feet.

Through railway freights.

362. In view of the fact that pyrethrum has to be transported to a central depot in order to be compressed in a marketable form, we recommend that there should be a system of through railway freights for export, similar in kind to the milling in transit rates for coffee. Pyrethrum is an easy freight to handle and the charges at present levied on it on the Railway appear to us to be very high.

OTHER INDUSTRIES.

Pig products.

363. The pig industry is peculiarly liable to fluctuations owing to the tendency of farmers to expand and contract operations according to the state of the market at the time. The local market for pig products is small, and by-products cannot be effectively utilized. Markets have been sought in Uganda, Zanzibar, Tanganyika and the Belgian Congo. Export costs are high, and there has been overproduction in Europe and other large producing areas. In fact Danish competition has been felt even as near as Dar es Salaam.

364. The bacon market in the United Kingdom is adequately supplied by European countries and Canada. With the long sea journey from Kenya effective competition is impossible. An experiment has been made in the shipment of frozen pork to the United Kingdom, but the results were discouraging. The pork trade in Britain is a seasonal one and prices of recent months have not been attractive. Keen competition from Australia and New Zealand has to be met, both of which dominions have set a very high standard of type and quality.

365. In almost all well-developed dairying areas pig production forms a useful if not a necessary adjunct as a means of turning waste products into a saleable article. It will doubtless prove

necessary to develop a trade in pig products from Kenya as the dairy industry grows. At the present time, however, we cannot see that anything can be done except to carry on with the process of improvement of the existing stock against the time when entry into world markets may become possible.

366. Kenya, in particular the native reserves, is well suited to ^{Eggs and} egg production. The production on European farms is increasing slowly and besides catering for the local market has made some progress in supply to ships. An inspection and grading service has been established by the Kenya Farmers' Association.

367. The United Kingdom imports large quantities of eggs annually. These are mainly from neighbouring countries, though Australia and South Africa have recently established a footing in the market. It is possible that during a small portion of the year Kenya could export eggs profitably to the United Kingdom if railway and ocean freight charges did not place her at a disadvantage.

368. The greater possibilities, however, appear to be in the direction of dried or frozen egg products, of which supplies to a total value of about £2,000,000 are imported annually into the United Kingdom, mainly from China. Empire preferential duties are in force. Though returns are low it is possible that this trade would offer a useful outlet for low-grade supplies from native reserves.

369. The cultivation of cashew nuts is being developed in the coast area. The nuts sell at an attractive price and a useful trade should develop. The industry is being safeguarded by the issue of a sole buying licence to purchase the nuts, the object being to ensure that the Kenya article will secure a favourable reputation. ^{Cashew nuts.}

V.—THE NATIVE AREAS.

370. We referred in Chapter III to some aspects of the problem of development in native areas. The conclusions we reached in that chapter were that Government should press forward in every possible way the production of commodities for export and that in the adoption of a positive policy of promoting production on a definite and sustained plan, the Government could play a vital part in advising and guiding the native producer, in safe-guarding his interests in the disposal of his produce, and in stimulating an increase in production.

371. The Colony has large potential resources and a great part of its most fertile lands lies in native areas. A policy of promoting

production for export necessarily entails a sustained and organized plan of increasing production in native areas. It also entails special consideration of the possibility of finding markets for surplus native stock and of the problem of preserving existing assets in the land which are in grave danger in some native areas owing to over-stocking. And it requires a greater degree of organization in the marketing of native produce. We deal separately with these three matters in this chapter of our report. In the following chapter we shall submit our recommendation for the appointment of a Standing Board of Economic Development which would play an important part in the co-ordination of the plan of development in the native areas.

(A) NATIVE PRODUCTION.

Published statistics of exports misleading.

372. Native production in the Colony is already considerable, much more considerable than available statistics purporting to show the value of exports of "native" origin would indicate. Such statistics, in fact, are altogether misleading. Taken at face value they would suggest that the effort made by natives towards the Colony's production for export averaged something under £400,000 annually for the last six years, a figure which appears trifling in relation to the size of the native population and the fertility of the soil.

The native as wage-earner, and producer for local consumption.

373. We give the relevant figures below, but, before doing so, we wish to say that we regard them as completely unrepresentative of the productive effort now being made by the natives in Kenya. If any comparison is deemed necessary between the value of "native" and "non-native" production in the Colony, a correct picture of the position will not be obtained by showing on one side the agricultural exports of "native" origin and on the other side the remainder of the Colony's exports. Such a comparison would overlook two essential considerations: the fact that practically all the manual labour necessary to the production of any part of the Colony's exports is performed by natives who earn large sums in wages in the effort to produce "non-native" exports; and the fact that large quantities of produce of "native" origin are consumed in the Colony outside the reserves and, though not themselves reaching the export market, liberate "non-native" produce to do so.

374. Some four years ago it was estimated that the gross amount earned by natives in wages was in the neighbourhood of £2,000,000 per annum. Since then the general rate of wages has fallen and there has been a decline in employment, but the figure must still be considerable. The average number of adult male natives in non-native agricultural employment during 1933 was 81,880 and rather more than half this number, namely 48,100, are

employed in other occupations outside estates. These figures, in spite of the reduction in employment in 1933 as compared with previous years, represent approximately 2 per cent of the total male native population between the ages of 15 and 40 years. No estimate can be made of the value of produce of "native" origin consumed in the country, but that again must be large. The native areas provide almost all of the food consumed in those areas as well as most of the food consumed by natives outside the native areas. Appreciation of these facts seems to us to be necessary to consideration of the statistics of exports of "native" origin.

375. But we do not argue from these considerations that the Considerable native productive effort is already adequate. We know that it is increase in not and that it is capable of great expansion. Our view of the possible. matter is that the stimulation of production in native areas should bring about a very great increase in the quantity of exports of "native" origin. The effort now being made by the natives is, as we say, considerable, but only perhaps one-fifth or one-sixth of it finds its way into the figures of exports of "native" origin. A relatively small additional effort is required to double or treble the quantity of "native" produce exported. There is a wide margin in this. Much greater quantities can be produced than are now being produced, and with every increase in productive effort the effect on exports will be disproportionately large.

376. The stimulus to native production of inedible crops for export is mainly associated with the tangible results following from the increased effort. Once the native understands that money has value and that, with the proceeds of the additional effort made, goods can be bought which will raise his standard of comfort, the price factor becomes important. The same is true in some degree of the production of edible crops, with this difference, that when the price obtainable for such crops is low there is a tendency for the surplus over normal consumption requirements to be used or eaten rather than sold. Stimulus to native production.

377. Nevertheless, development in native areas is taking the line along which money income is spent not only on the purchase of cattle and local and imported goods, but also by contributions to Local Native Councils for the provision of extended services for the general benefit of the area, as by way of further educational, medical, and other public services, and in all these directions there is available to the native producer tangible evidence of the benefits of increased wealth. The field is, in our opinion, set for an increase in productive effort which will redound to the benefit of the native and of the Colony as a whole. We urge that the Government should do everything in its power to assist and direct this effort.

Exports of
"native"
origin.

378. We now give the figures available regarding the direct contribution of the native areas to the Colony's exports. The following table, taken from the Agricultural Census, gives the estimated values of exports of "native" origin during the last six years :—

	1928	1929	1930	1931	1932	1933
Animals	£ 11,000	£ 10,300	£ 8,600	£ 5,000	£ 3,600	£ 2,300
Beeswax	—	3,000	2,000	4,500	4,000	4,000
Copra and Coco-nuts ..	23,000	2,500	2,250	1,200	500	1,000
Cotton	24,000	24,800	17,200	6,500	8,600	23,600
Cotton seed	—	5,400	5,000	—	500	300
Groundnuts	19,659	29,500	16,500	6,000	1,200	3,200
Hides	200,000	220,000	105,000	60,000	86,500	130,000
Maize	50,000	45,000	75,000	—	12,500	36,000
Millets	423	240	2,800	20	100	300
Pulse and Beans ..	13,000	12,500	14,000	6,000	6,000	6,000
Sesame	17,355	27,500	15,200	5,000	28,500	36,700
Ghee	—	4,500	4,900	3,800	6,700	7,100
Skins	100,000	87,000	73,000	35,000	15,700	20,000
Oils, Various	5,000	10,000	6,700	3,200	5,600	6,000
Potatoes	7,000	24,000	10,500	13,000	9,300	8,000
Wattle Bark and Extract ..	—	35,000	42,000	71,000	79,500	66,000
Miscellaneous	2,000	2,000	2,000	2,000	4,000	5,000
TOTAL .. £	472,437	543,240	402,650	222,220	272,800	355,500

379. The significance of the above table is masked by the fact that unit values have fallen during the period under review. In the following table, the various items have been expressed in terms of approximate quantities :—

	Unit	1928	1929	1930	1931	1932	1933
Copra and Coco-nuts	Cwt.	2,165	2,740	2,680	3,250	1,000	6,000
Cotton	"	4,432	7,104	5,421	2,795	4,032	9,600
Cotton seed	"	—	15,503	4,627	—	3,400	2,060
Groundnuts	"	23,405	35,455	30,040	13,280	2,480	7,940
Hides	"	51,735	61,369	43,033	31,848	53,000	90,200
Maize	"	142,500	112,000	293,000	—	54,700	190,000
Pulse and Beans	"	18,154	16,460	27,300	18,460	19,000	7,600
Sesame	"	16,645	29,690	22,600	9,720	45,400	65,240
Ghee	"	—	—	—	—	—	2,309
Skins	Thousand	1,669	1,457	1,664	887	523	940
Oils, Various	Gallon	28,083	45,831	37,502	23,289	43,129	95,237
Potatoes	Cwt.	57,296	82,755	45,018	49,723	43,835	35,679
Wattle and Extract (as Dry Bark)	Ton	7,923	6,154	8,466	9,670	12,106	13,300

380. In considering these figures, the following factors should be borne in mind in addition to those referred to in the earlier paragraphs of this section :—

- (a) The depression, locust depredations and drought have largely marred the results of recent organization and work. In some districts losses due to locusts were approximately 20 per cent or more of grain crops, involving a shortage of over 200,000 bags of grain. To some extent this was made good by the consumption of oilseeds which would otherwise have been exported.
- (b) Owing to the locust menace the Agricultural Department and administrative officers have carried out a campaign for the planting of root crops to ensure food supplies. In some reserves such crops have increased 500 per cent in the past four years, and to some extent this may have been at the expense of exportable crops.
- (c) Considerable areas are normally deficit areas as regards crop products. Pastoral areas such as the Masai and certain other reserves normally import maize meal. Payment is made in the form of cattle, which give no corresponding output of produce for export. In times of famine the normal importation of foodstuffs is exceeded.
- (d) During locust years administrative officers, agricultural officers and very large numbers of the natives were on locust work at a time when the planting of crops would otherwise have received attention. Smaller plantings of annual crops resulted.
- (e) The native diet has without doubt improved to some extent and a greater quantity and variety of food are consumed per head in the reserves than was the case some years ago.
- (f) A large part of the productive area of the native reserves in the Colony is situated in the Highlands country which is not suited to the usual relatively high-priced annual crops such as cotton, groundnuts and rice. On the other hand, some of it is suited to the high-priced crop coffee. At present, normally low-priced crops, such as maize, beans, potatoes, millets and wattle bark are grown for cash.

381. We have given much thought to the problem of how to increase the contribution of native areas to the wealth of the Colony. The view generally put before us by administrative officers in charge of districts and by officers of the Agricultural Department is that it is a matter of providing an extended measure of assistance

and guidance by agricultural officers working in close collaboration with the Administration and that more agricultural officers and native instructors are required.

382. According to representations made by the Department of Agriculture, Government services for native agriculture are below actual requirements. Policy has been directed to the provision of services where it is believed that the wealth of the natives will be most rapidly increased. Officers of the Administration have, in districts without agricultural services, struggled to establish or improve agriculture, but owing to the many duties they are called upon to perform, the undeveloped state of the agriculture, the infinite variety of conditions in the Colony at altitudes from sea level to 7,000 feet, and the necessity of direction by officers possessing the necessary training, an increased staff of agricultural officers is urged for the following districts particularly :—

Kitui, South Nyeri, Central Kavirondo, Voi-Taveta, Digo and Nandi-Lumbwa.

383. We refer in greater detail to these specific proposals in *The case for a later paragraph*. We wish first, however, to examine the *case* ^{an increase} _{in staff} as presented to us for an increase in trained staff with a view to stimulating production in native areas more particularly as the recommendations we make on this matter depend on the evidence we received as to the work now in progress and as to the results which might be anticipated from the appointment of additional staff for this purpose.

384. The organization of a special staff to assist native agriculture was one of the recommendations of the Economic and Financial Committee of 1922. In the Estimates for 1923, provision was made for a staff of six supervisors and fifteen native instructors for this purpose. During succeeding years the staff and the scope of the work developed and experience was gained as to the methods best able to ensure results. This experience led to a reorganization of the instructional effort some four years ago. Up to that time the work of agricultural officers lay largely in direct instruction of the natives in methods of cultivation, and in the maintenance under close supervision of small demonstration plots. The results of this method proved disappointing.

385. It was decided to discontinue the demonstration plots and *Seed farms*. to build up a staff of fully trained and qualified agricultural officers. Funds were supplied by the Local Native Councils for the establishment of seed farms in which high-yielding seeds of better quality could be tested under expert supervision. Each district served by an agricultural officer now has at least one large seed farm and

some have a few small ones, the former managed personally by the agricultural officer, the latter by native instructors under his guidance. On these farms experiments are conducted with new crops or improved varieties and with new methods of cultivation of existing crops, existing crops are improved by selection for yield and early maturity, proved crops or varieties are bulked for seed distribution, and organized demonstrations to natives are given regularly. The experimental work is done at the expense of Government, the seed production at the expense of the Local Native Councils. This organization was introduced in 1931, not without some misgiving on the part of certain Provincial Commissioners who now, however, give this system strong support. The farms provide focus and definition to the work of the agricultural officer which was lacking before 1931, one reason for the retarded native development before that year, and they ensure a live interest in the agricultural development of the area by the Local Native Council concerned.

**Propaganda
and
instruction.**

386. Agricultural propaganda and instruction is carried out chiefly by a staff of native instructors under the guidance of the agricultural officer. Apart from such guidance the agricultural officer performs two important duties in this connection, viz. organizing and addressing meetings of natives, and promoting projects and propaganda through the Agricultural Committee of Local Native Councils of which he is chairman.

387. Two agricultural schools have been established for some years, with approximately sixty pupils at each school. The primary object of these was to train native instructors, but it has not been possible to absorb into the Service all those who have undertaken the course of training. The remainder, in the majority of instances, have returned to their locations, and have had a beneficial influence.

**Native
Agricultural
Shows.**

388. In years past, when funds were available, native agricultural shows were an important branch of native agricultural education, and examples of the best produce and of what could be grown in districts were seen by all sections of the population. By this means incentive for others to produce equally good crops was provided. These shows have demonstrated that very considerable advance in quality and variety has been made in native produce. Local shows have been discontinued during the depression but large native exhibits appear in the Nairobi Show from all main native districts and visits by selected natives are organized.

**Labour-
saving
appliances.**

389. Agricultural officers have brought about a rapid expansion in the use of labour-saving appliances by natives during recent years. As far back as 1930 it was estimated that over 600 ploughs were in use in the Nyanza Province. The number in use in 1934 is not known, but is considerably in excess of the 1930 figure.

390. To encourage output, improve the standard of cultivation and reduce the burden of the women who do much of the heavy digging work, the Local Native Councils of Nyanza voted funds for the provision of services of native ploughing instructors. These served a need, but it is recognized that the use of ploughs by natives is not suited to all areas. The beneficial use and scope of implements depend largely upon the size and shape of holdings and the contour of the land. As the majority of holdings in the Central Province are small and the country undulating, and as tsetse fly is prevalent in the Coast Province, fewer implements are in use in these Provinces than in Nyanza. Hand machines for grinding corn and cream separators are popular and their use is increasing. The use by natives of ox and donkey carts for transport is also becoming more common.

391. Powers provided under existing legislation are being Marketing. applied in respect of the inspection, handling and disposal of wattle bark, simsim, maize, groundnuts, cotton and cashew nuts. As examples it may be mentioned that the sale of wattle bark is prohibited during wet months when drying is difficult. The offering for sale or purchase of groundnuts prior to a certain date is also prohibited in the interests of growers. To initiate the work of improving bees-wax and increasing exports, special arrangements have been made with a private firm under which the agricultural officer purchases the wax. Maize, simsim and groundnuts in certain areas and wattle bark throughout the Central Province may not be sold outside the region of production without inspection for quality. All this work falls under the direction of the agricultural officers.

392. For the important task of reconditioning and prevention Recondition-
of erosion, demonstration work is in hand and is meeting with ing and soil
gratifying success, particularly in the Machakos district where over
a hundred natives within one year have put into practice on their
shambas the methods demonstrated by the agricultural officers. erosion.

393. The utilization of waste products of the land is being fostered by instruction in methods of converting them into compost. Waste of fertility entailed in allowing animal manure to remain in cattle *bomas* exposed to bleaching by rain, exposure to light, and by failure to apply it to the soil is especially emphasized, as well as the planting of the wattle tree for renovating worn-out soils. Powers of compulsion for such measures to prevent the native ruining his own land are considered to be justified by the extent and serious nature of the problem in certain closely populated areas.

Animal products.

394. In most districts served by agricultural officers where there is no veterinary staff, the work of improvement of hides and skins, of organizing and improving ghee supplies and of rearing and distributing pure-bred poultry, falls under the agricultural officer.

Instances of progress made.

395. The value of this work is difficult to express in terms of money, but we quote four examples as given to us :—

- (a) Three or four years ago, with an inadequate and not fully qualified staff, the production of cotton was stationary at about 2,000 bales. For the present season it has risen to from 6,000 to 7,000 bales and it is expected that production will amount to 10,000 bales or more in 1935.
- (b) Until last year, cotton grown in the Nyanza Province was valued at a figure below Uganda cotton. Owing to better methods of cultivation and sorting recently made effective in Nyanza, the prices are now equal.
- (c) Two years ago Kenya wattle bark sold at Sh. 30 per ton below Natal wattle bark. The control measures introduced have effected an improvement in quality resulting in the difference in price being reduced to Sh. 10 per ton as compared with Natal wattle bark.
- (d) 4,500 acres of swamp land were drained under direction by agricultural officers in 1933 and are now under cultivation and irrigable.

396. Improvements have also been recorded in the quality of the maize, beans and potatoes produced from native areas; there is large expansion in the output of simsim; a trade in cashew nuts has been started and developed at the Coast; and in many other ways the services of trained agricultural officers have amply proved their value.

Importance of trained staff.

397. The point we wish to stress at this stage is that, having heard evidence of the work now being undertaken in native areas, we are satisfied that the development now taking place is due in large measure to the appointment of fully trained agricultural officers and that an increase in fully trained staff is a necessity to any determined attempt to promote further production in new areas.

398. We do not mean by this that every new agricultural officer must necessarily possess full qualifications before appointment. In some districts all that is required can, for the present at any rate, be performed by assistant agricultural officers working under supervision and occasional inspection by the agricultural officer from a neighbouring area. But we consider that due regard

should be paid to the value of the work being performed on the lines of present policy and we recommend the appointment of additional agricultural officers and assistant agricultural officers to continue and intensify the work and to open out the prospects of increased production under competent direction in areas for which no trained agricultural advice and assistance has yet been made available. We are confidently informed by the Deputy Director (Plant Industry) that the appointment of an agricultural officer to each of the districts referred to would within three years add not less than £20,000 per annum to the wealth of the district in which he is working. We regard that as a very significant statement.

399. Our recommendation on this matter is that provision be made for three additional active posts of agricultural officer and four additional active posts of assistant agricultural officer, these seven new appointments being distributed in the following manner : Recommendation for additional appointments.

One Agricultural Officer for Kitui.—Work has already started in cotton planting in this district by redistribution of staff, but the present establishment does not enable this work to be continued without relaxation of effort in another area. We regard it as very important that the services of an agricultural officer should be made permanently available in the Kitui district.

One Agricultural Officer for Central Kavirondo for work particularly on the Kano Plains which carry a large population and offer marked possibilities for further cotton production.

One Assistant Agricultural Officer for Karatina to work in this important and thickly-populated area in association with and under the direction of the Provincial Agricultural Officer, Nyeri.

One Agricultural Officer for Baringo area with special qualifications covering agricultural work under irrigation.

One Assistant Agricultural Officer for each of the following areas :—

Lumbwa-Nandi to stimulate wattle planting and improvement in food crops ;

Digo, for work on cotton, cashew nuts and other crops ; and

Teita, for general development work.

400. We are informed that additional agricultural officers are also required for relief purposes, but we have not concerned ourselves with this aspect of the matter, confining our recommendations to the active establishment which we consider necessary for

agricultural work in native areas. For convenience we show in the following table the distribution of the present active staff together with that of the additional staff required :—

PROVINCE	District	Station	Existing	Required
CENTRAL ..	Province ..	Nyeri ..	One P.A.O.	—
	Fort Hall ..	Fort Hall ..	One A.O.	—
	Embu ..	Embu ..	One A.A.O. (temporary)	—
	Meru ..	Meru ..	One A.A.O.	—
	Kiambu ..	Kiambu ..	One A.O.	—
	S. Nyeri ..	Karatina ..	—	One A.A.O.
	Machakos ..	Machakos ..	One A.O.	—
	Kitui ..	Kitui ..	—	One A.O.
NYANZA ..	Province ..	Kisumu ..	One P.A.O.	—
	N. Kavirondo ..	Kakamega ..	One A.O.	—
	S. Kavirondo ..	Kisii ..	One A.O.	—
	C. Kavirondo .. (portion)	Maseno ..	One A.A.O.	—
	C. Kavirondo .. (Kano Plains)	?	—	One A.O.
	Lumbwa-Nandi	?	—	One A.A.O.
COAST ..	Province ..	Kilifi ..	One A.O.	—
	Kilifi ..	Kilifi ..	One A.O.	—
	Voi ..	Teita ..	—	One A.A.O.
	Digo ..	?	—	One A.O.
RIFT VALLEY	Baringo ..	?	—	One A.O.
	Officers engaged in work relating to native agriculture at Scott Agricultural Laboratories and Head Office ..			Two A.O.
				—

NOTE. P.A.O.=Provincial Agricultural Officer.

A.O.=Agricultural Officer.

A.A.O.=Assistant Agricultural Officer.

Experience in Tanganyika. 401. The present active establishment is fourteen officers. Our recommendation is that the number be increased to twenty-one. We are fully aware of the financial difficulties involved in this proposal, but we believe this to be productive expenditure which will bring results in the very near future far in excess of the cost of the services. We have evidence from a neighbouring territory of the results that can be obtained even in times of depression by means of assistance given to native agriculture and we are convinced from the evidence given to us of the direct connection between the number of agricultural officers employed and these results. During the first seven months of 1934 an increase of 15 per cent is recorded in the value of exports from Tanganyika as compared with

the corresponding period in 1933. About one-half of these exports is represented by native produce showing that a substantial increase of production has occurred in spite of depressed prices.

402. We believe that if funds can be found a large increase in the volume of exports from native areas can be effected by the appointment of additional agricultural officers in accordance with our recommendations.

403. Concurrently with an increase in the staff of agricultural officers we recommend a proportionate increase in the staff of native agricultural instructors and in the local transport and travelling votes to enable essential travelling to be performed and to spread the work over as wide a field as possible. The evidence given to us is that present travelling votes for native agriculture are inadequate to their purpose.

404. In any steps taken to increase native production, the co-operation and help of the Administration is essential. Agricultural officers have no administrative authority. Their duties are directional and advisory only. The driving force necessary to procure advancement in native rural life and production must come largely from administrative officers and the success or otherwise of the work of agricultural officers depends to a very great extent on the support received from the Administration.

405. The duty of co-ordinating the work in all its branches, of reviewing the progress made, of examining prospects for new development and of formulating plans of campaign, should be one of the principal functions of the Standing Board of Economic Development established at headquarters who should keep in touch with and impart drive to the whole movement. To our recommendation on this matter we refer later.

(B) LIVE STOCK.

406. We have dealt with the potentialities of the native reserves as a source of dairy produce and of hides and skins for export in preceding sections of this Report. It remains to consider the problem presented by the large number of native live stock not capable of being considered as a source of dairy produce or of meat for consumption outside their particular areas. In this category appears a proportion of the total number of stock in pastoral areas such as the Kamba and Masai Reserves, and male cattle not required for breeding or draught purposes in other areas.

407. The broad position is stated in the report of the Land Commission. "A human population of under 3,000,000 owns about 6,000,000 cattle and probably many more sheep and goats. . .

Annual sales, apart from sheep and goats, to outside markets are not more than 20,000 beasts . . . The enormous waste of valuable material in Kenya is lamentable. For example, during a period of two or three good seasons in the Masai Reserve the cattle population will probably increase by two or three hundred thousand; a bad year ensues and nearly the whole of that increase will die . . . We have no doubt that in the last twenty years the Kamba cattle have deteriorated both in size and in milk-yielding quality. The experience of the native training centre recently established near Machakos indicates that about 50 per cent of the heifers are considered unfit for breeding purposes when they attain maturity."

408. The evils of overstocking have been stressed by administrative officers, by Sir Daniel Hall's Agricultural Commission and by the Kenya Land Commission and need no further emphasis. The efforts of the veterinary division of the Agricultural Department on the side of disease control tend to aggravate the position both by reducing mortality and by restricting disposal of stock by quarantine regulations.

The cattle population and annual increase.

409. The Deputy Director (Animal Husbandry) estimates the cattle population of the Colony at about 6,000,000 head, and the annual increase (survival) at 5 per cent. This gives an annual increase of 300,000 head, of which only 20,000 or so are sold outside the reserves. Some are consumed by meat-eating tribes but we have no means of estimating the number so disposed of.

Proposals for amelioration.

410. The Hall Commission suggested the establishment of a meat factory as a means of coping with this increase. Further consideration has resulted in a change of view and more recent proposals are directed towards the establishment of factories for conversion of carcases into fertilizers and certain other products.

411. There can be no doubt that such factories would serve a useful purpose. The Colony imports annually 2,300 to 2,500 tons of fertilizer, valued at from £16,000 to £25,000, and the potential consumption at prices consistent with the value of farm produce is no doubt considerably greater. We have been informed that the local market can absorb the products of two plants each designed to consume 10,000 head per annum. The overseas market may offer an outlet for additional quantities.

Proposed by-product plant.

412. The erection of an experimental by-products plant at Eldalat, we understand, is now receiving the attention of Government. The Deputy Director (Animal Husbandry) is of opinion that a further plant should be erected at Simba. The former would draw upon the stock from the Kamasia, Njemps, Elgeyo and Samburu Reserves and the latter from the Masai and Kamba Reserves, supplemented with surplus game.

413. Sufficient details are not available to form a close estimate of capital and operating costs. Some information is however to hand from an experiment carried out at the Nairobi Abattoir. A batch of 177 head of native scrub cattle were put through the by-products plant at the abattoir and records were kept of the products obtained. The relevant particulars are given below :—

	WEIGHT OF CARCASE MATERIAL	Total 177 Head	Per Head
			Lb. 41,812	Lb. 236
PRODUCTION—				
Fat			629	3·55
Bone Meal			8,157	46·00
Blood Meal			755	4·27
Horn and Hoof			264	1·49
VALUE OF PRODUCTION—			<i>Sh. cts.</i>	<i>Sh. cts.</i>
Fat at Sh. 7 per 35 lb.			125 80	71
Bone Meal at Sh. 150 per ton ..			551 13	3 11
Blood Meal at Sh. 200 per ton ..			67 34	38
Horn and Hoof at Sh. 200 per ton ..			23 50	13
Hides			614 30	3 47
			<i>Sh.</i> 1,382 07	7 80

414. On the cost side we give below the results obtained on the disposal of condemned carcases through the Nairobi abattoir during 1933, converting the figures to the basis of scrub cattle averaging 236 lb. per head as in the above experiment.

WEIGHT OF MATERIAL TREATED—508 tons on basis of scrub stock of 236 lb. carcass weight.

Costs	Total	Per Head
Salaries of Engineer and Assistant ..	£ 554	<i>Sh. cts.</i> 2 30
Native Wages and Upkeep	166	69
Power and Light	405	1 68
Water	58	24
Packing Materials and Sundry Stores ..	175	73
Slaughter Hall Charges	221	92
Proportion of Administration Charges ..	225	93
Renewals	250	1 04
Loan Interest and Redemption ..	368	1 53
	£ 2,422	<i>Sh.</i> 10 06

415. We are aware that a good deal of careful analysis is necessary in applying these figures to the purpose in view. The cattle used in the experiment were of the worst possible type, being

the first cullings during a season of serious drought. Certain of the items on the cost side might be eliminated or reduced under a self-contained scheme. For instance the provisions for renewals and redemption seem to be on the generous side. The costs are swollen by the small amount of material treated in relation to the capacity of the plant. On the other hand such evidence as we have received is to the effect that estimates for the Eldalat factory put the total capital cost at a much higher figure than that of the Nairobi plant. The Deputy Director (Animal Husbandry) is of opinion that a veterinary officer in charge, a stock inspector and a mechanic would be necessary, in addition to trained native personnel. The European personnel would carry out duties in the Reserves, such as making surveys of the number of stock available, eradication of disease to permit movement, organization of stock routes and outspans, promotion of economic production of butterfat, ghee, hides and skins, receipt of cattle into a grazing reserve near the plant, marshalling daily supplies of cattle and conserving additional supplies to meet times of need, packing, storing and despatching the by-products, etc.

416. We understand that it is proposed to approach the Colonial Development Fund Committee for a free grant of the capital required and recurrent expenditure for the proposed Eldalat factory, on the grounds that it is an experiment designed to provide data on a matter of paramount importance.

417. The economic basis of the proposals merits close examination. The evidence we have received, including evidence from the Managing Director of Mwanza Meat Products, Limited., is to the effect that the prospect of returns from products other than fertilizers are remote. Meat extract is worth only about Sh. 1 per lb. for export, while the cost of manufacture is about Sh. 4. The sale of canned meat is in the hands of large firms whose position in the overseas market is unassailable; it is a mere by-product and is being sold under cost. It is difficult to induce natives to eat dried meat. Outlets for fats are limited and other by-products can only be launched on the world market by very large organizations.

418. The figures in paragraphs 413 and 414 suggest that the costs of operation are likely to exceed the market value of the products even without making any allowance for payment for the cattle. Further, if it is proposed to buy cattle in the reserves, the factor of losses between the place of purchase and the factory must be taken into consideration and these may not be inconsiderable. In fact we are forced to the conclusion that from a purely financial point of view it would be better to purchase the cattle, destroy them at once, hand the meat back for consumption and

dispose of the hide than to face the capital and current costs of conversion into by-products. This would at least restrict the possibility of loss to relatively low proportions, though on the other hand it would have a much more unfavourable influence on the attitude of natives to the scheme.

419. It is obvious, too, that on the proposed scale of operations a single factory could exercise no appreciable effect on the overstocking problem. With a natural increase approaching 300,000 head per annum it would need a large number of plants of a capacity of 10,000 head per annum to stem the tide of the natural increase and still more to effect any appreciable reduction in the degree of overstocking.

420. Notwithstanding these arguments, we are prepared to support the establishment and operation of a factory, as a means of acquiring actual knowledge on the working of the scheme. It has been suggested that better results might accrue from the entry of private firms into the business. While in the past some private firms might have been willing to commence operations under adequate safeguards as to supplies we consider it highly improbable that such would be the case to-day. The experience of Mwanza Meat Products, Limited., confirms us in this view.

421. We also urge the importance of taking immediate steps Land Commission Report. to give effect to the recommendations of the Land Commission, which are summarized in (a) to (e) and (g) of paragraph 2040 of their Report, and which are reproduced below :—

- (a) That education and propaganda in the economic use of land and stock in the native reserves be pressed forward as widely and intensively as possible.
- (b) That measures be taken to correlate the stock to the available grazing in the native areas.
- (c) That the question of allowing freer movement of stock by relaxation of the quarantine regulations, and the provision of stock routes, be investigated.
- (d) That the imposition of a stock tax as early as circumstances permit be considered.
- (e) That the principle of compulsion in reducing the numbers of stock in areas in which the land is being devastated by overstocking be accepted, and that the provisions of the Crop Production and Live Stock Ordinance be put into force in those areas as soon as practicable.
- (g) That regulations be made to control the grazing of sheep and goats, and restrict them to certain areas in which they are unlikely to cause serious damage to the land."

Fertilizer
factory.

422. With reference to recommendation (f) :—

"(f) That immediate steps be taken for the establishment of fertilizer factories, either by a public utility company or directly by Government, in such places as are deemed to be necessary"

we have recorded our view in paragraph 420 above.

Squatter stock.

423. With reference to recommendation (h) :—

"(h) That steps be taken to limit the numbers of squatter stock to the actual requirements of the resident labourers"

we have taken no evidence on this subject, which is under consideration by a special Committee.

Tsetse Fly
control.

424. The pressure of cattle population on the land might be staved off to some extent and for some time by the eradication of the tsetse fly from infested areas. In some areas the presence of the fly is an effective barrier to accelerated development and sometimes a menace to human life. The Veterinary Entomologist urges the importance of research and control measures and states that whereas in Kenya the fly (*Glossina palpalis*) transmitting human trypanosomiasis is confined to a small area in the Kavirondo Reserve, the species infecting domestic stock infest not less, and probably very much more, than 30,000 square miles. Fly belts in some areas are advancing and new infested foci have been found; areas at one time believed to have been free from fly have been shown to be heavily infested. A species of fly previously unknown in Kenya, which is capable of transmitting trypanosomiasis to man as well as live stock, now inhabits some 700 square miles of grazing land in the Narok administrative area. This area, Osero, was grazed by large herds and flocks in 1914, but to-day is, in common with parts of Trans Mara and Siria, unoccupied and devoid of stock. In the Sabukia Valley and the Ol Arabel Valley in Laikipia are fly-infested areas adjoining alienated stock farms. From alienated areas in the Thika and Fort Hall districts, in Kisii and on the Coast, losses in cattle have occurred.

425. It is suggested that additional staff should be engaged to prosecute research and field control. As far as research is concerned, it might be possible to secure financial assistance from the Colonial Development Fund, from which an appropriation has recently been made for experimental work on *Glossina pallidipes* in the Lambwe Valley.

Conclusion.

426. The seriousness of the position has also been stressed by administrative officers and admits of no doubt. We agree with

the conclusions reached in paragraphs 2019 to 2021 of the Land Commission Report, which read as follows :—

"2019. Bush clearing for the eradication of fly would do much to ease the overstocking problem, would render available further extensive areas of grazing, and so enable other parts of the reserves to be rested.

2020. We recommend that an extensive campaign for the clearing of the fly-infested areas be undertaken and that the measures which, we understand, have met with considerable success in Tanganyika Territory, be studied.

2021. Bush clearing, apart from the question of "fly" is also most necessary in many of the reserves in order to improve and increase the available grazing. We have seen that thorn scrub is rapidly spreading over many areas which were a few years previously open grassy plains, but which are now practically devoid of grass and useless for depasturing cattle. Figures quoted in Appendix No. 11 show that very substantial results could be obtained even by a comparatively small labour force, if the effort is conducted and organized."

427. A proposal was placed before us by the Chief Veterinary Export of Research Officer that the market in West African Colonies, frozen Palestine, etc., for frozen carcases should be investigated. The following eleven paragraphs are taken from a memorandum which he placed before us.

428. "Of the Crown Colonies in Africa, several are large importers of live cattle, sheep and goats, for slaughter. The Gold Coast annually imports meat and meat products to the value of more than half a million pounds. (Colonial Office Report, Miscellaneous No. 436, 1933). The actual figures for the year 1932 are :—

Preserved (canned) meat	...	...	...	£190,407
Chilled and frozen meat	...	...	...	£21,948
Live cattle, sheep and goats	...	...	...	£350,044

429. "The live animals are practically all imported from French territory (Sudan Volta, exceptionally the Ivory Coast and French Guinea), and the French Colonial authorities are fully alive to the economic importance of trade to the French West African Colonies. It is interesting to see in a recent publication a very comprehensive discussion by the Chief Veterinary Officer of the French Sudan of the problems connected with this trade. The article concludes significantly with a list of matters, such as limitation of export to animals vaccinated against rinderpest, simplification of taxation, definition of stock routes, organization of recognized co-operative

export societies, all of which it is suggested should be dealt with by convention or agreement with the Gold Coast Government. In reviewing the importations of the last four years the author expresses his belief that the live import trade has maintained its position in spite of the fears of a reduction that were aroused by the "Buy British" posters that one sees everywhere displayed.

430. "The import tax on live cattle entering the Gold Coast is 6/6d. per head, taxes in French Territory plus incidental expenses of the long journey are said to amount to a further 55 francs, or roughly 12/6d. at to-day's exchange rate. The price at which the dealer buys the animal from the breeder in the Sudan is given as approximately 100 francs, or roughly Sh. 24. This puts the total cost of an animal on entry into the Gold Coast at about Sh. 43; and the dealer has then to take a profit. It must be emphasized that we are dealing with cattle of the same class as those in the pastoral reserves of Kenya, and that in view of the long over-land journey these French cattle have to make, it is probable that during a great part of the year they are poor in condition. There is little doubt that a coastal factory in Kenya could, by judicious arrangement of supplies for the year, manage to kill only cattle in good or fair condition; and freezing, it is to be remembered, definitely improves the palatability of a poor quality tough carcase.

431. "Other importing Colonies on the West Coast are Sierra Leone—20,000 head annually from French Guinea, and Nigeria, about 60,000 head from adjoining French territories. Palestine imports animals and animal products to the value of £610,000 per annum, and the Straits Settlements annually import animals to the value of over £400,000.

432. "All these territories, except the Straits Settlements, could be supplied by a steamship service via the Cape, and there are suitably equipped British and Italian lines on this route. It would be necessary to have a small cold store at one, or possibly two, main centres on the West Coast from which meat could be distributed to markets.

433. "In attempting to estimate the return per head of cattle slaughtered, it is necessary to give careful consideration to the possibilities of by-products as a source of revenue. In the operation of a large unit such as the one contemplated, the organization of this side of production is commonly the deciding factor in determining financial success or failure. The poorest carcases (culls) may be rendered into extract, slightly better ones packed as boneless beef for freezing, and higher grades frozen as sides or quarters. Of the by-products, the most important are manure, tankage feed

stuffs (meat and bone meal), edible and inedible tallow, hides, horns and hooves, tendons, catgut and sausage casings. Offal may be frozen in boxes and sold on the European or Colonial markets. It is also profitable to ship to England glands and offal for the manufacture of organic extracts, for which there is a large sale. The extracts are simple to manufacture, and, alternatively, they might be locally produced in a laboratory at the cooler temperatures of the Highlands.

434. "As an example of the profit to be made out of glandular extracts it is worth while instancing the price of liver extract to-day in Nairobi. This extract, which is universally used in the treatment of pernicious anaemia, sprue and other diseases, retails at the equivalent of Sh. 7 per pound of original liver; the cost of reagents used during the manufacturing process is almost negligible, as we know from actual experience at Kabete. The situation is much the same in the case of several other organic extracts for which there is a good demand, e.g. insulin, thyroid extract, pituitary extract, spleen extract.

435. "It might be pointed out that the moving-table system of carcase dressing, as used in Chicago and elsewhere, lends itself readily to the employment of unskilled labour. Each task is a simple one, readily learned and adequate speed in operation is soon attained.

436. "It is probable that once an export trade in low-class native meat has been established, an opportunity will arise to export better class fat carcases from European farms under the same organization. Both the Gold Coast and Palestine take a considerable quantity of this type of meat.

437. "In view of the nature of the agreements made at Ottawa, there should be no difficulty in arranging for some form of preference with the Colonies concerned, either in the shape of reduction of tariffs or in the allocation of definite annual quotas to this Colony at the expense of foreign exporters. The fact that the frozen meat would be subjected to inspection would weigh heavily in our favour with medical authorities.

438. "No mention has been made of the possibility of exporting native mutton and goat meat, but it will be obvious that the same markets are available for these products if it is found that prices warrant such an undertaking."

439. We discussed this proposal with the Chief Veterinary Research Research Officer. We understand that correspondence with persons resident in certain West African Colonies has tended to support its

feasibility. On the other hand we should have thought that South Africa, the Mandated Territory of South-West Africa and Southern Rhodesia would have been in a much more favourable position to meet any effective demand. We are informed that some years ago attempts were made to establish an export trade in meat from the South-West African Mandated Territory but that the difficulties encountered proved insuperable.

Enquiry recommended.

440. Nevertheless there appears to be definite evidence that a market actually exists in parts of West Africa. If such a market were developed from Kenya other areas would no doubt follow and it therefore appears necessary that before any further move is made inquiries should be addressed by Government to the other Governments concerned as to the possibility of securing an arrangement under which this Colony would be guaranteed a certain proportion of the market for a term of years. We recommend that steps be taken by Government along these lines.

(C) THE ORGANIZATION OF NATIVE MARKETING.

441. This subject will be dealt with under three heads :—

- (a) Native markets.
- (b) Present methods of marketing native produce.
- (c) Proposed organization of the marketing of native produce.

(a) NATIVE MARKETS.

442. In some of the native areas markets existed long before the arrival of Government. They were held, as at present, in open spaces specially set aside for the purpose. All transactions were by barter, and the kinds of produce sold were cattle, sheep, and goats, bananas, cereal foods of various kinds, red earth, etc.

443. Some of these markets have persisted in the Kikuyu and Nyanza Provinces until the present time while a considerable number have been added within recent years. They have undergone little or no change in their essential features except that cash and barter are practised side by side and shops have been established owned entirely by native traders, at which tea, coffee, sugar, blankets, cloth, paraffin, beads, etc., are sold.

444. Since in the organization of these markets Government has played little part, what development has occurred is due almost entirely to the efforts of the natives themselves. In Kikuyu and elsewhere the land on which markets have been established is communally owned. In the Kavirondo country some of the markets are owned by chiefs who collect the fees from the stallholders and

devote some of the proceeds to improvements. The objections to this latter system are obvious, as improvements must depend to a large extent on the individual initiative and enterprise of the chief concerned. For instance in one market (North Maragoli) of the North Kavirondo district, several brick buildings have been erected by the chief concerned. Elsewhere the markets consisted of a number of rather neglected *bandas*. In one market arrangements have been made by the members of a co-operative group with the Asiatic Petroleum Company for consignments of fifty tins of paraffin to be sent to the market at much reduced prices, and these are distributed direct by the agent to the natives in the group.

445. At many of these markets cattle are slaughtered on market days and the meat sold to the native public. At Mchakuthi in the Embu district, as many as six to ten beasts are slaughtered in a day. A hide *banda* for the shade-drying of hides has been erected in this market. Shade-drying hide *bandas* are also being established at markets and social centres in the Machakos and Kitui districts and are a feature of the markets in the Nyanza Province.

(b) PRESENT METHODS OF MARKETING NATIVE PRODUCE, FOR REMOVAL FROM THE NATIVE RESERVES.

446. In addition to the native markets proper native produce, especially that intended for export, from the native reserves concerned or from the country, is brought by natives direct to the Indian trade-centres. This is the practice in regard to maize, beans, groundnuts, simsim, cotton, etc. Here the produce is sold to the various shopkeepers many of whom are engaged in both produce buying and retail selling trade and make their profit in both ways. In the former trade they are the agents or employees of producing-buying firms in the large towns; in the latter, they trade as retailers on their own account, or similarly as agents for the larger firms.

447. Native produce markets on the lines of those established in Tanganyika Territory do not yet exist in Kenya. In Tanganyika Territory there are native produce markets consisting of enclosed areas, usually at some distance from the trade centres, round which stalls have been grouped, with an Avery platform weighing machine in the centre. Stall holders can purchase the particular produce for which the market has been established from the native producers who crowd to the market and no retail selling of shop goods is allowed, as this is confined to the shops in the trade centres. Native producers can have their produce weighed on the weighing machine provided by the native administration or alternatively, on the scales kept by the stallholders.

448. Traders wishing to purchase produce in these markets hire a stall for the purpose, and many such practise this business either on their own account or as agents of wholesale firms. No produce of the variety specified can be purchased at the shops in the trade centres.

449. The effect of the Tanganyika system is to separate entirely the buying trade in specified forms of produce from the retail trade at the shops, and in this respect the native markets differ from the old-established markets in this country as no produce other than the particular variety or varieties for which the market has been established can be sold.

All transactions are for cash and no barter is allowed.

(c) PROPOSED ORGANIZATION OF NATIVE MARKETING.

The Mwanza Conference.

450. At a Conference of the Advisers on Native Affairs held at Mwanza during August last, the question of native production and marketing was fully examined. The following are extracts from the Report :—

“28. As we understand the real objects of organized marketing, they might be stated as follows :—

- (1) To facilitate the export of produce up to specific standards of quality and purity so as to gain the confidence of overseas buyers, and wherever possible to establish recognized marks for standard products, and by these means to obtain a secure place in world markets.
- (2) To prevent adulteration, either by grower or buyer, short weight, bad packing, and so on.
- (3) To ensure payment for produce in cash.
- (4) To make price depend on quality as far as possible.
- (5) To stabilize trade in produce by making it independent of the small retail shopkeeper, who may often be in financial difficulties and temporarily unable to buy for cash, and, as far as possible, to ensure against temporary local panics or dislocations in buying arrangements.
- (6) To reduce transport costs by concentrating produce in bulk at fewer centres.
- (7) To provide specialized marketing arrangements in the special cases where they are needed, either on the introduction of a new crop or to meet some particular requirement of the overseas buyer.

(8) In the case of stock markets, to ensure co-ordination with measures for the prevention of disease, so that stock may be marketed as freely and cheaply as possible, consistent with reasonable security from the spread of disease.”

“30. It appears to us to be necessary to organize the marketing of produce in such a way as to separate it completely, and as soon as possible, from the business of retail shop-keeping. We recognize the invaluable services to the spread of trade which have been rendered by the small Indian shop-keeper, and that he is essential to the economic life of these countries as a distributor of goods; but, except in remote areas or where the quantity of produce is insignificant, we cannot see how the objects which we think ought to be aimed at can be attained until this separation has been effected. The shop-keeper must adjust himself to making his living by his proper function, and must reconcile himself to elimination from the produce trade; in a comparatively short time he will be the gainer thereby for his existence depends on the prosperity of the native peasant, and that cannot fail to increase with bulk marketing of graded standard produce.”

“35. Many types of marketing organization are in existence, including at least one union of co-operative societies, and various forms of associations for the purpose are being discussed. We advise that as a general rule the principles to be followed should be that Government and native authorities should not take a direct part in the business side of marketing, and particularly should not become engaged in the very speculative business of buying and selling produce, although we recognize that in exceptional cases State intervention may be justifiable in the interests of economically backward producers. Any arrangements which are made should be on a commercial basis from the outset, and subsidies, direct or concealed, should be avoided. If in any case a subsidy is considered to be justified, it is preferable to give it in the form of a definite subvention of a specific amount for a particular purpose. Above all, any attempt to bolster up a falling market or to raise prices above what world prices and necessary marketing costs justify should never be permitted.”

“Further arguments for organized marketing which have been fully proved in Tanganyika Territory, are as follows :—

- (a) It is bound to ensure the greatest good of the greatest number, i.e. the African producers.
- (b) It enables the wholesale trade to be handled by wholesalers and retail trade by the retailers.

- (c) It ensures the accurate weighing of produce, e.g. an indispensable accessory to a central market is an accurate English weighing machine owned by the native administration which compels the stall traders to keep weighing machines of similar accuracy.
- (d) It makes it possible to insist on quality and to inculcate the value of quality among the growers, and tends to check adulteration.
- (e) It stimulates economic independence in the grower and appreciation of the value of his produce.
- (f) It obviates money-lending by weakening the borrowers' security, for the peasant can get cash for his crops at any market and is therefore a more difficult person for the money-lender to control."

The Kenya system.

451. It is obvious to us that the Kenya system under which the marketing of native produce is conducted in the trade centres cannot result in the best price either for the native producer or the Indian trader. There is waste in transport and increased cost in overheads; the trade is dispersed among a large number of traders instead of being concentrated in the hands of a few; for the same reason there is no insistence on quality as against quantity. How can these defects in the present system be removed? Means must be devised of organizing marketing in Kenya in such a way as to make use of present institutions without riding rough-shod over native customs and ideas or inflicting avoidable hardships on trading interests. It is axiomatic that the existing markets in native reserves must continue as before. They serve a very useful purpose, and, as control becomes more efficient, with the passing of market rules by Local Native Councils, they will fill an even greater place in the life of the people than they do at present. As mentioned above in the Kavirondo Reserves, the killing of beasts to provide meat for the requirements of the people is a regular feature on all market days, and has in itself solved the problem of overstocking in these areas. A similar tendency, though less pronounced, is noticeable in the Kikuyu Reserves. These native markets must, however, continue to serve their present purpose, viz., as a centre for the buying of produce for local consumption.

Produce for export.

452. Produce intended for export outside the district must, in our opinion, receive different treatment. The varieties that may be classified under this head are as follows :—

Wattle bark.	Hides.
Maize.	Beans.
Cotton.	Cashew nuts.
Groundnuts.	Dairy products.
Simsim.	

We consider that the object must be to centralize the marketing of these products so that they can be (a) accurately weighed; (b) adequately inspected to maintain quality; (c) efficiently transported at the minimum cost. If all these objects can be effectively achieved, it is clear that both the native producer and the trader will receive the maximum benefit.

453. To deal with wattle bark in the Kikuyu Reserves, go-Wattle bark. down have been built at various railheads at which the produce can be both stored and inspected. But all wattle bark is not brought to these go-downs. Certain traders purchase the bark in the reserves and transport it to the railway in lorries. Inspection is carried out by native inspectors of the Agricultural Department, but owing to the absence of any form of centralization adequate weighing or standards of quality cannot be ensured. Some kind of centralized marketing for this produce is therefore necessary. When it is remembered that the annual value of this industry is in the neighbourhood of £100,000 of which 75 per cent is native, the importance of organized marketing need not be emphasized.

454. A system that some advocate for the marketing of this produce is what is known in Tanganyika Territory as the "Advance auction system." Auction System" under which the successful bidder of the price to be paid for a certain produce is entitled to buy all consignments of that product brought to market during a given period at the price tendered. This system, by putting the trade in the hands of the successful bidder, ensures through the resulting reduction of overheads that the producer is given the maximum value for his produce and facilitates the maintenance of good quality and good price.

An alternative system is the one described in paragraph 447 under which competition is unrestricted.

455. In the case of cotton and cashew nuts, industries which in certain areas are in the early stages and require to be established, the system of exclusive licences, under which the right to purchase all the produce in a given area is given to one applicant, is the one most productive of success. It is already the system practised both in the Coast and in the Nyanza Provinces, but a recent opinion given by the Attorney General has caused doubts to arise as to its legality under the present law. Under the proposed legislation such licences will be legalized.

456. A similar system should be introduced for hides; especially Hides. shade-dried hides. Rules under the Crop Production and Live Stock Ordinance, under which no hides other than shade-dried hides can be sold within a radius of 5 miles of a shade-drying *banda*, have

been issued in the Machakos District. It is understood that they have been successful but it is doubtful whether their success can be complete unless the purchase of these hides is centralized in the hands of a limited number of competing traders whose interest it will be to pay an economic price to the native and to maintain a high standard of quality.

Other commodities.

457. In areas, however, where a variety of economic produce has been well established, e.g. cotton in the North Kavirondo and Central Kavirondo Reserves, exclusive licences are not necessary; and it will suffice to establish markets for the purchase of cotton, and possibly groundnuts, and simsim, on the lines described in paragraph 447.

458. The system of native marketing outlined in paragraph 447 under which the only conditions of trade are that—

- (a) the purchaser of the produce must be a stall-holder in the market;
- (b) he cannot retail goods there;
- (c) he must confine himself to the purchase of the produce or varieties of produce for which the market has been erected;

is suitable for the marketing of produce which has been already established in the economic life of the district. The institution of such markets in the Nyanza Province and elsewhere in Kenya where they are required will be a valuable step in the promotion of trade on the lines most beneficial both to the native producers and the trading interests.

Stock.

459. For the promotion of the stock trade, marketing of stock by a system of auctions held in the stock areas on certain fixed dates at which purchase for cash only is allowed, will be most helpful to the native stock-owner. At present in many areas such as the Masai and Suk Reserves and the Northern Frontier District, cattle are unsaleable owing to quarantine regulations. It is thought that means might be devised for the auction sales to be controlled by a veterinary officer, who would immunize the cattle sold against the disease prevailing in the reserve concerned and free them for removal from the district. Such a system would enable the natives concerned to get cash for their requirements.

Summary and conclusion.

460. To summarize the arguments put forward above, the organization of native marketing with a view to the maximum and most profitable development of the native agricultural industries is an imperative necessity for the welfare of the whole community. With good will, understanding and determination, a way can be found through the forest of difficulties which have hitherto impeded the achievement of this purpose.

461. We trust that action along the lines described above will help materially in the solution of these difficulties and we support in principle the introduction of legislation to secure organized marketing in the native reserves on the lines indicated.

(D) NATIVE CO-OPERATIVE SUPPLY SOCIETIES.

462. It has been represented to us that trade with natives is reduced by the inability of natives to bridge the gap between the reserves and wholesale centres. It has been urged that Indian stores are limited to trading centres; often some distance from particular portions of a reserve; and that these stores carry a stock assortment of cheap goods and play no part in displaying to natives the large variety of articles which are obtainable in places like Nairobi.

463. Natives on the other hand may open shops in any portion of the reserves, and considerable numbers are doing so. They are hampered, however, by the fact that lack of cash resources prevents their purchasing from Nairobi or other centres; they can only buy in small quantities at less favourable prices and add an increment to the price of the goods to cover expenses and provide a margin of profit.

464. The native is generally unable to appear in person in the town to purchase his supplies, and he is normally unable to order by post. It is suggested that this disability and lack of individual cash resources might be got over by forming a co-operative society as an intermediary between wholesale traders and native shopkeepers; the society would be formed of representatives of wholesale firms, and would maintain a go-down in which stocks would be held for sale on cash terms.

465. We do not think this scheme as it stands would prove successful. The view of commercial representatives is that the ordinary conditions of business would prevent the co-operation of wholesale firms in the manner suggested. If it were proposed instead to form a co-operative association of native shopkeepers for wholesale purchase there would appear to be greater chance of success, but we are of opinion that no form of co-operation presents greater difficulties than co-operative purchase, and we think that it would be well for natives to acquire a working knowledge of the simple forms such as co-operative marketing before embarking upon the more difficult forms. Expert supervision of native co-operative schemes has been proved in other countries to be absolutely essential. We suggest that this matter be brought under review by the Native Marketing Advisory Council.

VI.—GENERAL.

LAND BANK FINANCE.

466. In our review of the Colony's loan position (Chapter II (B)) we have referred to the sphere of operation of the Land Bank and to the financial implications involved. We have there shown that the present authorized capital of the Land Bank is £500,000 of which £240,000 was borrowed by the Colony in London in 1930 and £260,000 in 1933. We have also shown that of all the money borrowed by the Colony, the funds borrowed for investment in the Land Bank are the only funds directly associated with production on the land.

Increase in capital.

467. We have now to consider whether a case exists for recommending an increase in the capital of the Land Bank and, if it does, what steps can be taken to secure such increase.

468. The Land Bank was brought into being to meet the demand from agriculturists for cheaper money on easier terms than were previously available. The terms of the Land Bank Ordinance naturally restrict applications to those whose circumstances fall within the provisions of the Ordinance, and there is no information upon which to base an opinion as to the legitimate demand for finance outside those limitations.

Applications approved.

469. The following table shows the proportion of applications received :—

	RECEIVED		APPROVED	
	No.	£	No.	£
1931, June—December	256	417,300	90	121,750
1932, January—June	119	167,105	91	116,250
1933, March—December	239	393,526	147	187,250
	614	£977,931	328	£425,250

470. These figures are subject to adjustment in respect of subsequent modifications, e.g. offers declined, increased or reduced. It will be seen that roughly 50 per cent of the demand for finance has been rejected by the Land Bank Board. Of these rejections by far the largest proportion represents applications which in the opinion of the Board involve a business risk in excess of that permitted by the Ordinance. Applications failing in other respects, e.g. the personal factor, are almost negligible.

471. One of the chief difficulties confronting the Land Bank Prior mortgages. is to deal with the existing mortgage position of farmers. It is clear that with the restricted funds at their disposal the Land Bank Board cannot as a matter of initial policy set out to redeem all existing mortgages and it would in our opinion be quite wrong for Land Bank finance suddenly to take so prominent a position in the economic life of the Colony as such an expansion of its activities would imply. The immense advantage to the applicant of converting an ordinary mortgage to a Land Bank long credit, with its accompanying security of tenure, is recognized but it is desirable that the intrusion of Land Bank operations into that section of the money market which deals with agricultural mortgages should be gradual and that advances for the purposes of discharging existing mortgages should bear some reasonable ratio to advances made for development purposes.

472. It is also necessary to emphasize the character of the ^{The Land Bank a} proposition. Land Bank as a Colony investment. The administration of the business funds placed at the disposal of the Land Bank lies in the hands of a Board whose duty it is to deal with applications for loans in a sound and business-like manner. The Land Bank is not established as a relief measure and the Board must judge applications on the basis of the security offered in precisely the same way as any other financial house. Applications which appear to the Board to fall outside the limits of the business risk which the Land Bank may take will inevitably be rejected.

473. But even within the limits of sound business risks the ^{Limits to advances.} Board, in exercising their functions, have certain limitations imposed upon them by law. These apply particularly to the monetary limit of £3,000 imposed on an advance to any one farmer and to the limit of £2,000 placed on an advance for discharging an onerous mortgage of prior date. These limits have been the subject of criticism particularly because they are not considered high enough to enable the Land Bank to deal with many sound applications from farmers engaged in the coffee or sisal industries and the importance of these industries to the Colony is held to justify the selection of limits sufficiently high to enable the Board to deal with applications of this kind.

474. The information placed before us tends to show that if the existing limits are retained, the rate at which the Land Bank might be able to approve further loans, given additional capital,

would probably be slow. Evidence on this matter is, however, difficult to obtain. Applications received during the first seven months of this year are as follows :—

January	17	£25,400
February	20	32,800
March	22	24,500
April	17	23,300
May	10	11,050
June	10	12,420
July	9	11,050
	105	£140,520

But such figures compared with those in paragraph 469 are not conclusive evidence of a fall in the rate of demand because, as the limitations of the Ordinance become better known, the number of applications lying outside the scope of the Land Bank naturally falls off. Our opinion is, however, that if additional funds are to be made available to the Land Bank the monetary limits to advances should also be raised. We regard these two aspects of the matter as interconnected. We do not recommend any increase in the limits unless the Land Bank capital is increased, and we recommend that, if the Land Bank capital is increased, the limits should be raised.

Recommendation regarding limits.

475. Our recommendation in regard to new limits is that any increase in Land Bank capital should be accompanied by amendments to the Ordinance raising to £5,000 the limit for an advance to any one farmer (section 27 (3) of the Ordinance) and to £3,500 the limit for an advance for the purpose of discharging an onerous mortgage of prior date (section 25 (3)).

"Onerous" mortgages.

476. We do not recommend any further modification in the terms of the Ordinance relating to the limitations imposed upon the granting of loans to farmers. It has been suggested to us that section 25 (3) should be amended by the deletion of the words "if such mortgage is in the opinion of the Board onerous." In favour of this amendment it is urged that any mortgage is onerous compared with the gradual liquidation of capital and interest without fear of foreclosure as offered by the Land Bank and that it is inequitable that a farmer whose mortgage is not regarded as onerous should be debarred from assistance. We do not agree with this view. Unless the Land Bank Board are satisfied that a mortgage is onerous we see no reason why Land Bank funds should be used to buy out a prior mortgage. The private mortgagee has a

very important function to perform in this Colony and we consider that the Colony as a whole would suffer if the Land Bank was empowered at this stage to interfere in a mortgage transaction the terms of which, in all the circumstances of the case, were in no way onerous. Whether a mortgage is onerous or not depends on a number of factors in the assessment of which the Board have considerable experience and the present law which requires them to examine every application entailing the discharge of a prior mortgage from this point of view is in our opinion best suited to the case and in accordance with proper Land Bank practice. Our view on this matter applies whatever may be the monetary limits placed on advances.

477. Assuming that the limits are to be raised to £5,000 for ^{Use for further capital.} advances to farmers and £3,500 for the discharge of prior mortgages, we are informed that the Land Bank Board consider that they would be in a position to place a further sum of £500,000 in advances within the next two or three years. This opinion also takes into account the fact that by the amending Ordinance of 1934 (No. 4 of 1934) the Board have been empowered to grant short term loans for farming operations generally and to make loans to co-operative societies, these latter advances not being subject to the limitations regarding amount applicable to loans to individual farmers.

478. From the point of view of the Land Bank an increase ^{Advantages of increased capital.} in capital which could be profitably placed in sound propositions would bring additional advantages. Administrative expenses include headquarter costs and the costs of inspections. Headquarter costs are subject to the minimum required for the basic staff necessary to the operation of a Land Bank however small the capital may be and this basic staff would need relatively little strengthening on an increase in the capital from £500,000 to £1,000,000. The percentage of headquarters cost to capital would therefore be reduced by nearly one-half. Costs of inspection might be expected to increase but the increase would not be in proportion to the increase in capital; a tour of inspection would, in many cases, cover more properties. With a capital of £1,000,000 the proportionate saving in working expenses plus the increased earnings of the bank due to the larger turnover, would provide a considerable margin, enabling the Bank more rapidly to build up an adequate reserve fund and at the earliest possible moment to consider the question of a reduction in the rate of interest charged to mortgagors, a step which would be of great advantage to the community as a whole and which would be greatly accelerated by the provision of additional capital. From these points of view, therefore, an increase in the capital of the Land Bank is obviously desirable.

479. But we have also to consider the matter from the stand-point of the Colony as a whole, both in the effect of enlarging the scope of the Land Bank operations and in relation to the Colony's position as a borrower having regard to the existing loan commitments.

Effects of increasing Land Bank capital.

480. The effects of introducing fresh capital for agricultural development are distributed directly and indirectly throughout the whole structure of the Colony. They are reflected directly in such items as native wages, salaries, purchase of implements and machinery, road and rail transport and port charges; and indirectly in taxation receipts, customs revenue, licences, appreciation of land values and so on. The introduction of fresh Land Bank capital also tends to lower interest rates on ordinary mortgages and has a valuable psychological effect by helping to stabilize agricultural conditions through the removal from a number of producers of the feeling of insecurity which accompanies short-term financial facilities. Land Bank facilities, therefore, have a generally beneficial effect on the community; the Land Bank cannot be regarded solely as a measure of assistance to one section of the community at the expense of the rest of the community.

The Land Bank as an investment.

481. The establishment of the Land and Agricultural Bank in Kenya is practical evidence of the Government's confidence in the future of the Colony and the funds provided for Land Bank purposes constitute an investment. So long as the Land Bank pays interest on the capital provided the only charges falling on general revenue are the annual contributions to the sinking fund, that is to say, the annual amount set aside for investment in the Land Bank. As an offset to those annual contributions revenue is derived from the increased output, increased turnover, and increased commercial activity which must follow the further development made possible by Land Bank money.

482. Provided, therefore, that the Board of the Land Bank handle their investments in a businesslike manner—and we have no doubt as to their ability to do this—a public loan utilized for Land Bank purposes is in our opinion amply justified. It is an investment, not an expense.

Recommendations.

483. We therefore express the view that it is desirable that the capital of the Land Bank should be increased by £500,000 from the present figure of £500,000 to a figure of £1,000,000 and recommend that steps be taken to secure approval to further borrowing powers for this purpose. This recommendation is accompanied by and contingent upon the recommendation already mentioned that on an increase in the capital of the Land Bank the limit for

an advance to any one farmer should be raised to £5,000 and the limit for an advance for discharging an onerous mortgage of prior date should be raised to £3,500.

484. As noted in paragraph 65 of this Report, the capital Undrawn hitherto made available to the Land Bank has been issued as required by the Bank, with the result that the Bank becomes liable to pay interest charges to the Colony only when it draws the money for investment in a Land Bank mortgage. This arrangement has been of assistance to the Bank inasmuch as, until the money is actually issued to the Bank, the Bank incurs no expense in connection with it, the difference between the interest paid on the Colonial loan and the interest earned on the undrawn money falling to be met from general revenue.

485. We have considered whether this facility should be applied also to new capital provided for Land Bank purposes and have come to the conclusion that it should so apply but in a modified form. In its infancy, the Land Bank looks to the Government for all reasonable assistance in establishing its business. We are of the opinion that the issue of the new capital to the Land Bank as and when required by the Bank is a facility which might reasonably continue to be extended to the Land Bank. The present uncertainty surrounding agricultural enterprises renders the early compilation of an adequate reserve fund a matter of prime importance and it is clear that if the burden of interest charges on unused money is thrown upon the Land Bank the compilation of an adequate reserve fund must be delayed. Furthermore, if the Land Bank were to be called upon to meet interest charges on idle money, a desire would be created on the part of the Land Bank Board to secure its investment at the earliest possible moment, which might not prove to be wholly compatible with the cautious policy pursued by the Land Bank.

486. For these reasons we recommend that on an increase in the capital of the Land Bank the arrangements hitherto in force whereby the Land Bank draws money from authorized capital as required and pays interest only on the money so drawn should continue to apply, but in order to safeguard the interests of general revenue we suggest that Government should charge the Bank interest at the rate of $\frac{1}{2}$ per cent above the rate of interest which Government itself pays for the money until any expense incurred on this account has been reimbursed.

487. The Land and Agricultural Bank Ordinance, 1931, provides in section 32 that "The Board may from time to time with the approval of the Governor in Council increase or reduce the rate

of interest payable on advances made out of the funds of the Bank : Provided that no alteration shall be made to the rate of interest on advances already made . . ." This proviso would in our opinion apply equitably to increases in the rate of interest ; but in the event of a reduction in the rate of interest being found possible we consider that it would be preferable to make a small decrease in the rate of interest charged over all Land Bank mortgages rather than to maintain the previous rate for previous mortgages and apply the lower rate only to subsequent mortgages.

Possibility of raising money locally.

488. In connection with the recommendation we have made for an increase in Land Bank capital, we consider that the possibility of raising money locally should be closely examined. We have had evidence of the existence in the Colony of money awaiting investment though witnesses differ in their estimates as to its amount. We have not investigated this matter in detail ourselves because such examination can only usefully be undertaken at the time when proposals to float a loan are mature, and because the investigations themselves must necessarily be conducted with an element of secrecy particularly in regard to the terms of the prospectus. We express no opinion as to the rate of interest at which money might be obtained locally for an investment on Government security beyond saying that unless such rate is reasonably close to the rate obtainable in London the advantage of floating a loan locally rather than in London must be largely negatived ; but we consider that these matters should be fully investigated in connection with any further loans that the Colony may be empowered to raise and that full opportunity should be given to local investors to subscribe. The advantages to the Colony of borrowing money locally rather than overseas are considerable provided the terms of the loan are similar, and apart from this, we consider that great benefit would ensue from a step which would provide the public with a long-term Government security in this Colony in which those who are looking for secure investments at comparatively low rates of interest could invest their savings locally instead of sending them overseas.

Bearer Bonds.

489. Proposals have been placed before us for a wider measure of State intervention in agricultural finance. The proposals vary in detail but the general idea under-lying them is that the Government, or the Land Bank under Government guarantee, should undertake the conversion of existing agricultural mortgages and charges on land at the instance of either the mortgagor or the mortgagee, issuing bearer bonds to the mortgagee against transfer of the mortgage to the Government or the Land Bank.

490. Our views on these proposals are based on the following considerations:

Mortgages are contracts between the mortgagor and the mortgagee, the consideration involved being understood between them and terms laid down varying. We are opposed in principle to the State assuming any financial liability in respect of such contracts without individual examination of the terms and assessment of the business risk involved. This is the method under present operation by the Land Bank and we consider it to be the only sound method.

Secondly, it is clear that the issue of bearer bonds defeats its own purpose unless such bonds are fully negotiable and they cannot be fully negotiable unless they are redeemable. They cannot be redeemable unless there is an assurance that the necessary funds will be forthcoming at due date. No such assurance could be given without the acquisition of potential borrowing powers covering the whole issue which, according to the figures given to us, might amount to between £4,000,000 and £5,000,000. We regard this as out of the question.

Thirdly, a scheme of this kind would completely upset the local investment market, interfering as it would with the normal functions of finance corporations and others who handle farm mortgages. The consequent dislocation of business would do incalculable damage to the economic structure of the Colony.

We are therefore unable to recommend the adoption of any scheme of the kind suggested.

STANDING BOARD OF ECONOMIC DEVELOPMENT.

491. The agricultural and industrial resources of this country are in different stages of development. On the one hand we find industries possessing a record of steady progress and a marked degree of development; on the other, amorphous efforts to start some crop hitherto untried or some industry which may rest on nothing more permanent than the stimulus given by an officer newly posted to a district and shortly to be transferred elsewhere.

492. Kenya is exceedingly fortunate in the successful results that have attended efforts to organize on a representative and business-like footing the principal agricultural industries in which Europeans in this Colony are engaged. The coffee, sisal, maize, sugar, tea, wheat, butter, timber, pyrethrum, essential oils and other industries each possesses an organization watching over its interests and able to present a considered case for examination by the Government where Government action is sought to serve the interests of the industry concerned.

493. But on the Government side there is no body entrusted with the task of considering and advising upon schemes of economic development put forward for the consideration of the Government from time to time whether by particular industries or not, and nobody whose duty it is to anticipate developments in the economic field and tender considered advice as to the initiation of forward measures.

**Consideration
by Government
of schemes of
economic de-
velopment.**

494. Sound advice based on a review of the features of each separate scheme submitted for the consideration of Government in relation not only to the details of that scheme but also to other forms of economic activity in the country is a thing which no Government can afford to do without in present world economic conditions. Advice on such matters must lose much of its value unless there is co-ordination of ideas and continuity of effort. The information on which advice is given must lack essential characteristics unless a body with permanent status is entrusted with the consideration or initiation of such schemes. In no other way can comprehensive and homogeneous advice based upon a deliberate line of economic policy be placed before Government.

**Unorganized
industries.**

495. This applies to matters affecting all industries in the Colony, whether such industries are themselves on an efficient basis of organization or not. A second direction in which we consider that there is need of a Standing Board of Economic Development is concerned primarily with unorganized industries. In almost all the important branches of industry under development by European farmers, representative organizations are in existence able to promote the interests of the industry by direct representations to the railway, shipping firms, or marketing agents. But the organization which we find to exist in the case of industries developed by Europeans has no counterpart in the case of industries carried on by natives. There is no representative organization dealing with hides and skins, wattle bark, cotton, simsim, groundnuts, bees-wax and other industries primarily associated with native production. The interests of these industries are left largely to the automatic working of the commercial and transport system. Produce finds a market as it can; there is no organization of marketing arrangements; there is no body whose duty it is to see that the proceeds of these crops are equitably distributed between producers, middlemen and the transport system or that removable impediments to increased production are brought to light, examined and abated.

496. Native industries require organization, and in the present state of their development that organization can only be effected by Government action. We have been much impressed by the

evidence given to us, as we prosecuted our inquiries, as to the absence of organization on this side of the Colony's industrial activities, a deficiency which is all the more marked because of the high standard of organization achieved in the case of industries under development by Europeans. We feel very strongly that in this matter the machinery of Government requires remodelling and that the acknowledged functions of the Government in relation to production by natives must be extended so as to include in a much more practical and effective form than at present exists an organization which obtains regular information regarding the progress of each such industry, can watch over its interests, and can speak for the industry whenever any questions affecting it arise.

497. We have also been impressed by the lack of co-ordination and direction in the development of these industries themselves. We referred to this matter in paragraphs 139 to 142 of our report and it is scarcely necessary for us to elaborate our arguments here. In the native areas the crops planted and the degree of stimulus applied to the planting of selected crops depends in our opinion much too much on the choice and personality of the officer in charge. In a pastoral area, one officer may choose to develop a dairy industry; he may go to special pains to train the natives under his charge in methods of ghee production, training instructors and using Local Native Council funds to erect dairies for this purpose. His successor may have other ideas. He may hold that dairying can never be a success owing to the nomadic habits of the people and he may obtain confirmation of this view from the technical officer who happens to be in association with him at the time. He may therefore reverse the policy of his predecessor, abandon the dairies, discharge the instructors, and start afresh a policy of development more in tune with his own conceptions.

498. In agricultural districts the opportunities for change in policy are even wider. One officer may encourage the planting of cotton, his successor of simsim, his successor of rice and so on. Each may be actuated by the conviction that the crop he chooses is best suited to the area, which may indeed be well adapted to the cultivation of all these crops. But changes in policy with changes in officers are bewildering and wasteful and no effort can be sustained if the stimulus changes its direction with the all too frequent changes in personnel.

499. The stimulus to production in native areas and continuity of policy in this matter should depend less than it does at present on the individual predilections of the local officers and more upon direction from headquarters in accordance with an economic plan

laid down as a factor in Government policy. We conclude from the evidence given to us that in this respect also the present organization of Government is lacking in the economic field.

**Appointment
of Standing
Board recom-
mended.**

500. With a view to strengthening the machinery of Government in economic matters we recommend that Your Excellency should appoint a Standing Board of Economic Development whose main functions should be :—

- (1) To advise upon proposals placed before Government for economic development whether native or non-native as they arise.
- (2) To watch over and promote the interests of industries under development in native areas.
- (3) To advise upon, obtain information as to the progress of, review, and under general instructions from Your Excellency's Government direct, the lines upon which economic development should be conducted in native areas.

**Initiation
of policy.**

501. Such a Board should, in our opinion, be empowered to initiate lines of policy for the consideration of Government as well as to advise upon matters referred to it. We recommend, for instance, that it should make close investigation of the possibility of increasing settlement and production in the area along the Railway between Nairobi and Mombasa, particularly as development in this area would be the means of greatly improving the distribution of traffic carried by the Railway and reducing transport costs. We recommend, also that the Board should study the possibilities of secondary industries and give publicity to such details as can be compiled as to factory sites, water supply, markets, etc. No proposals regarding secondary industries have been brought before us but there appears to be a field for development, or at least preliminary inquiry, in regard to such industries as :—

Canning : fruit, vegetables and meat.

Leather : shoes and sandals, belting.

Power alcohol from maize, bananas and other products.

Egg and milk preparations.

Rope, string, matting, sacks.

Insecticides.

**Status of the
Board.**

502. The Board would be the principal local source of advice on economic matters having standing in such matters superior to that of any existing Board or Standing Committee entrusted with more specialized duties. As occasion arose, recommendations put

forward by such bodies as the Board of Agriculture or the Native Marketing Advisory Board would be referred to it for consideration from the wider economic aspect which it would represent and deal with. But it would not be an executive body except in so far as the Government of the Colony entrusted it with executive powers. We do not suggest that it should be competent to the Board to incur any expenditure except under authority of the Legislature in the ordinary way. The Board whose appointment we recommend would in no way encroach upon the domain of the Standing Committee on Finance. Any recommendations by the Board of Economic Development involving finance would require consideration by the financial authorities in the same way as any other proposal involving finance.

503. We regard it as important that the Board should be composed of a small number of members chosen so as to enable it to give the best possible advice without reference to political or racial considerations, and that its Chairman should be no less important a member of the Government than the Colonial Secretary himself. The Board should include in its membership a producer and a merchant and in order that a full measure of liaison may be assured between the Standing Board of Economic Development and the Native Betterment Fund Committee when established we recommend that the Chief Native Commissioner should be a member of the Board. We regard it as essential that the office of secretary to the Board should be filled by an officer who should be able to devote his attention very largely to initiating matters for consideration by the Board and acquiring information from relevant sources upon which the Board may be assisted in forming its judgments.

ECONOMIC STATISTICS.

504. In Chapter II of this Report, when dealing with the balance of trade, we referred to the virtual abolition of the Statistical Department which had led to the discontinuance of certain statistical work. We wish to stress the importance of statistical work in the economic sphere, more particularly when, as nowadays, Government is being forced more and more to intervene in economic matters.

505. Even in times of prosperity, no Government charged with the duty of devising ways and means of promoting the welfare of the inhabitants and of gauging the effect of Government policy can properly afford to find itself in a position where information as to the trend, for instance, of monetary transactions is almost entirely lacking. In times of adversity, when everybody is desperately seeking a remedy, the importance of such information is all the more

manifest. The course of economy and retrenchment has in some countries been accompanied by a strengthening of the statistical branches; in Kenya it has been accompanied by their virtual abolition.

The importance of this work is fully emphasized in the report of the Committee on Finance and Industry (the Macmillan Committee) from which we quote the following passage :

"Exact quantitative knowledge concerning the chief elements of the monetary and financial system is, we consider, of the utmost importance, both to provide the necessary data on which to base the management of the system and also for making gradually possible a more definitely scientific treatment of the problems than the existing state of our knowledge of the facts allows. There are, moreover, many matters of importance which are now the subject of controversy, yet need not be so if they could be put to a statistical test . . . We think that a substantial annual sum could not be better spent than on the strengthening of the statistical department . . . and that in course of time a corpus of reliable knowledge could be built up which might save us from mistakes involving a waste of resources worth many hundreds of times the total cost of acquiring the knowledge. There can be few worse perversions of the ideal of wise economy than a narrow limitation on what we spend for the improvement of economic knowledge."

**Continuity
essential.**

506. In the compilation of statistics of this kind, continuity is absolutely essential. Results cannot properly be gauged by isolated inquiry, however thorough, at a stated time. We urge that steps be taken at once to repair the breach that has been allowed to appear by the discontinuance of the bank statistics after the end of 1932. We regard this as a matter of urgency. We would point out that the basis upon which bank statistics were compiled by the Statistician from 1927 to 1932 very closely resembles the form recommended by the Macmillan Committee in 1931 for the standardization of bank statistics in England and the fact that there is in Kenya a body of statistics on those lines covering a period of six years makes it, in our opinion, all the more important that the 1933 figures should be added to them and that the machinery should be restored for continuing such statistics for 1934 and future years.

507. We therefore make this specific recommendation regarding the bank statistics and trust that early action will be taken on it as delay must make it additionally difficult to repair the breach since the end of 1932. Our view as to the importance of securing

a continuous and adequate supply of statistical data of economic interest and importance does not, however, relate solely to bank statistics. A correct understanding of the economic condition of any country requires detailed statistical information under three main heads :—

- (1) Population.
- (2) Industry.
- (3) Finance.

508. Census enumerations have taken place in Kenya in 1911, Population. 1921, 1926, and 1931. Such enumerations, taking place as they do at comparatively infrequent intervals, can be made the subject of special staff arrangements, and the existence of a permanent statistical organization to deal with them is therefore more a matter of convenience and efficiency than of necessity, so long as the proper methods of collecting the data and dealing with the information received have been laid down. Statistics of immigration have been inaugurated and are being maintained for Kenya but, we believe, not for the neighbouring East African territories. Legislation providing for the proper registration of births and deaths and the statistical analysis of the data so obtained has been proposed but has never been made effective.

509. With regard to industry, a comprehensive series of agricultural statistics is maintained by the Department of Agriculture, the results being published in annual Agricultural Census reports. This work should, in our opinion, be enlarged so as to embrace other forms of industry. The gold-mining industry gives every prospect of growing importance and there are other industries in the Colony which cannot readily find a place in the Agricultural Census reports. Publication of information regarding them in separate reports does not, in our view, completely meet the difficulty occasioned by the non-existence of any comprehensive annual publication dealing with the industries of the Colony as a whole.

510. Published statistics relating to Government finances are Finance. In our opinion adequate. In the realm of general (i.e. non-Government) finance we consider further action immediately necessary. General finance demands inquiry into :—

- (1) Bank statistics.
- (2) Trade balances.
- (3) Price levels.

Statistics on these matters, studied in their relation to the various activities in industry and the workings of Government departments, are very intimately connected and form the basis of any correct

understanding of industrial and monetary problems and of the balance of payments. They appear to us to form an essential framework to which the economic policy of the Government should be related.

Trade statistics.

511. We have already indicated our views on the importance of restoring continuity of bank statistics. Information regarding trade balances is given in the annual trade reports and it is in the matter of analyzing and correlating trade figures to other returns rather than in seeking to improve the trade statistics that the need for further action lies.

Price levels.

512. Information regarding retail price levels was given in a series of monthly bulletins issued by the Statistical Department, the last of which was published in November, 1933, and related to the month of September, 1933. The regularity with which these bulletins were issued has been interrupted. We understand that the material on which they are prepared is in process of collection but that pressure of work and a much reduced staff have prevented compilation and publication.

Expert examination necessary.

513. On the general question of economic statistics of this nature, we wish to emphasize two points. Experience and training are necessary to the proper consideration and correlation of such statistics. The subject is a technical one and requires not only that adequate data should be available but also that such data should be subject to skilled diagnosis. Without this much of their value is lost. Figures compiled otherwise than under expert guidance may be positively misleading.

East African basis.

514. In the second place we would record our view that the compilation of statistics for Kenya alone, which is beset with difficulties to some of which we have already referred, forms a part only of the field which statistical inquiry should cover. The economic unit which should, in our opinion, be subject to continual statistical analysis is the East African Currency basin comprising Kenya, Uganda, and Tanganyika. If that area is dealt with as a unit, we believe that firm conclusions can be reached, conclusions which will be capable of application to the special features of each of the territories.

Recommendations.

515. Our recommendation on this matter is, therefore, that steps be taken to appoint a competent statistician who should immediately proceed to the compilation of statistical data of importance to the prosperity of Kenya and that he should without delay restore the continuity of the bank statistics and maintain them for the future.

516. We also consider that the statistical information on publication of economic matters made available to the public through the medium of the Official Gazette during the course of the year should be amplified and co-ordinated. The information at present published in this manner is meagre. We recommend that steps be taken by the Statistical Officer under the direction of the Standing Board of Economic Development to prepare reports for monthly issue in the Official Gazette on the lines adopted by the Tanganyika Trade and Information Local Advisory Committee. The monthly reports issued by that body include statistical information on trade returns, agriculture, animal husbandry, veterinary, mining, immigration, railways and general and form a readily accessible record of the greatest value.

CO-OPERATIVE MARKETING.

517. In various sections of Chapter IV of our Report, we referred to measures of co-operative marketing in relation to particular industries. In this section we deal with the subject in more general terms.

518. Several important European Co-operative Associations formed for the purpose of the disposal of produce were registered following the enactment of the Co-operative Societies Ordinance in 1932. The principal of these, the Kenya Farmers' (Co-operative) Association, Limited, has been in existence for a number of years, and its membership comprises over 90 per cent of the wheat growers of the entire Colony. It originated as a marketing association for maize and wheat but has extended its activities to the marketing of pyrethrum and essential oils and to the co-operative purchase of supplies and farming requisites generally, particularly seeds and fertilizers. The Kenya Co-operative Creameries, Limited, embraces the larger part of the European dairying industry of the Colony and operates creameries at Naivasha, Lumbwa, Nanyuki and Thomson's Falls for the production of butter, and at Wanjohi for the production of cheese. The East African Timber Co-operative Society, Limited, the Stock-breeders Co-operative Society, Limited, are other instances.

519. These co-operative enterprises have rendered signal service to the industries concerned in the matter of the disposal of produce and especially to the wheat, maize, dairying and timber industries. A high degree of success has been achieved in raising and maintaining the standard of quality of products, in reducing costs between farm and markets, and in finding and retaining new markets. These societies have attained their present position of strength without any measure of compulsion and despite certain disabilities which are discussed later.

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520. In addition to co-operative societies certain associations have been formed which are actively interested in the disposal of produce : the East African Sugar Manufacturers' Association, the Kenya Sisal Growers' Association, the Kenya Tea Growers' Association, and the Essential Oil Producers' Association. Semi-official bodies on which growers are largely represented and to which Government can turn for advice on marketing problems relating to the industries concerned comprise : The Board of Agriculture, The Coffee Board, The Butter Levy Advisory Board, The Sisal Industry Committee, and The Native Marketing Advisory Council.

Organized marketing.

521. One of the questions it has been necessary for us to discuss with various industries is whether Government should introduce further legislation with a view to the assistance, or to the enforcement of a greater measure, of organized marketing. In almost every country in the world marketing policies have been adopted to assist farmers in the disposal of their produce. There is a continued interest in the revision of marketing policies. In England, more schemes are being prepared and brought into operation. In the United States of America a vigorous marketing programme is being pursued. In Australia, new Federal and State legislation has been introduced. Legislation to improve the marketing of agricultural products in Canada is under consideration. Rhodesia is adopting further and improved measures of control. There has been a general dissatisfaction with marketing services caused largely by the low prices of agricultural products between 1920 and 1924 and since 1929, giving rise to the feeling that improvement in marketing is not only desirable but imperative. The success of war-time policies of purchasing and distributing products under boards set up by Government, the pressure of international competition and the tendency towards concentration of business in larger units have contributed to the feeling that there is a need of a greater degree of Government control.

522. In Kenya, several measures have been introduced in support of organized marketing :—The Co-operative Societies Ordinance, for the protection and registration of co-operative societies, the Sale of Wheat Ordinance, which provides for all wheat to be marketed through a "pool", and the Butter Levy Ordinance, under which the local market carries a levy in support of the export market.

Effect of low world prices.

523. A situation has arisen in several important industries in the Colony in which the export price to the farmer has fallen below the cost of production. Once local demands have been filled, the surplus production has to be placed on the world's markets. This surplus is exported at a loss to the producer, but to the gain of the

Colony, because of the extra turnover, involving extra handling and transport services employed, and because every increase in exports brings new money or new goods into the country.

524. In connection with certain industries we have suggested Considerations underlying proposals for the adoption of the principle of controlled marketing under which the local price is regulated and the export market assisted by the control. local market. Our recommendations are subject to the following considerations. The price for produce sold locally should be regulated so as not to exploit the consumer; in raising the price to a reasonably high level, local conditions should be taken into consideration, and the price should not be advanced with the sole object of assisting the export of surplus production. The local market and the export market should be shared. As a general rule encouragement to increase production should be based on the economic value of the industry.

525. There are various methods of control, amongst which may Pooling. be mentioned, compulsory co-operation, levy on local consumption to meet loss on exports, limitation of production, sales-quotas in the local market, and marketing through one channel involving price fixation and pooling. The last method is considered the most generally applicable and acceptable to the export industries of the Colony. Sale through one channel or "pooling" is already in operation in the case of the wheat industry, and with suitable safeguards this method might in our opinion be extended to embrace the maize, dairying, sugar, pyrethrum and essential oils industries. The coffee, sisal and tea industries are not in the same category.

526. The recent South African Commission to inquire into co-operation and agricultural credit considered that compulsory sale through one channel by means of Boards of Control was economically unsound, socially unhealthy, and likely to lead to over-production and an ultimate collapse of prices. Conditions in South Africa, however, are not comparable with those obtaining in Kenya and the Commission recognized the equity of a scheme whereby the loss on export should be a charge on the total production of any one commodity produced in the country (paragraph 339). The Southern Rhodesian Committee of Inquiry into the Economic Position of the Agricultural Industry of Southern Rhodesia was in favour of the "pooling" method, and legislation has since been introduced on the terms recommended by that Committee.

527. From evidence submitted to us, it would appear that there is a large body of opinion in this country which would support marketing systems under which producers benefited equally in accordance with their production. Non-co-operators in general are

not, it is believed, averse to compulsory control measures involving pooling and local price fixation, as they realize the equity and advantages of such an arrangement.

528. While not wishing to under-estimate the improvements and advantages likely to result from controlled marketing, it is desirable to emphasize that too much must not be expected of controlled marketing. There remains the need for further reductions in cost of production, the need for further search to obtain markets for Kenya produce, and for an advance in the world's markets of the prices of commodities exported from this country.

Compulsory membership of Co-operative Societies.

529. Compulsory membership of co-operative societies is not advocated. Compulsory co-operation in that sense would appear to be a contradiction in terms—true co-operation can only exist healthily on a voluntary basis in which a spirit of self-help is eminent. Controlled marketing by means of sale through an agency has been criticized on the ground that it leads to the elimination of co-operation, but such has not been the case in the wheat industry of Kenya, wheat growers having remained members of their co-operative society. In the maize and butter industries of the Colony a situation exists, owing to the collapse of world market prices, whereby a member of the co-operative societies concerned could in many cases secure a greater financial return by resigning from the society and selling his produce on the local market, but despite this temptation to be disloyal to his society, the co-operative membership of maize growers and of butter producers has been maintained. It would appear that co-operation has gained a sound and firm footing in this country and that compulsory marketing measures, wisely controlled, will assure fair treatment to the co-operator and non-co-operator alike and lead to the strengthening and encouragement of true co-operative effort.

THE SEARCH FOR MARKETS.

530. A large part of the trade of Kenya is carried on with industrial countries of Europe, mainly Britain, but a growing volume is arising with countries in Eastern waters. Kenya is in a favourable geographical position with reference to Eastern countries. Some of these countries are already densely populated and are showing a rapid increase. Population is pressing with increasing severity on the land and the supply of food and raw materials from internal sources is becoming strained. In some cases an escape is being sought through a process of industrialization, and it appears that the demand for food and raw materials must increase very considerably. As time goes on this increase of demand will be accentuated by the struggle to improve upon the present low standard of living.

531. In Kenya there is abundant land which by more intensive utilization will be in a position to supply in part these growing needs. Much of this land enjoys a temperate climate and will be able to produce perishable commodities highly desired by the teeming populations of tropical eastern cities. A considerable trade in such perishable produce is even now carried on with countries as far distant as Europe.

Certain commodities produced in Kenya are already finding markets in such more distant areas as the western coast of the United States and of Canada.

532. The desirability of intensively exploiting these markets needs no emphasis. We would draw special attention to India and Ceylon in this connection. A necessary preliminary for the fostering of mutual trade is adequate commercial representation on both sides. So far Kenya has no such representative in India and we urge most strongly that steps should be taken as soon as possible to appoint one. In our opinion the type of man required for this purpose is one who possesses energy, experience, initiative and knowledge of the products of this Colony. He should have commercial training with experience in freights, costing and the quoting of prices. His duty would be to explore the Indian markets with a view to opening up trade in Kenya products. We regard it as important that his activities should be concentrated on this duty and that he should not be encumbered with minor additional duties. He should be able to devote his whole time to the study of the needs of the market in relation to production possibilities in Kenya, to methods of marketing, and to establishing and maintaining commercial contacts. We recommend an appointment for, say, two years in the first instance subject to review at the end of that period in the light of the results achieved.

533. We have given consideration to the question of whether such an appointment should be preceded by a temporary mission to India. A trade representative might start off with an advantage if preceded by a mission consisting of influential persons, and the mission would be in a good position to make a wise selection of a man for the post. On the other hand we feel that beneficial results are more likely to be achieved by close study on the spot than by preliminary discussion and that the expense of a temporary mission would not be justified.

534. The suggested representative should be responsible also for Ceylon, new shipping facilities having opened up new possibilities of trade to that Colony.

Liaison in Kenya.

535. Success in both India and Ceylon would in part depend upon the existence of a live counterpart in Kenya, and we suggest that a useful liaison could be maintained through the Secretary of the Standing Board of Economic Development whose appointment we have recommended.

FURTHER SETTLEMENT AND TOURIST TRAFFIC.**Attractions to visitors.**

536. Kenya has many attractions for the visitor whether or not he visits the Colony as a potential settler. Big game hunting has been a well-known attraction for many years and brings a considerable number of visitors annually. There have also been many visitors who come for varying periods to stay with friends or relations. These probably require little or no assistance for their travels in the Colony. They visit Kenya primarily for personal reasons connected with the country.

537. But there is a large public whose interest in Kenya as a place to visit can be aroused only by indirect appeal and propaganda and who will be the more inclined to see the country if knowledge of its attractions and of the amenities available to the temporary visitor is brought to their notice. This refers not solely to those who might make special journeys for the purpose from England or elsewhere, but also to those whose business or pleasure takes them past Kilindini by sea or through Nairobi by air and who can find the time to disembark and remain over until the following sailing, or who have two or three days for a flying visit to the highlands while their ship is in port.

538. We regard it as important that the assets which Kenya possesses in its scenery, its game, its fishing, and its climate should be adequately developed. The value to the Colony of the "invisible export" due to the spendings of visitors to the Colony is already considerable. We believe that it is capable of being largely increased.

539. It has been suggested to us that the publicity work necessary to bring facilities for travel and short stays in Kenya to the notice of travellers, steps to improve those facilities and action to remove minor disabilities as they arise, is work of sufficient importance to the Colony to justify a special body to deal with it, that the potentialities of the tourist traffic regarded as an entity in itself and not solely as incidental to further settlement are capable of development and that there is need of a body concentrating solely upon this work. It has also been suggested that the best results might be obtained by setting up a branch of a Government department with special staff appointed for the purpose.

540. While we agree that there is at present an inadequate Suggestion amount of co-ordination in the effort to popularize the attractions of Kenya as a resort for temporary visitors, we do not agree with to deal with either of these suggestions. In the first place we believe that work of this kind can be done better by a non-Government association, working in close touch with Government certainly, and receiving all possible help and stimulus from the Government departments concerned, but not functioning as a State organization.

541. In the second place, the work falls within the scope of the activity of the Kenya Association (1932). That Association has many activities, one of which is to attract temporary visitors to the country and to assist them when they are here. In our opinion any steps taken to develop the national effort in respect of tourist traffic should lie in the direction rather of strengthening the resources of the Kenya Association than by setting up another body which would inevitably impinge upon an important part of the work for which the Kenya Association was formed.

542. The Kenya Association issues upwards of a thousand brochures and pamphlets each month to shipping companies, publicity offices, exhibitions and private inquirers; it deals with inquiries from all over the world regarding land, settlement, trade, employment, holiday tours, shooting trips, crops, climate, living costs, hotels, transport and other matters; and it has many other activities associated with the tourist as well as the settlement side of its functions. Its resources are taxed to the uttermost in dealing with the present volume of work and we agree that an increase in these resources will be necessary if the Association is to be the body entrusted with the further development of tourist traffic. We recommend that the need for such further development be recognized by an additional annual grant to the Association for this purpose.

543. From the evidence given to us we have formed the opinion Co-ordination that the publicity and advertising work carried on for the Colony of publicity needs further co-ordination. The funds available for publicity and advertising are limited and without co-ordination of effort those limited funds cannot serve their purpose to best advantage. Furthermore, undue multiplicity of pamphlets leads to confusion. We believe that the most effective results would be obtained by collaboration in the preparation of pamphlets and handbooks of information of interest to visitors under the aegis of the Kenya Association, rather than by individual unco-ordinated efforts, however good in themselves, and we suggest that co-ordinated brochures of this kind should be issued under authority of the Colony. We

believe that more weight may be held to attach to publications of this kind which are expressed as being published under Government authority.

The Kenya Association and further settlement.

544. We have no recommendations to make for improving the organization already in existence for increasing white settlement in the Colony. During the past two years the Kenya Association has amply proved the value and efficiency of its organization and in this direction we can suggest no modification or amplification of its work.

WATER CONSERVATION AND WATER LAW.

545. Proposals for the conservation of water naturally change with the varying conditions found in different parts of the Colony. In some areas, the drainage and reclamation of swamps would increase the fertility of the district; in others small dams in river beds would provide permanent water for domestic and farm use. There are areas where flood waters could be diverted to fill storage tanks once or twice a year; there are other areas where boring provides the only potential source of permanent water.

Large capital expenditure not justified.

546. The evidence given to us is to the effect that the topography and geological conditions in the Colony are not suited to the economic construction of large dams and that it would be sound policy to develop small schemes of water conservation before embarking on projects involving large capital expenditure. This applies to irrigation projects as well as to water supplies for other purposes. A number of comparatively small irrigation projects have been noted as worthy of detailed investigation and survey but none have been placed before us in sufficient detail to warrant any recommendation.

547. Apart from the irrigation works in the neighbourhood of Lake Baringo which we understand have been recommended for development by means of a grant from the Colonial Development Fund there have been no proposals for water conservation or irrigation works brought to our notice which would justify us in making a recommendation for their construction out of loan funds, nor do we find that any programme for developing the Colony's water resources has been worked out in sufficient detail for us to suggest that any sum of money be set apart for this purpose in the near future.

Water boring.

548. From 1926 to 1932 a water boring branch of the Public Works Department was operating in various parts of the Colony; 174 boreholes were sunk of which 111 were successful. For reasons of economy, the staff has now been disbanded and Government no

longer undertakes boring but boring plants may be hired by individuals under terms laid down in the regulations governing the hire of Government boring plants.

549. The water law at present in operation in the Colony is in The Water Law. effect English Common Law with regard to water modified slightly by the Crown Lands Ordinance (sections 75 and 145) and the Crown Lands (Water Permit) Rules, 1919. A water permit granted under the above legislation does not grant a water right and an operator does not possess any security of tenure to the water on which the whole of his farming operations may be dependent. His right to the use of the water is liable to be assailed in the Courts notwithstanding the fact that the diversion and use of the water may have been authorized by water permit, which merely states that the Government permits a person or has no objection to a person diverting, abstracting or using water in such and such a manner provided the person complies with certain conditions.

550. Except in a comparatively few areas, the water resources of the Colony are inadequate to the full development of the land. It is in our opinion highly desirable that water resources should be properly investigated and controlled so as to make it possible for them to be used to the greatest advantage and to give operators security by the grant of water rights. We consider that it is of great importance that the Colony's water law should be established on a sound basis as soon as possible but we realize that this depends upon budgetary considerations. The Water Ordinance, 1929, has not yet been brought into operation owing to lack of funds. The cost is estimated at about £2,000 per annum in the initial years of operation but might be reduced after the Ordinance has been in operation for some time. A certain amount of revenue would accrue but no estimate of this can be prepared until the policy of the Water Board, to be established under the Ordinance, has been formulated.

551. The application of the Water Ordinance essentially depends upon the distribution of expenditure in relation to recurrent revenue. We can therefore make no recommendation for the immediate application of the Ordinance, but we wish to stress the importance of placing the water law of the Colony on a proper footing, a step which in our opinion is essential to the proper development of the Colony's resources.

ROADS AND BRIDGES.

552. Our function in regard to the further development of road communications in the Colony, as we conceive it, is not so much to examine proposals affecting particular lines of communication,

which is the duty of the Central Roads and Traffic Board, as to express an opinion on the advisability of asking for additional loan funds for this purpose.

Proposals submitted for consideration.

553. The proposals placed before us include the construction of an all-weather road from Lumbwa to Kericho to serve the tea estates in that area; the development of road communications with the mining areas; the construction of a bridge over the Tana affording a ready means of communication between the Machakos and Kitui Districts and Embu, supplying a market for the live stock of the former districts and to the Embu District a market for surplus foodstuffs; a bridge over the Athi River facilitating communication between Machakos and Kitui and giving all-weather access from the Machakos District to the Yatta Plains; improvement of communications from Kipsonoi via Sotik Post to the Narok District to facilitate conveyance of maize meal; of the Mombasa-Garsen Road, of the Garissa-Lamu Road; between Mr. Dawson's Mill at Saymet to the main Litein-Kericho Road, the mill being of great importance to the maize industry in that area; and the opening of a connecting link between a point eighty miles beyond Kitui (where the present road ends) and Malindi, which would open up a new game-hunting country north of Sabaki, and provide access to an increasingly popular seaside resort.

These and other proposals have come before us. It is obvious that some of them can only bear examination as works to be carried out from revenue and these we discuss no further.

Athi River Bridge.

554. In regard to the Athi River bridge, we understand that estimates for the construction of this bridge were framed by the Public Works Department and the expenditure was considered in a previous year. We are also informed that the Machakos and Kitui Local Native Councils have inserted contributions in their 1935 Estimates aggregating £1,200 towards the cost of this bridge which is considered necessary to ensure proper all-weather communication between the two districts. It is further a vital link between the overstocked area in the Machakos Native Reserve and the Yatta Plains which under the proposed system of reconditioning the Machakos Native Reserve will be used for the accommodation of the surplus cattle. We therefore consider it of major importance on economic grounds that funds should be provided in 1935 for the construction of this bridge and if the money cannot be found out of revenue or by grant from the Colonial Development Fund, we recommend that borrowing powers be sought to obtain the necessary money from loan in conjunction with the further borrowing powers we have recommended for development of communications in the mining areas (paragraph 557). We regard the construction of a

Tana River Bridge.

bridge over the Tana River between the Embu and Kitui districts as a work of administrative convenience rather than of economic necessity and are unable to recommend that loan funds be used for this purpose.

555. With regard to the proposal to construct an all-weather Lumbwa-road from Lumbwa to Kericho there is already a road between Lumbwa and Kericho which, though not entirely satisfactory as to its surface, is passable throughout most of the year, is reasonably well aligned, and with proper maintenance can in our opinion be made adequately to serve its purpose. We see no cause for the expenditure of loan monies on this road if, as we believe to be the case, the existing road can be maintained in a reasonable state of repair from revenue.

556. Roads to serve the gold-mining areas present a somewhat different problem. The Nyanza goldfields are still largely in the prospecting stage and although the need for an all-weather line of communication with Kakamega is apparent, the direction that that line should take cannot be decided without taking into consideration the requirements of other parts of the adjacent goldfields. Similarly in the Gori area south of the Kavirondo Gulf it is too early to decide what permanent lines of road communication should be developed.

557. We admit the difficulty caused by the absence of any definite plan for the construction of permanent lines of communication by road in the mining areas but we regard this as a purely temporary difficulty. The goldfields are developing rapidly and the work is becoming localized in known mines. The lines upon which road communications should be constructed will therefore be decided in the comparatively near future and we regard it as important that, when the road plan has been agreed upon, Government should have funds at its disposal to carry the plan into effect. We therefore recommend that Government should seek authority to borrow money for permanent construction work such as bridging and hard-surfacing in the gold-mining areas when the road plan for those areas has been approved.

TRANSPORT CHARGES.

558. The representations made to us on behalf of practically all the industries have included reference to the present scale of railway, port and shipping charges as disabilities under which those industries are labouring.

559. We do not propose to deal with the question of railway or Railw^{Port charges.} harbour rates in any detail. The considerations underlying the present tariff are based upon the necessity of securing a surplus of

receipts over expenditure for the transport system as a whole and while it would be easy for us to recommend a downward revision of rates in special cases we recognize that a recommendation of this kind could carry no weight unless it was based upon a comprehensive examination of the finances of the Railways and Harbours Administration as a whole, an examination which we have not carried out, and which, in fact, lies outside our terms of reference.

Effect of loan charges.

560. The general standard of railway rates both on export and import traffic is largely determined by the interest and redemption charges on loans floated for railway extensions during the past thirteen years. These are fixed charges from which there is apparently no escape. The broad position as we see it is that money borrowed at fixed rates of interest has been used to extend the railway system in Kenya and Uganda which is equipped to deal with a volume of traffic much greater than has as yet materialized and the traffic offering therefor has to carry a disproportionately heavy burden.

561. The 1933 Railway earnings (excluding Harbours) totalled £2,088,162. Ordinary working expenditure amounted to £990,054—an excess of receipts over ordinary working expenditure of £1,098,108. Of this latter sum, £385,102 was allocated to depreciation and £615,722 to interest and redemption charges on loans. After allowing for various other transactions on net revenue account a balance of £262,818 (less a deficit of £29,982 on harbour working) was transferred to the deficit account. This figure of £262,818 represented the "profit" on the working of the Railway system in 1933 after meeting ordinary working expenditure, depreciation at $2\frac{1}{2}$ per cent of the capital value of Railway wasting assets, and all loan charges.

Depreciation.

562. No substantial decrease in Railway rates can be expected until either the paying traffic increases or the fixed charges are reduced. A reduction in loan charges may be anticipated for 1946 when the 1921 6 per cent loan reaches maturity but there is no prospect of unilateral conversion of any of the loans before that date. In our opinion the interests of present users of the Railway, particularly in a period when world prices are low, demands the adoption of a policy of low contributions towards depreciation until relief from the present high loan interest charges is obtained in 1946 and later years. The incidence of present loan charges and of a substantial rate of depreciation is bearing very heavily on the traffic using the Railway system and if loan charges cannot be reduced we consider that it would be sound policy to modify the depreciation charges for the next twelve years to admit of rate reductions where these are most urgently required.

563. The policy of maintaining low railway rates for exports Shipping freights. is a policy which we fully endorse. Such a policy can ensure produce from up-country reaching the port at relatively cheap cost. But between the port and the market the costs of transport are dependent upon the policy of shipping companies in directing which the Government of the Colony has no influence. The regular lines to Europe and South Africa have set up through the East African Shipping Conference a single control and exporters and importers are tied down to shipment through this single control by a system of deferred rebates. Only in special cases, as with maize, wheat, and sodium carbonate, has the right been secured to charter ships outside the Conference Lines.

564. We realize that the shipping companies have a close interest in the development of East African trade and we realize the great advantage to East Africa of a regular service of vessels, but the evidence given to us during the course of our inquiry indicates that in many cases the sea freights charge between Kilindini and London are high relative to freights charged from other and more distant ports and it has been suggested also that the rebate principle operates on balance to the detriment of producing interests in the Colony.

565. We have not examined these questions in detail. In view The rebate principle. of the part they play in the future development of the Colony, they constitute a line of inquiry which should, in our opinion, more appropriately be entrusted to a committee specially appointed for the purpose and we recommend that such a committee should be set up to consider the implications of the system of rebates which has, we understand, been declared illegal in South Africa and certain other British Dominions.

566. With regard to the general question of sea freights we Liaison with exporting interests. consider that a closer liaison is desirable between exporting interests in Kenya and the shipping companies. Such liaison would be made more effective by Government participation and we recommend that steps be taken to set up a Standing Committee at Mombasa to include representatives of the Government, of the shipping companies and of local producing interests so that representations by or on behalf of the various industries on the subject of sea freights may receive joint consideration.

VII.—MONETARY POLICY.

567. The analysis of the Colony's principal exports which we Fall in prices. gave in Chapter II (D) indicated the annual variations in the average f.o.b. values of the commodities exported from Kenya and showed

in the case of all articles other than gold a rapid and severe fall in price from the 1928-29 level. That the fall in export prices lies at the root of Kenya's economic difficulties is unquestionable. In all the principal export industries attempts have been made to counter the effects of falling prices by reductions in costs but in the majority of industries export prices have fallen below the costs of production and marketing and the choice has lain between production at a loss or abandonment of production. That is the position as it affects individual productive effort.

**Effect upon
the Colony.**

568. The position of the Colony as a whole has also been violently affected by the fall in export prices. Between 1921 and 1930 the Colony borrowed £15,900,000 in London. The loan programme was worked out at a time when prices were relatively high and the annual interest and sinking fund charges to be paid in sterling were judged in the light of the prices then ruling. The effect of the fall in prices has been to necessitate the export of a greatly increased volume of produce to enable the Colony to acquire the funds to meet its annual loan and other commitments in London. The quantity of produce required to obtain a given amount of sterling may now be anything from two to three times as much as it was six years ago.

569. The separate effects of the fall in prices upon the various industries and upon the Colony as a whole are naturally to some extent cumulative, for whereas the Colony as a whole is required to increase its output for export, individual producers who depend upon being able to market their produce at a profit must restrict or abandon their operations if they can only dispose of their produce at a loss. Unless production for export is profitable, an industry loses the stimulus necessary to development on an export basis and although in some industries a system of co-operative marketing may help to even out the average price by taking into account the higher prices obtainable from local sales, there is clearly a limit to the capacity of this system to support an exportable surplus at an average price which itself shows a profit to the producer.

**A world
problem.**

570. The problems created by low world prices are world problems. They are common to all raw-material-producing countries and they have been engaging the attention of economists, statesmen and Governments all over the world. They were discussed at considerable length at the Imperial Conference at Ottawa in 1932 and at the World Economic Conference in 1933 one of the principal proposals placed before the Conference by the British delegation was that "it is essential to bring about a recovery in

the world level of wholesale commodity prices sufficient to yield an economic return to the producers of primary commodities and to restore equilibrium between prices and costs of production generally".

571. It is obvious that no action taken in the local field can affect the world prices of the Colony's exports. Those prices are determined by factors entirely outside local control. But it has been suggested that by a deliberate alteration in the sterling parity of the East African shilling a reduction might be made in the sterling value of shilling costs, particularly those protected by contract, and that such action might tend to reduce the sterling value of local costs of production to a figure comparing more favourably with sterling prices on the export market.

572. Depreciations of currency or devaluations in terms of gold have been adopted by or forced upon a large number of Sovereign States in recent years. Two Dominions have placed their currencies at a discount relative to sterling. The argument that monetary policy in many Sovereign States, including Great Britain, has taken this course has been advanced in favour of similar action being taken locally. The suggestion has not come before us as a concrete scheme the details of which have been agreed to by the advocates of East African currency depreciation, but as a general proposition that the present parity of twenty East African shillings to one pound sterling should be changed and that some lower sterling value should be placed on the East African shilling. It appears, however, to be generally agreed among the advocates of currency depreciation that sterling should continue to be regarded as the base to which East African currency must continue to be related.

573. In considering this suggestion it is necessary to examine the nature of the currency in use in East Africa and to refer to the manner in which the present currency came into being.

The nature of
present East
African
currency.

574. The currency in Kenya and Uganda originally consisted of the Indian rupee as the standard coin, with smaller local coins and notes of higher denominations from Rs. 5 upwards all expressed in terms of the rupee. The British sovereign was also legal tender at the rate of fifteen rupees to one sovereign. The note issue and subsidiary coinage were under the management and control of Currency Commissioners who maintained a reserve fund consisting of investments and other sterling assets and of Indian rupee coins and notes.

575. During the war, the circulation of British sovereigns ceased and the "pound sterling" acquired a meaning no longer effectively connected with the sovereign. The exchange rate between the Indian rupee and sterling was maintained by the Government of India at Rs. 15 to £1 until towards the end of 1917 when an increase in the sterling value of silver gave the Indian rupee coin an intrinsic value greater than 1s. 4d. sterling. The sterling value of the Indian rupee continued to rise during 1918 and 1919 and early in 1920 reached 2s. 9d. This tendency to rise caused a consequential increase in the sterling value of local services and commodities. The fluctuations in the exchange rate were too rapid to allow local conditions to adjust themselves to outside influences, an adjustment rendered all the more difficult by the uncertainty regarding future exchange movements.

576. There were therefore two adverse factors operating in East Africa immediately after the war : the liability of the standard coin to fluctuate in terms of sterling and the steadily increasing value of the standard coin. The former disability militated against the importation from the United Kingdom and other sterling countries of capital much needed to develop local resources, while the latter increased the sterling costs of production of all commodities exported without any corresponding increase in price except in so far that the depreciation of sterling had caused a general rise in sterling prices.

Stabilization with sterling.

577. In view of the close association between the productive effort in Kenya and Uganda and the sterling market and of the need for encouraging the investment of capital from the United Kingdom and sterling countries in the development of East Africa, it was decided to stabilize the sterling exchange by adopting a monetary system tied to sterling. This decision was announced in the House of Commons on the 25th of February, 1920, in the following terms :—

"The dependence of East Africa on the United Kingdom both for its market and for the capital required for development has made it desirable to stabilize the East African exchange on a sterling basis. In deciding to prevent the East African rupee from being forced up to above 2s. 4d. by the recent action of the Government of India in respect of the Indian exchange, and to fix it eventually at 2s. the most careful consideration was given to the interests not only of the settlers, who have been seriously affected by the appreciation of the rupee, but also of those persons, Indians and others, who have commitments in or dealing with India, and of the native wage earners".

578. The fixation at Sh. 2 became effective during the first week in March, 1920.

579. Relying on the declared policy with regard to local currency and exchange, considerable capital was imported, but it became apparent very shortly after the fixation that there was a movement to press for the conversion of the rupee at 1s. 4d. instead of 2s. An announcement in the following terms was accordingly made both in England and in East Africa :—

“To have gone further and attempted to force back the rupee to its old sterling equivalent, however desirable in theory, would not have been possible in practice. It would have meant considerable injustice to banks and all other creditors, more particularly those who have obligations in India. It would have involved the risk of serious shortage of currency taking place before the end of the transition stage, through illicit exportation or hoarding of present currency. It would have made it impossible to produce, without risk of loss, a new rupee resembling the old rupee sufficiently to be acceptable to the native as its equivalent. It would thus in fact probably have led to a general disturbance of internal prices in East Africa which would have re-acted on settlers' costs of production and so frustrated the object in view.”

580. It was also pointed out that any further change, after the Secretary of State's decision had been announced, would also have destroyed confidence with consequent adverse influence on the importation of capital and trade generally and with special hardship to those who had recently entered into commitments on the strength of the official announcement. Not only this, but any unrefuted suggestion of there being even the remotest possibility of Government's decision being changed would have created a feeling of insecurity which would have been highly prejudicial to the welfare of the country.

581. A notice was published in the Official Gazette on the Pledge of the
31st of March, 1920, in the following terms :— Secretary of State.

“With reference to a suggestion which has recently been made that the local exchange value of the rupee should be restored to 1s. 4d. the Secretary of State for the Colonies has authorized an assurance being given that the 2s. rate is fixed and permanent.”

The florin.

582. The original intention had been to introduce an East African rupee coin valued at 2s. sterling, but shortly after the fixation it was decided, on local representations, to follow sterling nomenclature and to express the new coinage in terms of florins instead of rupees, the 50 cent piece being alternatively termed a shilling. It was also decided that the British sovereign should not be continued as legal tender.

583. The florin was established as the standard coin by an Order in Council passed on the 26th of April, 1920. In the following month a recommendation was made to the Secretary of State that the coinage of florin pieces should be discontinued and that an increased number of shillings should be coined instead in the hope of checking the rise in wages which would be governed by the value of the highest silver coin. There were practical difficulties preventing the adoption of this recommendation which need not be examined here, but the disadvantages felt to be associated with a standard coin of so high a sterling value as a florin led to further representations in July, 1920, aimed at the withdrawal of the florin from circulation and the adoption of the shilling as the standard coin.

584. A further movement for the alteration of the florin fixation reached a head in February, 1921, when the sterling exchange value of the Indian rupee had again fallen to below 2s. A motion was proposed in the Kenya Legislative Council :—

“That in view of the inflation of the cost of production by the arbitrary fixation of the standard coin of East Africa at the rate of ten to the pound sterling ;

And in view of the fact that the present low exchange value of the Indian rupee imperils the position of the East African Currency Board ;

The fractional relationship of the standard coin in East Africa should be altered to its previous basis of one-fifteenth of the pound sterling.”

The shilling.

585. This motion was lost. By a motion carried later in the same day the Council resolved “that the pledge of the Secretary of State, gazetted on March 31st, 1920, must stand and that a committee be appointed to devise ways and means of introducing such currency on a sterling basis, at the earliest date, as will make the shilling, or a coin of similar low denomination, the standard coin.”

586. The report of the Committee dealt largely with the practical steps to be taken towards the introduction of a shilling currency during the period that must necessarily elapse before an

adequate supply of shillings could be minted and delivered in East Africa. It was adopted in the Legislative Council on the 8th March, 1921.

587. On the 10th August, 1921, the Kenya and Uganda The Order in (Currency) Order, 1921, was passed providing for the coining of a British East Africa shilling which should be the standard coin in Kenya and Uganda. Similar action was subsequently taken for Tanganyika Territory. The Order in Council provides that :—

"Where any sum due to be paid after the commencement of this Order is payable in pounds or pounds' sterling, whether the obligation to make the payment was incurred before or after the commencement of this Order, the payment may be made in shillings at the rate of twenty shillings to the pound or pound sterling."

588. This Order came into operation on the 1st of January, 1922, and is still in force.

589. The East African Currency Board was constituted in December, 1919. The constitution, duties and powers of the Board are defined by regulations made by the Secretary of State, the extant regulations being dated the 11th July, 1932. Those regulations provide, *inter alia*, that :—

"7. The Board may charge for coin or currency notes to be delivered in East Africa against prepayment in London such premium above the nominal value (at the rate of twenty shillings to the pound) not exceeding the actual cost of transporting specie (packing, carriage, insurance) as they may think fit, and may vary the charge from time to time within this limit. If coin or notes are delivered on telegraphic order or order by air mail to East Africa, the Board may increase the premium as they think fit."

8. The Board will, when required, arrange for the issue against coin or currency notes tendered in East Africa of drafts payable in sterling in London at a charge not exceeding the cost of transporting specie from East Africa to London, and may, at their discretion, issue telegraphic transfers on London on such terms as they may think fit."

590. In addition to the Order in Council and to the regulations governing the operations of the East African Currency Board, there are three local Ordinances specifically dealing with the local currency, viz :—

The Currency Interpretation Ordinance (Chapter 2) which deals with references in Applied Acts to rupees, annas and pice and provides (section 4) that :—

“Any reference in an Ordinance to pounds or pounds sterling shall have effect as if reference had been made to twenty times the number of shillings.”

The Currency Notes Ordinance (Chapter 44) which deals generally with the authorized note issue. Currency notes may be for such denominations as the East African Currency Board may approve from time to time and may at the discretion of the Board be expressed in terms of shillings or of pounds at the rate of twenty shillings to the pound or of both. Section 3 (2) of this Ordinance provides that :—

“It shall be lawful for the Board to pay to the bearer of a currency note the amount named therein, and the amount required for such payment shall be a charge on the monies and securities in the hands of the Board and, failing them, on the general revenues of the Colony.”

The Currency Loan Ordinance (No. 16 of 1933) makes it lawful for the Governor to authorize the Crown Agents for the Colonies to raise from time to time loans in London in the form of bonds or otherwise to an amount not exceeding £650,000 at any one time. The net proceeds of these loans are to be paid to the East African Currency Board and are to form part of the assets of the Board. Interest on any such loans outstanding are to be a charge on the revenue and assets of the Colony.

591. Similar Ordinances have been passed in Uganda and Tanganyika.

The East
African
Currency
Board.

592. This review and the references to the enactments governing the currency in use in East Africa show the character of the East African currency and the intentions underlying its introduction. These intentions were designed to secure for East Africa a currency system preserving stability of exchange with sterling, and all enactments governing the East African currency have been framed so as to safeguard stability in this matter. They form a connected whole with that sole end in view. Moreover, they cover a currency basin consisting of three dependencies each under a separate Government and the machinery devised to ensure and preserve stability in the sterling exchange includes legislation by Order in Council, by Regulations approved by the Secretary of State, and by local Ordinance passed by three separate legislatures.

593. This being the position in regard to the existing East African currency, what steps would be necessary to effect a change? The answer must surely be a new Order in Council, revised Regulations to be approved by the Secretary of State, and amending Ordinances to be passed by the three legislatures concerned. This answer applies whatever form any contemplated change may take. This is the practical aspect of the question. No matter what consequences may be thought likely to ensue from a change in the present sterling parity of the East African shilling, discussion aimed at an elucidation of these consequences cannot be of anything but academic interest unless the way is seen clear to translate into practice any step deemed right and proper when the analysis of those consequences has been completed.

594. We have already referred to the fact that the East African Currency basin covers three Dependencies each under a separate Government, and it follows that any change in the relationship between East African currency and sterling would normally be expected to apply over the whole currency basin. But there is an alternative which does not presuppose action over so wide an area. The alternative implies a dissolution into component parts of the currency area as it at present exists, the currency system in Kenya being separated from those in Uganda and Tanganyika and working independently of them. We regard this alternative as unsound in every way and we may mention that none of the witnesses who have made representations to us advocating a change has advocated the constitution of Kenya into a separate currency entity. But the dismissal without further argument of this line of approach to the problem serves to emphasize the nature of the question under discussion. If it is agreed on all sides that Kenya cannot take independent action in regard to its currency, it follows that the question cannot be usefully examined from a practical point of view except from an East African basis.

595. The problem therefore assumes a form which cannot by its nature be dealt with adequately by a committee appointed in one only of the three Dependencies concerned. From a practical point of view it is an East African and not a Kenya problem and must be treated as such. Whatever might be the view held in Kenya as to the desirability of a change in the present relationship with sterling there is no means available to a Kenya committee to judge of the effects of such a change as applied to the neighbouring territories.

596. But the matter goes further than this. Even if all three East African Governments were agreed that some change should be made in the interests of East Africa as a whole, it by no means

Kenya as a
separate
currency unit.

Limitations
of a Kenya
enquiry.

Imperial con-
siderations.

follows that a change would be introduced... The final decision rests in London, where the question would have to be considered on something wider than East African lines. On the hypothesis mentioned, the question would be whether a group of British Dependencies in East Africa should be permitted as a matter of Empire policy to diminish the sterling value of its standard coin. The whole tendency in the Imperial Government's Colonial policy has been to foster and develop co-operation and closer relationships between the tropical Dependencies. More and more the aim has been to treat the Colonies as a whole and to encourage a unified course of action in them on matters affecting Empire policy. Any question of currency depreciation in East Africa would therefore have to be judged from the Imperial standpoint and account would have to be taken of the effect upon Imperial policy as a whole of permitting one part of the Colonial Empire to depreciate its currency in terms of sterling. It seems clear that the hypothetical advocacy of currency depreciation by the East African Governments could only hope to achieve approval if it were to be shown that conditions in East Africa were so essentially different in kind from conditions in the rest of the Colonial Empire as to justify differential treatment.

**Present
conditions not
peculiar to
East Africa.**

597. But unless it be maintained that the currency fixation of 1920 constitutes a ground for differential treatment—and this, after fourteen years of operation of the present currency cannot be advanced as a cogent argument—there are no circumstances affecting East Africa in the present period of depression which are peculiar to East Africa or different in kind from those affecting the rest of the Colonial Empire. Practically the whole of the Colonial Empire is affected by the burden of debt contracted during a period of relatively high prices entailing annual payments at greatly reduced prices; practically the whole of the Colonial Empire is suffering from the present disequilibrium between costs and prices; and practically the whole of the Colonial Empire has built up an administrative superstructure which, at present prices, is difficult to support. The hopes of the whole Empire are built upon a rise in sterling prices and nothing except a rise in sterling prices can provide a full and effective remedy.

**The Secretary
of State's
pronounce-
ment.**

598. We have said sufficient in this report to indicate how dependent production in this Colony is upon a rise in sterling prices. The suggestion under our present consideration is whether, pending a general rise in sterling prices, monetary action can be taken locally to provide a partial remedy. It has been shown that in such a matter as this Kenya cannot act alone and that the problem can

only be considered, even initially, on an East African basis. Furthermore, it is evident that East African interests in the matter of monetary policy must be judged from an Imperial standpoint. Whatever view may be held in Kenya on this matter, the views held by the Governments of Uganda and Tanganyika and the attitude taken by His Majesty's Government in the United Kingdom are all-important to the issue. It has naturally been impracticable for us to obtain any direct evidence as to the views held in Uganda and Tanganyika, but as these were referred to and as the attitude of His Majesty's Government was clearly defined by the Secretary of State on his visit to Kenya early in 1934, we quote the following extract from the official record of the Secretary of State's interview with the European Elected Members. The Secretary of State is reported to have said :—

"It would not be fair to leave anyone in any doubt as to what is the view of His Majesty's Government in this matter. In the first place, let me say that in this matter you are one of three territories. The strongest representation made to me of many representations in Uganda and made to me by the European community and the Indian community coming together was the most emphatic plea that in no circumstances should the shilling be unlinked from the pound sterling. The view taken in Tanganyika is, I know, the same. I may also add that I have not met a single business man in this country who has advocated any other policy to me. I have had, on the contrary, the most emphatic views expressed to me as to the unwisdom of such a course. I think such a course would be absolute madness; it would destroy your credit. It is impossible, because even if Kenya wished it, Tanganyika and Uganda would never agree and it would mean unlinking yourselves entirely from these Territories. As regards the effect on your credit at home, I think I speak with authority . . . It would certainly shatter your credit completely. It would not affect the world prices at which you sell your produce by one farthing. I very much doubt whether you could keep wages down with the cost of living rising under such a system. It would of course add terribly to the weight of your debt charges, and it would in the opinion of every financier I have consulted, and every commercial man, lead at once to an immediate attempt to realize securities and to call in mortgages. My own firm conviction and the conviction of His Majesty's Government is that that way damnation lies and I must frankly say to you with all the firmness at my command that in no circumstances whatever would the Government contemplate such a course."

Dangers of
lack of
confidence in
established
currency.

599. So emphatic a declaration as to the attitude of His Majesty's Government leaves no room for doubt. No change in East African currency can take place without the active intervention of His Majesty's Government signified by Order in Council and the Secretary of State has declared that "in no circumstances whatever would the Government contemplate such a course." This being the practical aspect of the matter attempts to calculate what might be the effect of depreciation upon the Colony's budget or upon the economics of the various industries can serve no useful practical purpose. On the contrary, discussions and calculations based on assumptions involving the hypothetical depreciation of East African currency may cast unintended doubts upon the integrity of the monetary basis upon which all business is conducted in East Africa and breed lack of confidence among persons who hear or read of such discussions but who are not fully acquainted with the nature of the ties between East African currency and sterling and the decision that those ties are to remain unaltered.

600. To such persons, open discussion of the possibility of currency depreciation must bring a feeling of mistrust not justified by the facts. Potential investors who have brought capital to the country awaiting investment will be inclined to remove it while they feel that they can do so without serious loss; others whose interest in Kenya has been awakened but who have not yet brought their capital will hold their hand or turn their attention elsewhere. For many years constant endeavours have been made to increase white settlement in Kenya and there is at present an Agent in London whose main activities lie in this direction. Any suggestion that there is the least danger of a writing down of the sterling value of capital introduced into Kenya must seriously affect the attitude of prospective settlers and militate against all efforts to encourage their coming. The same effect must also be anticipated in regard to other industrial undertakings including the development of the gold mining area.

601. East African currency is linked to sterling by ties which it is beyond the power of any one of the East African Dependencies to affect in any degree. The credit of all three Territories is pledged to the maintenance of the currency's parity with sterling which has been prescribed by law in terms as definite as the law can make them. The basic law governing East African currency is an Order in Council which cannot be changed without action by His Majesty's Government and the decision of His Majesty's Government that there shall be no alteration in sterling parity has been announced.

VIII.—SUMMARY AND CONCLUSION.

PARA.

- 37 602. We have not regarded it as any part of our Proposals function to investigate and report on the present revenue system of the Colony or to include recommendations covering the range of Government expenditure as a whole.
- 19 We are limited on the financial side by the facts of the Colony's budgetary position but, while keeping the present financial position prominently in mind, we have not regarded ourselves as precluded from recommending proposals involving additional finance where we are satisfied that the expenditure of money will benefit the Colony to such an extent as in our opinion justifies that expenditure.
- 40 603. The Public Debt of the Colony totals £17,205,600 of which £13,251,808 was borrowed for Railways and Harbours development. The Railways and Harbours Administration re-imburses the Colony for all loan charges on loans borrowed for transport development. As the Kenya and Uganda Railways and Harbours Administration is an Inter-Colonial Administration serving both Kenya and Uganda, the inclusion of the transport debt in the statements of the Colony's loan obligations tends to obscure the true picture.
- 74 604. Annual debt charges as shown in the Colony's budget will total £1,043,252 in 1935. Of this sum £817,531 will be reimbursed by the Kenya and Uganda Railways and Harbours whose revenues are derived from the Kenya and Uganda transport system as a whole and not solely from Kenya. Nevertheless the annual charges which the Colony has to meet overseas are high. Large sums of money have been spent upon transport and Colonial development in anticipation of a steady increase in traffic and substantial borrowings in London entail fixed annual charges which have thrown an increasingly heavy burden on the taxpayers of the Colony and the users of the railway system.
- 49 605. The Colony's overseas obligations can only be met from its exports, from services rendered within the Colony to territories outside Kenya or from the proceeds of loans, whether public or private, and credit or incomes received from abroad. It is necessary for the Government to maintain close touch with the Colony's balance of trade (in its widest sense) as well as to ensure a Necessity for maintaining close touch with trade position.
- 121 104
504 to 516

Economic statistics.

balanced budget. We regret that decisions taken last year have led to the abandonment of statistical research on many important matters. We recommend that steps be taken to appoint a competent statistician who should immediately proceed to the compilation of statistical data of importance to the prosperity of Kenya and that he should without delay restore the continuity of the bank statistics and maintain them for the future.

PARA.

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Increase in exports essential.

606. We conclude from the statistics examined that there has been a marked decline in the volume of business in the Colony's capacity to purchase goods from outside the Colony, and in the progress of development through credits from abroad. Development in the gold mining industry and other enterprises entailing the investment of new capital will affect the position, we hope substantially, but it is clear that everything possible must be done to increase the value of the Colony's exports as well as to encourage the inflow of new capital. An increase in production for export is essential. The commitments entailed by way of annual loan charges are external obligations and can only be met by efforts involving external transactions.

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Policy of promoting production.

607. We press for the adoption by Government of a positive policy of promoting production on a definite and sustained plan directed from headquarters, that the progress of such a drive should be kept under constant review in order that experiments may be judged by results and that information may be available for constant scrutiny so as to ensure that the efforts made are well directed. To this end we recommend the appointment of a Standing Board of Economic Development whose main functions should be :—

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491 to 503

Standing Board of Economic Development.

- (1) To advise upon proposals placed before Government for economic development whether native or non-native as they arise.
- (2) To watch over and promote the interests of industries under development in native areas.
- (3) To advise upon, obtain information as to the progress of, review, and under general instructions from Your Excellency's Government direct, the lines upon which economic development should be conducted in native areas.

PARA. (4) To direct the preparation for monthly issue in
516 the Official Gazette of reports on the lines
 adopted by the Tanganyika Trade and Information Local Advisory Committee.

501 608. This Board should be empowered to initiate lines of policy for the consideration of Government as well as to advise upon matters referred to it. We recommend that the Colonial Secretary be Chairman of the Board and that its membership should include a producer, a merchant, and the Chief Native Commissioner to ensure liaison with the Native Betterment Fund Committee when established.

139 to 609. Government has a function to perform in relation to native agriculture wider in kind than its function **141** in relation to the highly organized non-native industries. **141** We have concluded from the evidence that the degree of stimulus applied to native production in a district depends too much on the personal characteristics of the officer in charge and too little on a comprehensive plan of direction. **142** In our opinion co-ordinated action by Government officers along lines decided upon by the Government itself and fostered and maintained from headquarters can do much to improve the economic condition of the Colony.

610. We have dealt separately with the various industries in Chapter IV of our Report, recording the main features of each and the disabilities under which they are labouring as represented to us in evidence. Depressed prices on the export market and high cost of transport are among the principal disabilities common to practically all the industries. The Colony can do nothing to increase world prices on the export market and the costs of transport by rail and sea depend upon factors outside the direct control of the Government of the Colony. Railway and Port revenue sufficient to meet ordinary working expenditure and transport loan and other charges can only be derived from the traffic handled and a general reduction in rates can therefore only come about by an increase in the volume of traffic or a decrease in the fixed and other charges. We have suggested that some relief might be given to present users of the railway by arranging for the annual depreciation charges to be at a lower rate until some reduction in annual loan charges becomes possible on conversion of the 1921 loan in 1946.

Prices and
costs of
transport.

Railway and
Port charges.

Shipping charges.	With regard to shipping charges we recommend the establishment of a Standing Committee at Mombasa to maintain liaison between the Government, the producers and the local representatives of the shipping companies. We also suggest the appointment of a special Committee to consider the implications of the system of rebates.	PARA. 566 565
Organized industries.	611. Many of the principal industries under development by Europeans possess representative organizations which are able to ensure that proposals directly affecting these industries are brought to the notice of Government. In the case of some of these industries, notably the coffee, sisal, tea and sugar industries,	140 150 168 224 237
	the existence of representative organizations charged with the duty of watching over and promoting the special interests of these industries has seemed to us to make it both undesirable and unnecessary that we, under our terms of reference, should duplicate consideration of questions relating solely to these industries. On such questions, therefore, we submit no recommendations.	
Controlled marketing.	612. For certain industries which supply both the local and the export market we have recommended the adoption of the principle of controlled marketing under which the local price is regulated and the export market assisted by the local market. This principle has already been adopted in relation to the wheat industry; efforts to strengthen co-operation among dairy farmers have already been made with legislative authority by means of the Butter Levy Ordinance; and representations regarding the marketing of sugar and compulsory co-operation in the essential oils industry, have been under consideration by Government.	524 297 292 237 341
Controlled marketing of maize.	613. We recommend that the marketing of maize be organized under State control for so long as export prices remain at a low level. We regard the maize industry as an essential industry and consider that a national effort should be made to assist it and safeguard its interests. This national effort requires State control and State responsibility the object in view being to ensure an equitable distribution of the proceeds of sales on the local and overseas markets among all maize growers. Maximum prices for local sales form an essential factor in the adoption of a policy of organized marketing on these lines.	191 127 182 188 189

PARA. 614. Much the same considerations apply to the Butter marketing of butter. We believe that the future of the dairying industry depends upon co-operation among all producers of butterfat and we agree in principle with the enactment of legislation making such co-operation compulsory.

292 615. We recommend the introduction of compulsory Pyrethrum marketing through one organization for the pyrethrum industry also, to meet the necessity for grading, proper baling and uniformity.

356 335 616. We have also considered the question of compulsory Timber co-operation in relation to the timber industry but have concluded that the efforts made towards securing widespread co-operation on a voluntary basis should be given 151 a more protracted trial before any degree of compulsion 167 is applied. In the case of the coffee industry, we have Coffee. left the question to the Coffee Board; in the case of the Sisal. 224 sisal industry compulsion is regarded as impracticable; in Tea. the case of the tea industry no attempt at compulsory co-operation is considered advisable.

616. Our other recommendations relating to industries under development by non-natives may be summarized as follows:—

Other recommendations affecting non-native industries.

- 159 (1) We agree that the coffee industry should be able to share in the permanent and stable credit facilities on the lines offered by the Land Bank. This entails further funds for the Land Bank and a simultaneous increase in the monetary limits to advances.
- 483 (2) An essential industry such as maize should have Maize. the charges levied on it by the State Railways and Harbours adjusted so far as circumstances permit to the requirements of the industry, having due regard to the charges falling upon competing industries in other countries and we recommend that steps should be taken to have the matter further examined from this point of view by the Inter-Colonial Railway Council and Harbour Advisory Board.
- 199 (3) The interests of the mining industry require con- Mining. sidered plans of transport development, the adoption of a policy of planting suitable timber in areas adjacent to the mines and other facilities
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	which can readily be viewed comprehensively PARA.
	by a central Board but which do not respond so well to consideration separately as they arise by the various departments concerned. The Standing Board of Economic Development should enable the necessary co-ordination to be achieved.
Dairying.	(4) We consider it important that the establishment of creameries should be regulated and recommend that the establishment of a Control Board for the dairy industry should be examined by the Board of Agriculture who should be asked to indicate the powers to be given to such Board for the proper regulation of the Colony's dairy-ing industry as a whole and to go further into the question of finance. 293
Wheat.	(5) We do not consider that a case has been made out for an increase in the import duties on wheat and flour and suggest that, in the present circumstances of the world wheat market, the immediate objective of the local wheat industry should be to develop the local demand. This line of development appears to us to require a reduction in the local price of local flour. 294 307
Timber.	(6) We are unable to recommend additional expenditure on timber research at the present time but consider that two additional foresters should be appointed as soon as circumstances permit to enable work to proceed on the enumeration of the Colony's timber resources. We are satisfied that no real development of the export trade in timber can be attempted until the accessible quantities of the various kinds of timber are accurately known. We recommend that the rebate of royalties on timber exported from the Colony should for a period of five years extend to the whole of the royalty subject to review at the end of that period. 326 324 336
Fruit.	(7) We support the suggestion that an officer be appointed to the Agricultural Department for investigational work on fruit problems. 349
Pyrethrum.	(8) We submit for consideration the suggestion that the Imperial Government be approached in regard to the grant of tariff preference for pyre-thrum from Kenya when local production is in 359

- PARA.** a position to satisfy the whole of Great Britain's requirements and recommend that there should be a system of through Railway freights on pyrethrum for export. We consider that it should be possible for arrangements to be made for local pyrethrum to be mixed with kerosene in bond and recommend that a system of refund of duty on kerosene used for this purpose be approved only if such arrangements prove impracticable.
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- 358
- 205 to 219
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617. The hides and skins industry is mainly a native ^{Hides and skins.} industry. The evidence shows that improved methods of preparation greatly enhance the price and that the loss in economic value of hides and skins due to poor methods of preparation is enormous.
- Shade-drying has made considerable progress in certain areas but in others complete apathy is shown. We consider that immediate steps should be taken to institute a campaign in the Masai Reserve, the Northern Frontier and Turkana Districts, and other areas, for the shade-drying of hides and that steps should be taken by Government to place the marketing of hides on a basis under stricter control in order to ensure that advantages accrue from the better preparation of hides, that fair prices are given, and that sales are conducted for cash instead of under the system of barter which we are told is in general use in some of the trade centres. We also recommend that a one-line vote be inserted in Annual Estimates for the erection of shade-drying *bandas* and the provision of trained native supervisors to assist the poorer tribes where Local Native Council funds are not available for the purpose.
618. We are satisfied from the evidence given to us that the development now taking place in native areas is due in large measure to the appointment of fully-trained agricultural officers and that an increase in trained staff is a necessity to any determined attempt to promote further production in new areas. We recommend the appointment of agricultural officers for Kitui, Central Kavirondo and Baringo, and of assistant agricultural officers for Karatina, Lumbwa-Nandi, Digo and Teita. We are confidently informed that the appointment of each of these officers will within three years add not less than £20,000 per annum to the wealth of the district in which
- ^{Development in native areas—Appointment of additional Agricultural officers.}

the officer is working. We also recommend an increase in the staff of native agricultural instructors and in the travelling votes for the agricultural staff. We stress the importance of the co-operation and help of the Administration in providing the driving force in the campaign to increase native production and of the creation of a Standing Board of Economic Development to review progress and formulate plans of campaign.

619. We have noted the steps taken to develop dairying in native areas but are not satisfied that the appointment of additional veterinary officers for this work is necessary. In our opinion the first steps to be taken towards the improvement of dairying development in native reserves should depend on the appointment of additional agricultural officers assisted by animal husbandry assistants rather than of veterinary officers, the former being adequate to the immediate purpose and being able to help the development of dairying at the same time as they promote the agricultural interests of the reserves to which they are posted.

Overstocking. 620. We endorse the recommendations summarized in paragraph 2040 (a) to (e) and (g) of the Report of the Land Commission regarding overstocking in native areas and support the establishment and operation of a by-products factory at Eldalat (for which we understand a grant has been sought from the Colonial Development Fund) as a means of acquiring actual knowledge of the working of such a plant.

By-products factory. But we cannot regard the establishment of one or two by-product factories of a capacity of 10,000 head per annum each as likely to contribute substantially to the solution of the overstocking problem and we are of opinion that from a purely financial point of view it would probably be better to purchase the cattle, destroy them at once, hand the meat back for consumption and dispose of the hide than to face the capital and recurrent costs of conversion into by-products on any large scale. The best solution of the overstocking problem depends in our opinion on persuading the natives of certain tribes to eat more meat.

Tsetse fly. 621. We regard the tsetse fly position in certain areas as serious and endorse the recommendations in paragraphs 2019 to 2021 of the Report of the Land Commission.

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- PARA.** 622. Our attention has been drawn to the possibility of building up a trade in frozen meat with the Gold Coast and other West African Colonies, Palestine and the Straits Settlements. We recommend that inquiries be addressed by Government to the Governments concerned as to the possibility of securing an arrangement under which Kenya would be guaranteed a certain proportion of the market for a term of years. Search for markets for native meat.
- 427 to 438** 623. We regard the organization of native marketing with a view to the maximum and most profitable development of the native agricultural industries as an imperative necessity for the welfare of the whole community and recommend the introduction of legislation with this end in view. Organization of native marketing.
- 440** 624. Our proposals relating to the development of native agriculture entail additional expenditure, but we believe that money devoted to this purpose will be money well spent. We believe that a strengthening of the staff of trained agricultural officers will assist in further production of cotton, wattle bark, oilseeds and other important native crops and will simultaneously help towards the better preparation of hides and skins and the development of the native dairy industry. One of our conclusions on a review of the present financial position of the Colony was that, in the disposition of public services, a greater proportion of the resources available should be devoted to services calculated to increase production, particularly production for export. Our proposals for additional attention to be paid to the development of agriculture in native areas are an instance of the direction these services should take. Additional expenditure on production considered justified.
- 39** 625. Another instance is our recommendation for an increase of £500,000 in the capital of the Land Bank. Of all the money borrowed by the Colony, the funds borrowed for investment in the Land Bank are the only funds directly associated with production on the land. The Land Bank has already done a great deal to help agriculture in the Colony and from every point of view we regard an increase in the capital of the Land Bank as desirable. We recommend that the capital of the Bank be increased from £500,000 to £1,000,000 and that steps be taken to secure approval to further borrowing powers for this purpose. This recommendation is accompanied by and contingent upon the recommendation that on an Monetary limits. Increase in Land Bank capital.
- 441 to 461**

increase in capital, the monetary limit for an advance to any one farmer should be raised to £5,000, and the limit for an advance for discharging an onerous mortgage of prior date should be raised to £3,500.

**Arrangements
for Land
Bank to draw
capital as
required.**

626. We also recommend that on an increase in the capital of the Land Bank the arrangements hitherto in force whereby the Land Bank draws money from authorized capital as required and pays interest only on the money so drawn should continue to apply, but in order to safeguard the interests of general revenue we suggest that Government should charge the Bank interest at the rate of $\frac{1}{2}$ per cent above the interest which the Government itself pays for the money until any expense incurred on that account has been reimbursed.

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**"Onerous"
mortgages.**

627. We are opposed to any amendment in the present law which prohibits the Land Bank Board from making an advance for the purchase of an existing mortgage unless such mortgage is deemed onerous.

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Bearer Bonds.

628. We have examined proposals placed before us for a wider measure of State intervention in agricultural finance by means of the issue of bearer bonds guaranteed by Government against existing mortgages. We are unable to recommend the adoption of any scheme of the kind suggested.

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**Trade repre-
sentative for
India and
Ceylon.**

629. We urge that steps should be taken as soon as possible to appoint for a period of two years in the first instance a trade representative in India who should also be responsible for Ceylon. His duty should be to explore the Indian and Ceylon markets with a view to promoting trade in Kenya products including the establishment of commercial contacts. He should not be encumbered with minor additional duties. Liaison with his work should be maintained through the Secretary of the Standing Board of Economic Development.

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Tourist traffic.

630. We stress the importance of developing the tourist traffic and recommend that an additional grant be made to the Kenya Association for this purpose. We draw attention to the need for co-ordination in publicity and advertising work and suggest that publications issued under the aegis of the Kenya Association should be issued under the authority of the Colony.

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PARA. 631. No programme for developing the Colony's Water resources has been worked out in sufficient detail for us to suggest that any sum of money be set apart for this purpose in the near future. We stress the importance of placing the water law of the Colony on a proper footing, a step which in our opinion is essential to the proper development of the Colony's resources.

547 632. We have considered various proposals for the improvement of road communications in the Colony with particular reference to the advisability of asking for additional loan funds for this purpose. We consider it of major importance on economic grounds that funds should be provided in 1935 for the construction of a bridge over the Athi River between the Machakos and Kitui Districts and recommend that, if funds cannot be found from revenue or by grant from the Colonial Development Fund, borrowing powers be sought to obtain the necessary money from loan. We are unable to recommend that loan funds be borrowed for the Lumbwa-Kericho Road which in our opinion can be maintained in a reasonable state of repair from revenue, but recommend that borrowing powers be obtained to enable the road plan to serve the mining areas to be carried into effect when agreed upon.

552 633. In connection with the recommendations for an increase in Land Bank capital and for borrowings to develop road and bridge communications, we recommend that the possibility of raising money locally should be closely examined.

554 634. We have considered a suggestion that in order to reduce the sterling value of local costs of production to a figure comparing more favourably with sterling prices on the export market the present parity of twenty East African shillings to one pound sterling should be changed and some lower value should be placed on the East African shilling. This suggestion, in the circumstances of Kenya, is incapable of practical application.

555 600 East African currency is linked to sterling by ties which it beyond the power of any one of the East African Dependencies to affect in any degree. The credit of all three East African Territories is pledged to the maintenance of the currency's parity with sterling which has been prescribed by law in terms as definite as the law can make them. The basic law governing East African currency is an Order in Council which cannot be changed without

Possibility of raising a loan locally.

Monetary policy.

action by His Majesty's Government, and the Secretary PARA.
of State, on his recent visit to the Colony, announced the
decision of His Majesty's Government that there shall be
no alteration in sterling parity.

Export prices.	635. The fall in export prices lies at the root of Kenya's economic difficulties and a rise in sterling prices would go far to provide an effective remedy. In addition to the world condition of depressed prices for primary produce, Kenya has experienced adverse agricultural conditions through the incidence of drought and locusts. All these factors have combined to make the position a highly precarious one. Public loans floated in London in times of high prices at high rates of interest throw an annual burden on to the Colony and transport system which in present conditions can only be met by the export of many times the quantity of produce thought to be required to satisfy those charges at the time the obligation was incurred. Unilateral conversion of these high interest bearing loans is impracticable until the loans mature; nevertheless, in respect of its loans we believe that Kenya is labouring under a disability which is shared by a large part of the Colonial Empire and we feel that a strong case exists for an examination by the Imperial Government of the problem as it affects the Colonial Empire in order to devise some measure of relief by the consolidation and conversion of present Colonial loans which would result in annual payments by the Colonies more commensurate with their ability to pay.	567 597 107 568
Adverse agricultural conditions.		
Loan charges.		
Conclusion.	636. Our investigations have been conducted on the supposition that relief either by an increase in export prices or by a reduction in annual loan charges cannot be relied on to provide an immediate remedy and that the Colony must do everything it can to increase its output and secure such benefits as the internal organization of marketing can bring. Much is hoped for from the development of the gold fields. These are bringing large amounts of capital into the country and the resulting exports of gold will have a substantial effect on the Colony's balance of trade. In the agricultural industries we feel sure that Your Excellency's Government will continue to give sympathetic consideration to proposals submitted on their behalf by the representative organizations concerned and that co-ordination in such work as well as the promotion of the interests of the industries	

at present unorganized will be materially assisted by the appointment on the lines we have recommended of a Standing Board of Economic Development.

637. This Report has been framed on lines which show the conclusions reached and the recommendations made by the Committee as a whole on each of the various matters concerned. In the form of a majority report in which it is presented it does not meet the views of all the members of the Committee on all the subjects dealt with and certain members feel that the Report as drawn up does not present a real or adequate appreciation of the difficulties with which the country is contending. The members concerned have prepared notes of dissent and minority reports which are attached as addenda to the main Report.

Addenda to the report.

G. R. SANDFORD, *Chairman.*
 S. H. LA FONTAINE.
 H. B. WATERS.
 S. THORNTON.
 THOS. J. O'SHEA.

Nairobi,

17th October, 1934.

V. LIVERSAGE,
Secretary.

Postscript: We should like to conclude this Report by recording our great appreciation of the work of our Chairman, Mr. G. R. Sandford, O.B.E. He has presided over our meetings with unfailing tact and patience; he has spared no efforts in the compilation and presentation of statistical and other information for our use; and the ability with which he has conducted our debates, ranging over wide and difficult subjects, has materially lightened the work of the Committee.

S. H. LA FONTAINE.
 H. B. WATERS.
 S. THORNTON.
 THOS. J. O'SHEA.

NOTE BY MR. T. J. O'SHEA.

I have signed this Report, even though it expresses views with which I am not in sympathy, because the situation is one that demands the largest possible measure of agreement between Government and the people as to the steps that can and should be taken to assist the country's economic recovery.

Least of all am I in sympathy with a policy of endeavouring to strengthen Government finances by intensifying native production for export. If it be unfair to Lancashire cotton spinners that they should have to sell their labour against the competition of operatives in other parts of the world where a standard of living costing less to maintain is readily accepted, is it any less unfair to the civilized farmers of this and other countries that Government should deliberately stimulate the competition against them of unpaid woman and child labour?

The Report contains a number of proposals which if acted upon immediately and with vigour will go a long way toward assisting the country's economic recovery.

THOS. J. O'SHEA.

ADDENDA.

- I. Minority Report by Major F. W. Cavendish-Bentinck, Captain C. B. Anderson and Colonel G. C. Griffiths.
 - II. Notes of Dissent and Minority Report by Mr. D. D. Puri.
-

MINORITY REPORT

BY

MAJOR F. W. CAVENDISH-BENTINCK, CAPT. C. B.
ANDERSON AND COL. G. C. GRIFFITHS

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YOUR EXCELLENCY,

1. We regret that we find ourselves unable to subscribe to the report as formulated upon the terms of reference entrusted to us in March, 1934, and as published in the Government Gazette on the 20th March. (Government Notice No. 211).

2. Furthermore, we find it necessary to refer especially to paragraph 637 of the main Report in view of the reference made therein that it had been "framed on lines which show the conclusions reached and the recommendations made by the Committee as a whole on each of the various matters concerned." When the Report was presented to the Committee several members indicated that it did not concur with their views. On pointing out their difficulty to the Chairman, he ruled that any expression of opinion given during consideration of the Report would not be considered as the opinion of the member with reference to the policy or the subject-matter of the Report but purely as his opinion as to the better wording to be adopted. On many occasions when a vote was taken, it was made clear that the member voting, although not in accord with the subject-matter under consideration, was expressing an opinion in the interests of the Committee as to the best method of stating the case. It was made abundantly clear that members of the Committee, by taking part in the consideration of the Report, in no way committed themselves to be associated therewith. Although, as will be seen, there are many conclusions and recommendations arrived at by the Committee with which we are in agreement, we do not consider that all the recommendations contained in the main Report are those of the Committee as a whole on each of the chapters as a whole.

3. As a result of a long and exhaustive study of the data placed before us, and of our own particular knowledge of the conditions and circumstances of the Colony, we are of opinion that the Report as drawn up has failed to give adequate consideration to the fact that prices for export commodities over practically the whole field are less than the costs of producing them, and that partly owing to this omission and partly owing to the method of approaching the problem, the general picture presented by the main Report tends to create a false impression to the reader. Furthermore, it does not present a real or adequate appreciation of the difficulties with which the country is contending, and that many of the recommendations so drawn up represent a policy of expediency no more ambitious than to ameliorate some of the disasters that have overtaken the producers of this Colony.

4. Too ready an acceptance, we feel, has been given to the supposedly unalterable nature of the factors that have brought

about such widespread depression amongst all races and sections of the community. Proposals for the stimulation of production, particularly from the native reserves of the country, have been made without due appreciation of the relationship of present costs of production to existing commodity prices in an urgency to swell the figures of visible exports.

5. For the burden of debt that is carried, the volume of exportable surplus, particularly from native sources, is deplorably low, but to seek to improve the Colony's balance of trade by a concerted campaign to stimulate production at present prices in native reserves on the grounds that the native's costs of production are negligible, savours more of a desire to raise the natives' capacity to pay existing taxes than to provide him with a margin of reward for his efforts.

6. The sequence of events preceding the appointment of the committee go back further than the discussions in Legislative Council immediately responsible for its appointment.

7. The condition of the country during the years 1925 to 1929 was undoubtedly one of prosperity. High export prices, a growing volume of exports and a considerable, perhaps excessive, inflow of capital for loan works as well as for private development, were the basic conditions of this prosperity. Kenya, in common with many new and developing countries with an attraction for the investor, drank rather deeply of the exhilarating wine of prosperity and spent rather more freely than prudence would have dictated.

8. It was not to be expected that the economic disorganization which followed the collapse in world prices of commodities and which overtook one country after another in rapid succession would leave the Colony unaffected. In fact, the repercussions of the collapse were naturally to be more severely felt in those countries, particularly of the new world, whose orderly progress and economic future were primarily dependent on the economic stability of older countries who provided for them a steadily expanding market, and who in turn were to be rewarded in finding new outlets for their own products.

9. The Colony was particularly susceptible to attack. Not only was it engaged in an ambitious programme rather more lavish than its state of development justified, but its agricultural practices were still at the experimental stage. New diseases were constantly harrying the planter; little research had been done; experience of the peculiar conditions of the country was being laboriously acquired; labour was not very efficient and markets were not so discriminating as they are to-day.

10. It was a period of boom conditions with Government sounding the note of optimism. It is not to be thought that Government were alone in their optimism. It would be more true to say that the buoyant conditions obtaining set a standard of endeavour unrelated to realities. In the light of to-day blame, if it is to be apportioned, must be laid equally upon all sections of the community.

11. Too little attention was paid to those who foresaw the inevitable weakness of the position and when the depression struck Kenya there was a lag in setting in train the processes of readjustment. Had the causes and the extent of the depression been merely due to a periodic recession of prices, the readjustment, whilst entailing some hardships, would have been salutary in effect and the Colony would have emerged strengthened by the stimulus of temporary adversity.

12. But the difficulties of our own position have been aggravated and the Colony brought to the point of disaster by the grave disturbance of the economic world as a whole.

13. No process of adjustment can possibly be effective that ignores and is unrelated to the circumstances that have given rise to its necessity. It is, therefore, in our opinion essential firstly to examine the basis of the Colony's economic prosperity; secondly to measure the effects of the depression upon the internal economy; and thirdly to propose measures directed to bring about economic recovery.

14. The progress that has been made in the development of the Colony has been almost exclusively based upon its agricultural resources. The country was first opened up for settlement at the beginning of the present century. The abundance and variety of its animal life has drawn visitors from all corners of the earth and many of the early pioneers can trace their first attraction to the Colony in the desire to shoot, photograph, or see its big game. Steady progress was being made in the extension of trade and development until the war intervened. It is in the period following the war that important and rapid strides were made.

15. Land came rapidly under cultivation and the values of agricultural commodities exported from the Colony which in 1914 were £208,611, rose in 1920 to £948,737, and in 1924 had reached a figure of £2,149,776.

16. In 1930, the first relatively important discoveries of gold were made. It is as yet too early to assess the value of the finds made. The greater part of the work at present being carried out in the gold fields has been on prospecting. The results of this

work are now about to be realized and reduction plant is being installed on some of the properties. That the production of gold is likely to have an important bearing upon the internal economy of the country is undoubted. Nevertheless, so long as the vast majority of the natives of the Colony and of those who have made their homes here are engaged primarily in the development of its agricultural resources, the prosperity of the Colony will be inseparably bound with the economic welfare of its primary producers.

17. In 1921 the first of a series of loans was raised upon the credit of the Colony and an ambitious programme of development of the transport and other services was set in train to deal with the expansion of trade which was anticipated would follow the intensification of development. The loan expenditure of the Colony will be considered in greater detail in a later section.

18. Synchronizing with this period of loan expenditure was a period of extensive development. Increased areas went under cultivation; new capital for all enterprises was rapidly available and trade flourished.

19. It is at this stage that the impact of the world-wide depression has made itself felt, and since the whole edifice of the Colony's economic prosperity has been based upon the efforts of her primary producers, an examination of the conditions with which some of the industries are faced will give a clearer understanding of the effects of the depression on the Colony's internal economy and of Government's budgetary position.

20. In our examination of the various industries of importance to the Colony, we have selected only a few for reference in our Report. We have not been guided in our selection because of any exceptional conditions which are not common to them all, but largely because they represent numerically the greater number of individuals engaged in their production whether native or non-native. Furthermore, we have deliberately refrained from dealing with what may be described as their secondary problems believing that not only are the industries themselves better equipped for the proper presentation of such factors, but also because we believe that the most urgent and the most fundamental of their problems relate to the preservation of their very existence.

21. In outlining their position we have sought to illustrate the conditions of each industry by quoting the relative statistical data available to us and to reserve our appreciation of the effects of such conditions on the general economy of the Colony to a later section of our Report.

CHAPTER II**THE INDUSTRIES****COFFEE.**

22. Coffee takes first place in importance in the domestic exports of the Colony. Its place in the internal economy of Kenya is supreme. The crop is intrinsically valuable and its place in the world's market is peculiar because of its special blending properties.

23. The area under coffee according to the Agricultural Census for 1933 is as follows :—

Year	Total Area	1-3 Years	3-6 Years	6 years and over	Percentage Increase
1933	Acres 100,387	Acres 16,275	Acres 23,943	Acres 60,169	1.53
1932	98,874	20,199	23,692	54,983	2.26
1931	96,689	23,677	22,561	50,451	*0.67
1930	96,042	24,970	23,805	46,267	6.47

*Seven months only.

24. The acreage in production may be said to be all that bearing trees of three years and over, i.e. 84,112. Not all of this is fully in production and whilst high figures of production per acre over a period of years are quoted by some estates, the general average probably does not exceed 4 or 5 cwt. per acre.

25. Early in 1933 the Coffee Board of Kenya was formed by enactment for the advancement and control of the coffee industry. The membership of the Board consists of three Government nominees, six planters appointed by election, and two representatives of the coffee trade. An amending Bill provides for the withdrawal of the trade representatives on the formation of a Coffee Trade Association and the substitution of two planters to their seats on the Board.

26. The policy of the Board is directed towards (a) an increased return to the grower; (b) a reduction in the costs of distribution; (c) finding new outlets for Kenya coffee; (d) organizing the industry on an efficient basis; (e) organizing marketing and publicity; (f) research and improvement in quality; (g) the general advancement of the industry.

27. The Board has represented to us that it is their proper function to originate and develop plans for the advancement of the coffee industry. With this view we are in agreement. It is

our view that the Economic Development Committee is concerned primarily in the consideration of the part played by the coffee industry in the general economic life of the Colony, and to examine in that light the handicaps under which it suffers.

28. In 1933 the Coffee Board sent out a questionnaire for statistical purposes. Of a total of 942 planters replies were received from 559 who represented an acreage of coffee totalling 74,056 or 75 per cent of the total acreage under coffee. Of the 559 planters, 412 represented 63,468 acres and 75 per cent of the total production. The difference between these 412 planters and the 942 enumerated in the census consist of 530 planters whose individual crops are at present negligible and whose combined crop is less than 25 per cent of the total production.

29. Of the 412 representative estates, equivalent to 75 per cent of the industry, the commitments total :—

Mortgages	...	...	...	£683,626
Banks	...	...	...	221,782
Agents	...	...	...	154,172
Sundry creditors	...	...	...	31,009
Land Bank	...	...	...	74,969
<hr/>				
Total	...	...	£1,165,558	
<hr/>				
Private money invested	...	...	£3,385,751	

30. These figures represent 75 per cent of the industry and assuming the remaining 25 per cent is committed and has invested in the same ratio, the total indebtedness of the industry is £1,500,000 and the total private money invested is in the region of £4,500,000.

31. The condition of the industry is still one of semi-development and we were advised that the tendency is for larger producing units given certain qualifications as to suitability of area, adequate capital for development, and efficient control to be less heavily weighed down by interest charges.

32. "The coffee industry, generally, has been started with comparatively small capital and by the time plantations have reached the producing stage, it has been necessary to borrow further capital and the greater proportion of profits has been returned to development."

33. "Coffee is susceptible to pests, and disease, and the crop losses and control expenses involved in recent years have been beyond the anticipation of planters. These losses and heavy expenses have been coupled with a steady fall in price".

34. "These two factors have only been met by drawing to the full upon reserves, in many cases by the actual raising of new capital and in general, by straining credit resources to their uttermost limit."

35. "Weather conditions generally, and this year's drought in particular, affect the coffee planter more seriously than other farmers since plantation expenses are high and in certain cases higher under adverse conditions than in normal seasons."

36. It is difficult to give figures of costs of production. The industry is in a transition stage. Many estates are more favourably situated and have emerged from their development stage. Interest charges on some estates play a negligible part in the costs of production, whilst upon other estates they have become a crushing burden.

37. In an examination made in 1931-32 of a series of estates of the Kiambu, Ruiru and Thika districts, an average cost of production taken over a period of three years of £48 to £50 per ton was arrived at. These costs which exclude interest charges have since come down; nevertheless, in evidence we were informed that taking the industry as a whole the cost of production as supplied to the Coffee Board by growers average £59 per ton exclusive of interest. The members of the Board considered this cost was higher than the actual costs of production. To these figures must be added £17 per ton for curing and marketing.

38. The average interest charge has been given as £10 per ton of coffee produced, but here again the figure is open to qualification since a considerable percentage of the estates who furnish returns were either in no way committed or very lightly. The burden of interest becomes the heavier on those estates not so fortunately situated.

39. The position discloses the great need of the industry to participate in the more favourable interest charges offered by the Land Bank to those farmers who are fortunate enough to come within its scope.

40. The main hopes of future prosperity lie, however, with the majority of planters in a return to more remunerative prices.

41. Although costs of production have been reduced we are advised that the reduction has not been such as to overtake the fall in price. There is an important percentage of estates which even at present prices can produce and market at a profit. A large number that can cover their costs but the majority of estates are either too heavily burdened with interest charges, unfavourably situated or whose costs are considerably higher than can be met on present returns.

42. The suspension of farming activity is much more serious in the case of coffee than in that of other crops. Serious damage results immediately a plantation begins to get neglected; too great curtailments of expenditure will not only lose crop but will result in harm to the permanent improvement of the land and cause lasting damage to the industry.

43. Coffee planters have maintained and actually improved the value of their land in recent years and have saved the Colony's biggest asset from depreciation, but at the cost of heavily committing the industry.

44. There is no doubt that in many instances reconstruction will be necessary, but this matter we regard as within the province of the Coffee Board and the concern of individual farmers.

45. The value of the coffee industry to the Colony is disclosed in the following figures taken from the Customs Report of quantities and values of coffee exported :—

Year	Quantity Exported	Approximate f.o.b. Value	Average f.o.b. Value per Ton
	£	£	£
1928 ..	211,663	1,119,894	105·8
1929 ..	133,234	703,158	105·6
1930 ..	310,168	1,427,536	92·0
1931 ..	245,991	986,988	80·2
1932 ..	276,041	1,214,392	88·0
1933 ..	257,214	832,353	64·8

46. For the purpose of comparing the 1934 prices with those obtained in previous years, the following figures represent the realization of "fair average quality" at the Nairobi sales during the present year :—

Month.	Average price per ton.				
January	£46
February	£48
March	£47
April	£46
May	£46
June	£44
July	£44
August	£42
September	£42
	Average ...				£45

47. To ascertain the net return to the grower there has to be deducted the sum of £3 for cleaning charges and the transport costs of getting the coffee from the farm to Nairobi. Whilst the f.o.b. value would represent an additional charge on the sale realizations of approximately £3-6-0.

48. Although the figures given in the Customs Reports of the f.o.b. value of coffee exported are to be used with reserve, nevertheless taken in conjunction with the present f.o.b. average price a rough guide to the fall in price of coffee can be computed. Using 1928 as a base figure of 100 the result is :—

Year	Average f.o.b. Value	Index
	£	
1928 ..	105.8	100
1934 ..	45	43

Or a fall in price of approximately 57 per cent.

49. We understand that there has been a wide difference in the costs of production figures as given by various estates, but if we take the industry as a whole and assume that the costs of production are no more than £50 per ton, exclusive of interest, it is clear that the industry is in serious jeopardy. There are many soundly established and favourably situated estates that could continue under present prices, but the great majority are not so placed. We have regarded the function of this Committee as being primarily concerned with the preservation of the Colony's industries as a whole and, in the light of this interpretation of our task, we view with apprehension the prospects of survival of a large number of estates unless prompt and decisive action is taken to save them from collapse.

SISAL.

50. According to the Agricultural Census the following are the figures of acreage and production for the years 1927-28 to 1933.

Year	Total Area	Age of Plants		Actual Production of Fibre
		Up to three years	Three years upwards	
1932-3 ..	Acres 139,834	Acres 37,507	Acres 102,327	Tons 17,369
1931-2 ..	145,660	55,220	90,440	14,674
1930-1 ..	137,299	68,328	68,971	18,858
1929-30 ..	138,012	72,462	65,550	17,321
1928-9 ..	109,375	55,178	54,197	15,809
1927-8 ..	91,909	43,288	48,621	14,737

51. In the ordinary way the acreage over three years can be taken as that in production but at present there are some estates which have been unable to provide finance to purchase machinery to bring them into production, but no figures are available as to the acreage such cases represent.

52. The peak period of planting activity was reached for the year 1929-30 when the acreage of plants up to three years old was 72,462. The planting programme appears from that time to have been severely curtailed and in 1932-33 had fallen by half. The ordinary life of the sisal plant is taken as seven years, the last four of which provide three years of good cutting with a final clean up in the seventh year.

53. A disturbing factor disclosed by the census figures is the serious lag that has taken place in maintaining the development programme. It is not clear how far inter-planting has been recorded by the census but so great has been the fall in the acreage of plants up to three years old that on some estates normal rotation cannot have been maintained, this must result in a falling off of actual production within the next few years.

54. As an indication of the economies which sisal estates have made it should be noted that in 1930 the average cost of production on reasonable sized estates was assessed at approximately £31 per ton c.i.f., as compared with the present approximate cost of Sh. 282-50 or £14-2-6 per ton c.i.f., which latter figure excludes development cutting out. Until recently the cost of development of sisal was taken to be Sh. 60 to Sh. 80 per ton and in so far as estates are still cutting the older areas, this figure must still apply. Recent improvements and methods of planting have reduced this cost to something between Sh. 30 and Sh. 50 per ton.

55. In so far as transport and selling costs are concerned the following comparisons are interesting :—

	1930		1934	
	Sh.	cls.	Sh.	
Railage	30	00	30	
Coastal Charges	16	00	16	
Ocean Freight	80	00	60	
Insurance	4	50	2	
Commission and Exchange	20	00	8	
	Sh.	150 50		116

56. Part of the difference is, of course, accounted for by higher prices which offset such items as insurance, exchange, and selling commission. It will be noted that there has been no reduction in railage or port charges in spite of the fall in the price of sisal.

57. A more detailed statement of sisal production costs prepared by the Kenya Sisal Growers' Association is given below. These figures are based on a steady economic production. Estates not fully in production would show increases in these costs whilst new estates with large production could possibly produce more cheaply. Railage is dependent on the situation of the estate and ocean freight on the baling pressure used.

APPROXIMATE COSTS OF CUTTING AND SHIPPING SISAL

	<i>Sh. cts.</i>
ADMINISTRATION CHARGES (Including Salaries, Bank Charges, etc., but assuming no Overdraft) .. .	30 00
WORKS CHARGES—	
Cutting	16 00
Moving and Laying Rails	5 00
Loading and taking to Factory	7 00
Decorticating, including Unloading .. .	6 00
Drying and Boiling	6 00
Sundry Staff, etc.	2 00
Recruiting Native Labour	3 00
Factory Materials	4 00
Transport Materials	5 00
Repairs and Renewals :	
Factory Buildings	12 50
Transport Vehicles	2 50
Upkeep of Motors, including Petrol .. .	3 50
Live Stock Expenses (including Losses) ..	5 00
Insurance	3 00
Sundries	5 00
DEPRECIATION (excluding Development Cut-out) .. .	85 50
Rail and Shipping Charges as above .. .	116 00
	281 50
To this figure must be added a Cess of Sh. 1 per ton of Sisal shipped as from 10th May, 1934, to which Government contributes a further Sh. 1 per ton up to a maximum of £1,000	1 00
Making a Total Cost, c.i.f. London or European Port, excluding Development Cutting-out of	282 50

58. In dealing with the question of costs the Sisal Growers' Association write : "it is difficult to see how further economies can be made. For some considerable time the staff on estates (both European and native) has been reduced to the absolute minimum. There is on the contrary the possibility that labour will tend to cost rather more, especially in view of recent increases in the price of posho. Any further tendency of costs must be upward, because as the price has for some time been below costs of production, repairs, replacements, etc., have been reduced to a minimum and this may tell to some extent in future years".

59. The average sale prices ruling in London over a period of years have been :—

					Price per Ton of No. 1 Sisal
					£ s. d.
1928	..	..	..	..	39 0 0 to 41 10 0
1929	..	..	..	..	39 0 0 „ 41 10 0
1930	(1st half)	..	..	..	34 0 0 „ 35 10 0
	(2nd half)	..	..	..	25 0 0 „ 28 0 0
	(At close of 1930 stood at £28 10s.)				
1931	(Early)	..	..	..	16 0 0 „ 17 10 0
	(Later)	..	..	..	16 0 0 „ 16 10 0
1932	(Early)	..	..	..	14 0 0 „ 14 10 0
	(During July, No. 1 dropped to) But later recovered to				12 0 0
		..	..	..	16 0 0
1933	For first six months	..	..	..	14 15 0 „ 15 10 0
	By October, No. 1 was selling at	..	..	..	18 2 6
	But later dropped to	..	..	..	15 0 0
1934	Prices gradually rose again up to June to	..	..	..	17 2 6
	But since then have receded to	..	..	..	13 15 0 „ 14 0 0

For No. 2 sisal the difference in price from that quoted during 1929–30 was between £1 and £2 per ton lower. Latterly the price has varied between Sh. 10 and Sh. 15 per ton lower.

60. The quantities and values of exports of sisal for the past few years as given by the Customs Report are as follows :—

Year	Sisal	Tow	Sisal	Tow	Total
	Tons	Tons	£	£	£
1928	15,606	910	477,593	18,366	495,959
1929	14,663	984	526,601	26,971	553,572
1930	14,939	1,008	418,894	18,375	437,269
1931	15,482	512	226,144	6,420	232,564
1932	14,829	556	181,289	5,286	186,575
1933	19,140	710	243,352	6,516	249,868

61. In the figures of costs of production, no charge for interest on borrowed capital has been given. At the present London market price of £14 per ton there is on present figures of costs a loss of Sh. 2/50 per ton to which must be added interest charges and the costs of bringing sisal to the cutting stage. This figure has been variously estimated at between Sh. 60 and Sh. 80 per ton on older areas, and at Sh. 30 to Sh. 50 per ton where improved methods have been used.

62. Using the price in 1929 as a base the percentage fall in the price of No. 1 sisal has been as follows :—

Year.	London price average.	Index.
1928	£40	100
1934	£14	35

Or a fall in price of approximately 65 per cent.

63. It is clear from a consideration of these figures that the industry to carry on must be drawing upon its capital resources. A serious aspect for the future is the inability of many estates to keep up their planting programme in order to maintain their proper rotation.

MAIZE.

64. The problems of the maize industry call for very special consideration. It is one of the basic crops of the Colony. Not only is it the staple food of most of the natives and an insurance against famine, but large areas of the country, particularly in the Highland belt, are more suited to its cultivation and the cultivation of other cereals than of any other forms of farming.

65. Maize is easily grown, well suited to both European and native production, relatively free from disease, and provides a bulk commodity of importance to the transport system of the Colony.

66. These features were emphasized in the report of the Economic and Finance Committee of 1922 when a strong recommendation was made that in order to establish financial and economic equilibrium it was necessary with the least possible delay to foster and develop an export trade in some easily produced local bulk commodity for which there was a virtually unlimited demand in the markets of the world.

67. An immediate stimulus was given to the production of maize by introducing an export rate on the railway system of Sh. 1 per bag, combined with the high prices ruling during the period 1924-28.

68. The development of the industry by European growers is reflected in the figures given in the Agricultural Census. The figures of native production during the same years are unknown.

Year	Acreage Harvested	Total Yield	Average per Acre
	Acres	Bags	Bags
1922-3	74,747	517,877	6.93
1923-4	108,556	833,640	7.68
1924-5	129,647	893,108	6.89
1925-6	155,751	926,614	5.95
1926-7	177,987	1,314,643	7.39
1927-8	177,009	1,088,706	6.15
1928-9	204,945	1,099,317	5.36
1929-30	233,973	1,858,586	7.94
1930-1	200,926	1,649,728	8.21
1931-2	160,546	762,622	4.75
1932-3	164,018	1,139,616	6.94
1933-4	112,949	746,893	6.61

NOTE.—On an average the number of bags produced per acre in the Colony is higher than is grown in the great maize producing countries of Argentine, South Africa and Rhodesia.

69. The Colony has thus returned to the stage reached when the first major increase in production was made following the recommendations of a body set up in 1922 with terms of reference similar to our own.

70. The disposal of the European production in each calendar year is given as follows :—

Year	Production	Locally Consumed	Exported Maize and Meal	Value Exported
	<i>Bags</i>	<i>Bags</i>	<i>Bags</i>	£
1928	1,088,706	658,490	430,216	354,768
1929	1,099,317	651,937	447,380	326,660
1930	1,858,586	592,857	1,265,729	586,851
1931	1,649,728	612,584	1,037,144	425,041
1932	762,622	475,428	287,194	119,133
1933	1,139,616	500,668	638,948	218,801

71. During the years 1928, 1929 and 1932 the production of maize in the Colony was adversely affected by locusts resulting in lower yields and food shortage in the native reserves.

72. The average price movements on the London market for the years 1928 to 1934 are given below. Corresponding with these prices is given the price per bag f.o.r. Sender's Station which would be realized on export sales.

Year	Average London Price Per Quarter	Realization f.o.r. Senders' Station Per Bag	
		Sh.	cts.
1928	40 0	12	90
1929	39 4	12	63
1930	26 9	7	56
1931	18 4	4	16
1932	20 4	5	51
1933	18 9	3	87
1934	24 0	—	

73. Owing to the heavy fall that took place in the London price of maize in 1930, Government came to the assistance of the maize industry by authorizing the refund of the whole or part of the railway rates and port charges to the extent of £35,000 to enable the industry to readjust itself to the altered price. Again in 1930-31 a loan free of interest was made to the industry guaranteeing a minimum return to the grower of Sh. 6 per bag f.o.r. Kenya and main-line stations in respect of that export crop. This loan is due for repayment from the industry when prices return to an agreed figure.

74. The 1931 Maize Conference gave costs of production as Sh. 7/93 per bag free on rail senders station including in this figure Sh. 1/18 per bag for depreciation on implements and fertilizers but excluding charges for branch lines.

75. The present cost of production on the same basis of calculation is :—

Sh. 5/44 excluding depreciation, fertilizer and branch line rates which average 13 cents per bag.

76. The marketing costs of exporting maize are as follows :—

	Per Ton
	<i>Sh. cts.</i>
AUTAGE TO STATION (Average 50 cents per bag)	5 50
RAILWAY—	<i>Sh. cts.</i>
Railage (including Branch Line Charges) 15 00	
Siding Charge 20	
Wharfage 5 25	
Port Storage 25	
	20 70
COAST AGENTS 50	
Grading 55	
Re-sewing, Marketing,etc. 25	
Telegrams and Labels 25	
	1 55
Spent in the Colony per Ton Exported	27 75
Ocean Freight	19 25
Superintendence, London Charges and Commission	40
Interest, Insurance, Loss and Exchange—4·64 per cent.. ..	4 33
Eleven bags at 62 cents	6 82
	Sh. 58 55

77. This means that the actual cost of shelled grain from the farm to the London market is Sh. 58/55 per ton. Maize at Sh. 20 per quarter = Sh. 93/33 per ton. This means the net return to the grower is Sh. 34/78 per ton or Sh. 3/16 per 200 lb of shelled grain on his farm, and if the overseas price is Sh. 19 per quarter the net return is Sh. 2/76 per 200 lb. to the grower.

78. On the basis of the figures given above for costs of production and marketing, the London price of maize must rise to approximately Sh. 24/8 per quarter before the growers' costs (branch line) on export are returned to him.

79. With the fall in world prices and general depression the Railway Administration, owing to its reduction in traffic, has in order to balance its budget increased the export railage and port charges on maize from Sh. 16/20 to Sh. 18/75 per ton, while the shipping companies have increased their freight from Sh. 17/50 to Sh. 19/25. These added costs of marketing have aggravated the difficulties of the producer and reduced his net return.

80. The Kenya Farmers' Association (Co-operative) Ltd., a registered co-operative society, handle 90 per cent of the European-grown maize in the Colony. The other maize producers are natives whose maize is principally consumed locally. The figures of native maize exported as given in the Agricultural Census are estimated at :

Year	Quantity <i>Cwt.</i>	Value	
		£	£
1928	142,500	50,000	
1929	112,000	45,000	
1930	293,000	75,000	
1931			
1932	54,700	12,500	
1933	190,000	36,000	

The balance of native production sold for local consumption is estimated at between 300,000 and 400,000 bags annually.

81. The policy of the Kenya Farmers' Association is and has been directed to maintaining the internal price of maize for local consumption above the export parity to offset in the pool pay-out the loss incurred on export sales. The effect of this policy has resulted in those who are not members of their organization benefitting in a considerable measure from the more favourable price obtainable from local sales.

82. The maize industry has been accepted by the Colony as a national one. In 1929, when famine became likely in certain native areas, the Government felt themselves called upon in the interests of the Colony to introduce legislation to control the sale of maize and so depriving growers of maize of the benefits they could have reaped by demanding high prices for their produce.

83. The high price of maize at the moment of Sh. 24 per quarter representing Sh. 5/54 per bag main line to the grower is entirely due to the drought conditions existing in the United States of America and the poor harvest in the Argentine following on the drought in South Africa—a combination of circumstances which cannot be anticipated to recur.

84. Therefore, in viewing the position of the industry while world conditions remain unaltered the present price to the grower cannot be looked upon as one likely to continue in future seasons. Nevertheless, despite this fortuitous increase the relative fall in price as compared with 1928 is as follows :—

Year	London Price per Quarter	Index
1928	£40	100
1934	£24	60

Or a fall in price of approximately 40 per cent. The net return to the grower being reduced still further by increases in transport costs.

85. The present price of Sh. 5/54 per bag main line station returns to the grower a profit of 10 cents per bag if no depreciation is included. Where branch line rates are payable the loss excluding depreciation charges is 3 cents per bag.

WHEAT.

86. The development of the wheat industry of the Colony is of comparatively recent date. In 1920 there was no export of flour and the export of wheat was under £1,000 per annum in value. The introduction of improved types of wheat giving heavier yields and being of a more rust-resistant character combined with favourable world prices encouraged the extension of the area under this crop, resulting in an export in 1930 of wheat products to the value of £124,597. The following table shows the growth of the industry under favourable conditions, and had the world fall in prices not intervened it is difficult to estimate the extent to which the industry would have developed.

Year	Acres	Crop	Average	Payment to Growers
1933-4..	35,001	145,581	—	—
1932-3..	30,114	63,498	2.11	15.77
1931-2..	43,168	86,862	2.01	13.73
1930-1..	68,815	194,337	2.82	9.27
1929-30	63,217	293,468	4.64	13.19
1928-9..	82,951	228,141	2.75	15.40
1927-8..	75,102	173,958	2.32	18.54

87. The c.i.f. prices obtained on the London market up to 1929 showed a material profit to the producer.

Average London values per quarter have been :—

1933	...	...	...	...	...	22/4
1932	...	...	...	...	...	26/-
1931	...	...	...	...	...	24/2
1930	...	...	...	...	...	24/7
1929	...	...	...	...	...	42/-
1928	...	...	...	...	...	44/-

88. The fall in prices from Sh. 42 to Sh. 24/7 per quarter in view of the marketing costs remaining stable resulted in production costs being higher than the price received on the export market. This is the real fact which brought about the reduction of acreage under this crop from 82,951 acres in 1928-29 to 30,114 in 1932-33. Even with a small export surplus the internal price was likely to fall to the export parity and had this occurred in recent years the wheat grower would have received about Sh. 4 per bag for his wheat.

89. The Government in 1930 realized the position and under pressure from the wheat growers introduced "The Sale of Wheat Ordinance" compelling the sale of all wheat to be made through one pool, all millers paying the same price for their wheat, growers sharing pro rata and receiving the same price for wheat of the same grade. Owing to the low price of wheat on the export market growers have reduced their area under cultivation so as to make production nearly correspond with internal consumption. The danger of this policy is amply illustrated by the fact that locust and drought reduced the crop available to below the Colony's requirements and wheat amounting to 80,000 bags had to be imported imposing a further charge on the exports required to meet overseas payments.

90. The value of wheat and flour exported is as follows :—

Year	Exports of Wheat and Flour Bags of 200 lb.	Value	
			£
1933	22,727	25,208	
1932	17,626	19,302	
1931	50,607	35,778	
1930	139,621	124,597	
1929	56,064	70,277	
1928	85,162	92,744	
1920	501	87	

The exports of 1932 and 1933 are almost entirely for flour to Tanganyika Territory.

91. The marketing costs of wheat are approximately the same as those for maize, i.e., Sh. 58/55 per ton. The average London value during 1933 was Sh. 22/4 per quarter, or Sh. 104/21 per ton leaving a balance available for distribution to the grower of Sh. 45/66 per ton, or Sh. 4/15 per bag.

92. The costs of production f.o.r. have been given to us as Sh. 37/50 per acre. The yield in 1933 was, for Kenya conditions, the exceptionally high one of 4.17 bags per acre giving a cost of production per bag of approximately Sh. 9.

93. Faced with such a heavy loss upon export the only object of the producer was to grow just sufficient wheat to supply the locally protected market. The acreage of wheat fell rapidly from 82,951 in 1928 to 35,001 in 1933, and the grower under the protection of the Sale of Wheat Ordinance is able to find a profitable market for a limited amount of his produce.

94. The Colony's wheat industry is capable of enormous and rapid expansion. There are large belts of potential wheat lands but if production were allowed to extend until there was an exportable surplus of any magnitude then the price would fall to one which would not cover the costs of production.

95. The fall in the value of wheat on the London market between the year 1928 to 1933 is shown in the following comparison.

Year.	Average London price				Index.
	per quarter.				
1928	44/-	...	100
1933	22/4	...	51

Or a fall in price of approximately 49 per cent.

96. A disturbing feature of the present condition of the industry is the serious fall that has taken place in local consumption during recent months which will eventually result in a further contraction of the area under this crop.

BUTTER.

97. To prevent wasteful competition against each other and to develop an export trade upon organized lines for the dairy industry of Kenya, the principal co-operative creameries which had previously functioned as independent entities were amalgamated. To-day, the greater number of the dairy farmers of the Colony are

members of or associated with the Kenya Co-operative Creamery, Ltd., whose membership is 383 suppliers. There are a few proprietary dairies manufacturing butter and cheese on co-operative principles, and also a number of individual dairymen. It may be said, however, that the export of butter is exclusively confined to the Kenya Co-operative Creamery, Ltd.

98. A protective duty has been imposed against the importation of butter from overseas, and this has assisted in preserving the price of butter in the local market where prices have not been influenced materially by the world price. With the development of a surplus of butter beyond local needs, it has been necessary to enter overseas markets. The heavy fall in price that has been experienced in this market tended to affect the local price by a reluctance to export. The surplus production, however, was too great for local needs and an attempt has been made to offset the loss on export by a levy of 25 cents per pound on butter sold locally.

99. For the past few years there has been a rapid expansion in dairying and it is reasonable to assume that given favourable conditions the industry could develop into one of the most important in the Colony. Not only are there a large number of European farmers engaged in dairying in the Colony, but there is an increasing tendency for one-crop farmers to turn to mixed farming. In addition there are large numbers of cattle in some of the native reserves where, given organization, the conditions are suitable for the development of dairying on an extensive scale. The cattle population of the Colony must not be taken, however, as an index of its potential dairying capacity. Steps have already been taken to encourage native suppliers of cream to the existing creameries and progress is being made in manufacturing ghee in the reserves.

100. The domestic exports of fresh butter as given in the Customs Report for the past few years are :—

	<i>Cwt.</i>		<i>£</i>
1927	..	507	valued at 4,938
1928	..	513	„ 4,917
1929	..	1,830	„ 15,126
1930	..	7,800	„ 53,016
1931	..	6,326	„ 35,618
1932	..	9,182	„ 40,301
1933	..	7,261	„ 25,773

101. During recent years the dairy farmers have been exceptionally handicapped in that climatic conditions have not been favourable, whilst the locust infestation has been particularly

damaging to most of the grazing areas which, being situated in the drier parts of the country, are more congenial to the locusts. Furthermore, the financial arrangements that were found necessary to get agreement between the various companies which joined in the amalgamation have largely restricted the financial freedom of the present company at a difficult period.

102. Kenya butter has been satisfactorily established on the London market and is reported on and graded in accordance with the New Zealand scale of points, and has on several occasions made prices equivalent to finest New Zealand on the day.

103. The price movements of butter on the London market have been :—

Year	Price per Cwt.				
	<i>Sh.</i>		<i>Sh.</i>		
1929	130 to 170
1930	85 „ 130
1931	75 „ 100
1932	82
1933	66
1934	66 „ 68

104. The average cost of manufacture by the company during their last financial year, inclusive of all overheads, interest charges, insurances, depreciations, repairs and packing charges was 22.5 cents per pound of butter fat, as compared with 28.02 cents per pound for the previous year. This reduction in working costs has been in spite of the fact that during several months of the year, owing to severe drought conditions, the factories were working on a low output and the addition of a new factory at Thomson's Falls which, for the same reasons, only received small supplies to the end of June.

105. The Kenya Co-operative Creamery, Ltd., manufactured 1,264,352 pounds of butter during the year ending 30th June, 1934. The overrun being 187,649 pounds of butter or 17.4 per cent on butterfat. Messrs. Shaw Brothers and Mathias, with whom the company have a pooling arrangement, manufactured 103,393 pounds, making a total of 1,367,745 pounds of butter.

106. The average net prices calculated at the station nearest the factory (after deducting all commissions, railage, etc.) for sales of butter were :—

	Average Price per lb.	Cents
Local Sales .. 536,867 lb. at Sh. 615,310/25	114·6	
Export Sales .. 732,593 ,,, 350,446/54	47·8	
<hr/>		
1,269,460 ,,, 965,756·79	76·1	
<hr/>		
68,000 lb. of ghee were disposed of at an average of 50·1 cents per lb. as compared with butter. The equivalent price was	41·4	
<hr/>		
Making a total average of	74·4	
<hr/>		
Which upon conversion to butterfat gives an average of .. The proceeds of the Butter Levy paid to the Creamery amounted to Sh. 82,486/04. Upon the basis of the whole of the butterfat supplied plus milk on a butterfat basis gives an addition	87·3	
<hr/>		
Making a gross receipt per lb. butterfat of The cost of manufacture, per lb. butterfat, is given as 22·5 cents Railage paid to suppliers, per lb. butterfat, is .. 3·0 ,,,	6·75	
<hr/>		
Leaving a net realization available for payment to the producer per lb. butterfat supplied of cents	94·05	
<hr/>		
	25·50	
<hr/>		
	68·55	
<hr/>		

107. The actual supplies of butter fat to the Kenya Co-operative Creamery, Ltd., for the year ending June 30th, 1934, were :—

1st Grade	967,647 lb.
2nd Grade	139,086 ,,,
3rd Grade	34,942 ,,,
Total	1,141,675 ,,,

as compared with 945,627 lb. for the previous year.

108. On these supplies the actual payout was :—

1st Grade Butterfat ..	66·5 cents per lb.
2nd ,,, ,,,	61·3 ,,, ,,,
3rd ,,, ,,,	35·3 ,,, ,,,
Average all Grades ..	64·9 ,,, ,,,

compared with the previous year's average of cents 72·2 per lb.

109. The difference in the figure of actual pay out and the net realization is accounted for partly to equalize the loss upon the manufacture and sale of cheese which, nevertheless, is to the

advantage of the supplier as the price is more favourable than the realization would be on the export of the surplus as butter, and partly because produce stocks on hand at the end of the year were valued at a considerably lower figure than at the commencement.

110. It is difficult to arrive at a figure of costs of production of one pound of butterfat which would be generally acceptable in the industry because of the many different factors influencing costs in different districts and even within the same district upon neighbouring farms.

111. In a memorandum prepared by one of the members of the Animal Husbandry Standing Committee of the Board of Agriculture the figure of costs of 1 lb. of butter was given at 65 cents and this figure is more generally accepted, and we believe represents very nearly the costs of production on established estates, at the present time.

112. The pay out by the creamery for July and August has been 55 cents per lb. for No. 1 grade butterfat supplied. There are of course seasonal variations in the pay out price but if good rains fall leading to increased supplies the pay out is likely to fall owing to the resulting increase in export. The probability of this increase is a very real one. There are numbers of farmers who have realized the necessity of departing from single crop growing and have extended their activities to more diversified farming in which dairying will play an increasingly important part. There are more creameries in contemplation particularly in the native reserves where Africans are being encouraged to find an economic outlet for their surplus milk supplies and consequently to appreciate more fully the necessity of improving their herds and of adopting better animal husbandry practice.

113. Any substantial increase in the export of butter under present conditions will have very serious consequences to the dairy-ing industry.

114. To assess the fall in the value of butter on the London market, we give below the percentage of the present prices as compared with the prices ruling in 1928 as a base. As there was a difference of Sh. 40 in the prices in 1928 the comparison is made of the low and high figures quoted.

Year	Low Price Per Cwt.	Index	High Price Per Cwt.	Index
1928 ..	Sh. 130	100	Sh. 170	100
1934 ..	66	51	68	40

Or a fall in the lower price of 49 per cent, and in the top price of 60 per cent.

115. As the net realizations of export sales at nearest station to factory amounted to 47.8 cents per lb. of butter with a production cost of 65 cents per lb. on an established dairy it is quite clear that the export market represents a loss to the Colony on every pound of butter exported overseas. A loss which is being paid in part by the local consumer and in part by those dairy farmers who are unable to cover their costs on the present pay out.

116. The effects of the drought conditions and of the locusts on grazing have been to reduce the supplies of cream which in consequence has materially increased production costs per pound of butterfat available for despatch to the creamery.

SUGAR.

117. As we believe that at the present time negotiations are proceeding between Government and representatives of the sugar industry, and as no representations have been made to us, we are reluctant to enter into an examination of this industry and put forward any recommendations.

118. It is impossible for sugar to be produced in Kenya at the present value of export to the United Kingdom of £7 per ton. We have, however, been struck by the disparity between this price and the present wholesale price of No. 1 sugar in Nairobi of £24 per ton. Under the present conditions, it is clear that with the contraction of the purchasing capacity of the Colony the local consumption must seriously decline. World prices of sugar are definitely artificial and it would appear that the only hopeful prospect is to revert to a price more in keeping with the present buying capacity of the Colony or so to restore their capacity to buy as will enable the sugar industry to lower their prices by an increased volume of local sales. The restoration of buying capacity particularly among the native inhabitants appears the more natural way of bringing about the volume which will enable lower prices to be charged.

OTHER INDUSTRIES.

119. The same downward trend in price can be traced in other agricultural commodities exported by the country. Although we have given special and more detailed consideration to certain commodities, both in our Report and in the main Report, because of their present importance, there are a number of other crops of value to the country which affect in particular the native grower. It is not possible in the case of such crops to make a comparison between costs of production and the price returned to the grower, because no attempt has yet been made to assess the natives' cost.

120. The effect of the fall in price has been to lower the purchasing capacity of the native and his ability to pay his taxes. Where the price has fallen too low he has either ceased producing the crop or when possible stores it for his own subsequent consumption.

121. The price movements of some of the commodities of importance to the native are given below, together with a table showing the percentage fall from the base year of 1928 :—

COTTON

Year	American Middling (Spot) Liverpool	
	Low	High
		Pence per lb.
1928	10.81	11.97
1929	9.39	10.65
1930	5.63	8.14
1931	4.77	5.84
1932	4.68	5.86
1933	4.94	6.24
1934	5.75	7.08

Year	Low	Index	High	Index
	Pence per lb.		Pence per lb.	
1928	10.81	100	11.97	100
1934	5.75	53	7.08	59

Or a fall in the low price of 47 per cent, and in the high price of 41 per cent.

COTTON SEED

Year	Ex Ship Liverpool Average Per Ton	
	£ s. d.	
1928	8 17 6	
1929	8 0 0	
1930	5 0 0	
1931	4 2 6	
1932	4 18 0	
1933	4 18 9	

Year	Liverpool Average Per Ton	Index
1928 ..	8 17 6	100
1933 ..	4 18 9	56

Or a fall of approximately 44 per cent.

GROUNDNUTS

Year	East African Afloat—Per Ton						
	£	s.	d.	£	s.	d.	
1928 .. .	21	0	0				
1929 .. .	19	0	0	falling to	12	5	0
1930 .. .	15	10	0	"	12	5	0
1931 .. .	12	0	0	"	11	5	0
1932 .. .	13	0	0	rising to	15	0	0
1933 .. .	13	0	0	falling to	9	2	6
1934 .. .	8	10	0	rising to	10	7	6

Year	Afloat Per Ton	Index		
	£	s.	d.	
1928 .. .	21	0	0	100
1934 .. .	10	7	6	49

Or a fall of approximately 51 per cent.

WATTLE BARK

Year	East African Chopped Per Ton c.i.f.						
	£	s.	d.	£	s.	d.	
1928 .. .	16	5	0	falling to	9	10	0
1929 .. .	9	10	0	"	9	5	6
1930 .. .	9	5	0	"	8	10	0
1931 .. .	8	7	6	"	7	2	6
1932 .. .	8	7	6	"	6	15	0
1933 .. .	6	12	0	"	5	12	6
1934 .. .	5	15	0	"	5	5	0

Year	Chopped Per Ton c.i.f.	Index		
	£	s.	d.	
1928 .. .	16	5	0	100
1934 .. .	5	5	0	32

Or a fall of approximately 68 per cent.

COPRA

Year	Sun-dried, Per Ton c.i.f.						
	£	s.	d.	£	s.	d.	
1928	29	0	0	falling to	25	0	0
1929	24	10	0	"	22	0	0
1930	21	15	0	"	16	5	0
1931	14	12	6	"	11	5	0
1932	14	0	0	rising to	15	12	0
1933	14	10	0	falling to	9	10	0
1934	9	10	0	"	9	2	6

Year	Sun-dried Per Ton c.i.f.			
	£	s.	d.	
1928	29	0	0	100
1934	9	2	6	31

Or a fall of approximately 69 per cent.

PERCENTAGE FALLS IN COMMODITY PRICES.

122. So that a clear picture may be obtained of the fall in price that has taken place in each of the industries referred to by us, we give below in statistical form the percentage fall that present prices have made from the base year of 1928 :—

1928—100				
		Percentage		
		Fall		
Coffee .. .. .. ..	..	57 per cent		
Sisal .. .. .. ..	..	65 "		
Maize .. .. .. ..	..	40 "		
Wheat .. .. .. ..	..	49 "		
Butter, Low .. .. .. ..	..	49 "		
,, High .. .. .. ..	..	60 "		
Cotton, Low .. .. .. ..	..	47 "		
,, High .. .. .. ..	..	41 "		
Cotton Seed .. .. .. ..	..	44 "		
Groundnuts .. .. .. ..	..	51 "		
Wattle Bark .. .. .. ..	..	68 "		
Copra .. .. .. ..	..	69 "		

CHAPTER III

A.—THE COLONY'S BUDGET POSITION.

123. The actual revenue and expenditure from 1923 onwards and the surplus balances of the Colony at the end of each year are shown in the following table :—

Year	Revenue	Expenditure	Revenue in excess of Expenditure	Expenditure in excess of Revenue	Surplus Balances at end of year
1922 ..	£ —	£ —	£ —	£ —	£ 107,342
1923 ..	1,839,447	2,137,633	—	298,186	190,844
1924 ..	2,111,565	1,861,511	250,054	—	59,210
1925 ..	2,430,509	2,339,996	90,513	—	149,723
1926 ..	2,627,223	2,414,681	212,542	—	362,265
1927 ..	2,846,110	2,515,115	330,995	—	693,260
1928 ..	3,020,694	2,834,647	186,047	—	879,307
1929 ..	3,333,742	3,505,073	—	171,331	707,976
1930 ..	3,241,600	3,438,874	—	197,274	510,702
1931 ..	3,066,930	3,216,089	—	149,159	361,543
1932 ..	3,010,214	3,119,723	—	109,509	252,034
1933 ..	3,121,496	3,168,035	—	46,539	205,495

124. A further analysis of the position is given in the main Report in dealing with the Colony's financial position whilst in Appendix II to the Report appears a note on the financial working of the Colony during the past six years. This note indicates in detail the disturbing effect on the Colony's finances from 1929 onwards of the economic depression and the incidence of drought and locusts.

B.—THE LOAN POSITION.

125. The total public debt of the Colony is at present £17,205,600, allocated as follows :—

Colony	...	...	...	...	£3,953,792
Railways and Harbours	...	...	...	...	£13,251,808
Total	..				£17,205,600

126. The amount, date of repayment, rate of interest, and allocation between the Colony and the Transport Administration of each loan, is shown in the following statement :—

Loan	Amount	Repayable	Interest	Floated at	Colony	Transport
	£		Per cent	£ s.	£	£
1921..	5,000,000	1946-56	6	95 0	754,614	4,245,386
1927..	5,000,000	1948-58	5	99 10	—	5,000,000
1928..	3,500,000	1950	4½	95 0	659,669	2,840,331
1930..	3,400,000	1961-71	4½	98 10	2,233,909	1,166,091
1933..	305,600	1957-67	3½	98 10	305,600	—
	£ 17,205,600	—	—	—	3,953,792	13,251,808

127. The annual interest and sinking fund charges are as follows :—

	Interest	Sinking Fund	Total
			£
Colony	186,184	39,537	225,721
Railways and Harbour ..	685,012	132,519	817,531
	£ 871,196	172,056	1,043,252

128. The Colony, therefore, has borrowed £13,251,808 for railways and harbours development and the Railways and Harbours Administration is under an obligation, imposed by Order in Council, to pay to the Colony the interest and sinking fund charges involved. This however, does not show the complete picture. The Kenya and Uganda Railways and Harbours Administration is an inter-territorial Administration operating in both Kenya and Uganda, and money for railway development has also been borrowed by the Government of Uganda. This of itself does not affect the Kenya loan position, but in association with other factors of importance it does affect the Railways and Harbours capital account.

129. In his report for the year 1933, the General Manager states that the expenditure on capital account to the end of 1933 amounted to £22,418,140 provided as follows:—

	£
INTEREST-BEARING CAPITAL—	
Borrowed by the Kenya Government	13,012,956*
Borrowed by the Uganda Government	956,024
Total Interest-bearing Capital	13,968,980
OTHER CAPITAL—	
Parliamentary Grants, 1896 and 1902	5,686,437
Accrued Interest on 1924 Loan	421,662
Total Other Capital	6,108,099
CONTRIBUTIONS FROM REVENUE—	
Direct (formerly called Expenditure Extraordinary)	649,803
Through Betterment Funds (capitalized)	1,593,754
Through Marine Insurance Fund (capitalized)	97,504
Total Contributions from Revenue.. ..	2,341,061
TOTAL EXPENDITURE ON CAPITAL ACCOUNT ..	£22,418,140

*Of this total the Uganda Government has accepted responsibility for approximately £2,000,000 representing assets constructed in Uganda, and a share of rolling stock expenditure.

130. The expenditure of such large sums of money upon the Railway and Harbours Services of the territories of Kenya and Uganda was undertaken at a time when the main conception of the foundation of the future prosperity of these two territories lay in the development of their agricultural resources.

131. The development of modern port facilities designed to handle bulk traffic; the extension into Uganda; and the projection of branch lines were all part of a comprehensive programme to stimulate the production and facilitate the export of the only known natural resources of the territories—the products of the soil.

132. In many other directions the Government of the Colony were faced with the necessity of providing services and amenities which increased population and growing demands made imperative. The lag of the war years and of the years of reconstruction that followed called for improvements that could only be met by embarking upon a bold programme of expenditure far beyond the resources of the annual revenue to provide.

133. The purposes for which the Colony has borrowed merely on its own account may be summarized as follows :—

	£
1. Repayment of loan moneys received from H.M. Treasury before 1921 (Mombasa Water Supply) ..	84,469
2. Repayment to Revenue of Advances made from Revenue for Military Expenditure in connexion with the War and purchase of reserve stores for Railway and Steamer Services	600,000
3. Public Buildings	1,496,516
4. Water Supplies	225,800
5. Communications	333,678
6. Loans to Local Authorities	506,581
7. Land and Agricultural Bank	500,000
8. Unallocated	24,266
9. Interest out of Capital	819
10. Expenses of Issue and Deduction for Discount	181,663
Total	£3,953,792

134. Actual expenditure on public buildings incurred up to the end of 1933 including expenditure on :—

	£
1. Housing for Government Servants	591,655
2. Medical Buildings, including the Medical Research Laboratory, Nairobi; extensions to the Mathari Mental Hospital and hospitals at seventeen centres throughout the country	124,968
3. Education Buildings—Eight Schools	313,254
4. Other Buildings	102,615
5. Establishment Charges not yet Allocated to Works	63,704
6. Maize Drying Installation, Kilindini	10,744
7. Cold Storage Installation, Kilindini	11,293
Total Expenditure to end of 1933	£1,218,233

135. Expenditure on communications under the 1928 and 1930 loans to the end of 1933 included :—

	£
1. Road Survey of the Colony	33,731
2. Main Roads and Bridges	49,155
3. Feeder Roads	89,877
4. Makupa Causeway	45,120
5. Road Plant	49,939
Total Roads and Bridges	267,822
6. Trunk Telephone, Nairobi-Nakuru	9,047
7. Trunk Telephone, Nairobi-Mombasa	33,138
8. Telegraph, Lugari-Bugoma	1,081
9. Telegraph, Nakuru-Eldoret	3,063
Total Telephones and Telegraphs	46,329
TOTAL COMMUNICATIONS	£314,151

136. Loans to local authorities are expected to have been made to the full extent of the provision by the end of 1934. These loans include :—

	£
Mombasa Municipality, mainly for Town Planning purposes	191,726
Nairobi Corporation for various purposes	282,847
Nakuru Municipality for purchase of Water Supply	21,000
Eldoret Municipality for various purposes	11,008
TOTAL	£506,581

137. An examination of the main allocations of the Colony's expenditure discloses the comprehensive nature of the anticipated needs of the Colony in the post war years. It further emphasises that hereto the motif of expenditure was directed to production. Thus £333,678 was allocated to improved communications; £500,000 for a Land and Agricultural Bank of which £260,000 was provided in 1933; £10,744 for a maize drying installation and £11,293 for cold storage at Kilindini. The other items of expenditure were related to the growing need for the improvement of conditions in the Colony and are either directly attributable to or consequent upon a forward programme of development.

138. It is in our view important here to reiterate that the justification for the whole loan expenditure was based upon the development of the then only known resources of the Colony—its agricultural potentialities. That other industries such as gold mining have since been started are happy omens for the future; but this should in no way detract from the pursuance of a determination to justify the direct purposes of the loan expenditure by ensuring that the production is forthcoming from the areas opened up.

139. It is idle to be wise after the event and we do not feel ourselves called upon to decide whether the programme was too ambitious for the needs of the Colony, and whether it was carried out with due regard to economy. The expenditure has been made. The amenities are there for our use and we are concerned primarily with lightening the burden of meeting the consequent charges.

140. It would, however, be a grave reflection upon the Colony if we are to emerge from adversity without having profited by the lessons that are to be learnt. It is difficult to escape the belief that having formulated and approved the proposals for a vast expansion of the transport services of the Colony the Government and all sections of the community failed to provide for the necessary production to support so extensive an organization. The development of the Colony has seriously lagged behind the provision of its transport equipment. The fault would appear to lie in part to a conception of the policy of the Railway Administration as complementary to but not a part of the functions of Government.

141. Added reasons to support this view arise when too great an emphasis is placed upon the inter-territorial character of the Railway services and the cumbersome processes that must be set in train when either of the Colonial Governments desire to influence Railway policy, more directly to its own economic advantage.

142. The weakness of divided control brought into being a third government more powerful in its own sphere than either of the other two and more independent of the interests it seeks to serve. No solution lies in the direction of subordinating Railway policy to the political influences of either Government, but rather in re-establishing their direct responsibilities for instituting and carrying into effect a development policy which would result in a traffic approximating to the carrying capacity of the vast organization they have brought into being.

143. The whole of the loan programme was founded upon anticipations of increased production for export with its consequential increase of imports. The magnitude of the recurrent charges which were soon to fall upon the Colony and which were readily calculable should have warned Government of the urgency and the importance of directing their whole energies upon stimulating the progressive increases of production upon which the success of this programme depended.

144. From want of the acceptance of this view as Governments' cardinal policy, we are of opinion that had no slump intervened the rate of development that was being made would still not have sufficed to enable the Colony to carry with ease the burden of annual interest and sinking fund charges superimposed upon the standard of Government expenditure.

145. It is not within our province to discuss how far the energies of Government have been directed in the past to the consideration of administrative, legislative, social and political questions to the subordination of economic matters, but it is perfectly clear to us that unless the whole pre-occupation of the Government and the peoples of this country is concentrated upon the improvement of production and trade not only will our emergence from present difficulties be painful and slow, but the resulting set-back to progress will be incalculable.

146. We desire to emphasize here that the responsibilities of Government do not cease by the provision of facilities to assist production and trade. They are equal partners in enterprise. Had this conception of Government's obligations been more completely accepted in the past greater efforts would have been made to ensure the success underlying the policy of loan expenditure.

147. Government is intimately, directly and vitally concerned with the economic welfare of the Colony. Not because a condition of prosperity facilitates the collection of revenue, but because the essence of good government is measured by the material welfare of its people who are then better able to provide—and more likely to appreciate—for themselves the amenities of life.

C.—BALANCE OF TRADE.

148. No complete picture of the economic condition of a country can be drawn unless it is possible to arrive at an adequately accurate statement of the balance of its trade. If Kenya has been buying more than she is selling the balance due from her has to be made good by transfers of money. With a free moving exchange any continued movement in either direction is corrected by an adjustment in the buying or selling rate of bills of exchange. The movement of specie takes place in such countries as are on a metallic standard when the buying or selling rate is above the costs of shipping specie. With the movement outwards of specie the currency in circulation contracts lessening the purchasing power of the community and prices fall.

149. The control of the East African currency system has been vested in the East African Currency Board which was constituted in December, 1919.

150. With an adverse balance of trade under the East African Currency Board the deficiency is made good by a contraction of the currency in circulation since more notes and coins must be tendered for transfer to London than has been received for goods sent and services rendered outside the Colony.

151. The amounts of these payments are disclosed by arriving at the Colony's balance of trade and the results will be discussed in a later section.

152. In Kenya our national balance sheet of items due to and by the country should be placed upon a more exact basis and whilst complaint upon this score may be made with some justification, nevertheless we believe that the circumstances of the Colony are not so complicated that it is not possible to arrive at a reasonably accurate statement of the position.

153. In the first place we restate the chief characteristics of our economy. We are essentially a primary producing country. The agricultural development of which is carried out in part by some 2,102 European farmers, 55 Indian farmers, and 3,000,000 native inhabitants who are dependent for their sustenance on production on their own behalf and as the labour force for non-native

production and industry. The commerce of the country is largely in the hands of European and Indian merchants, although it is of interest to note that an increasing number of Africans are entering into business on their own behalf.

154. A number of the non-native residents have been drawn from well-to-do families and the incomes that they draw from sources outside the Colony have undoubtedly played an important part in the development of their undertakings.

155. In addition to these elements of the population the Government of the Colony has been conducted by a Civil Service both European and Asiatic, largely recruited from overseas and, in the main, domiciled either in Britain or India, whose terms of service provide for periods of long leave outside the Colony and pensions on retirement in the country of their domicile.

156. It is axiomatic in economics that a country's exports pay for its imports. In the wide sense in which these terms are used the recorded imports and exports of a country represent only a part of the transactions that give it a claim on other countries and of the transactions that give other countries a claim on it. In addition to those recorded certain "invisible" imports and exports—claims to interest, tourist traffic, foreign investments, entrepot services, etc.—must be taken into account. So far as these two sets of claims balance they will cancel out, so far as they do not the balance will be settled by the transfer of specie or its equivalent.

157. It is in the periodic assessment of the various factors that constitute the Colony's balance of trade that a true picture is obtained of the progress or otherwise that is being made. The information thus acquired constitutes the only scientific diagnosis of a country's economic ills, and with the knowledge thus gained remedial adjustments can be more easily applied.

158. Kenya and Uganda being one administrative unit for Customs purposes, the Annual Trade Reports relate to Kenya and Uganda as a whole, and although of recent years some indication has been given of the balance of visible trade of Kenya and Uganda individually, the Commissioner of Customs makes it clear in his reports that an accurate estimate on this basis is impracticable as, on the one hand Kenya is largely a distributing centre, and on the other, the overseas trade of Uganda passes in the main through Kenya. Although the qualification given by the Commissioner of Customs must be borne in mind, we are satisfied that the general movements over a period of years constitute a safeguard from

serious error, and that when all the factors have been allowed for the balance outstanding cannot affect the issue to any material extent.

159. The figures given for Kenya and Uganda are compiled on what is, as near as possible, a strictly comparative basis, that is to say, the values are taken of goods in the ship's slings. Thus in the case of imports, goods are valued as they lie at the port of entry, plus landing (but not wharfage) charges. Such values exclude trade and cash discounts but include freight, insurance and the value of the packages containing such goods, together with any commision paid. Exports are valued at the f.o.b. value at the port of shipment, and re-exports at the landed value as disclosed on original import entry.

160. For the purposes of this report balance of trade and balance of payments are taken to be synonymous terms.

161. The following are the figures for the visible balance of trade of Kenya Colony and Protectorate and Uganda individually over the past six years.

KENYA			Trade Imports	Exports and Re-exports	Balance
			£	£	£
1928	..	..	6,759,673	5,075,699	-1,683,974
1929	..	..	6,602,402	4,605,448	-1,996,954
1930	..	..	5,309,501	4,760,056	-549,445
1931	..	..	3,783,300	3,449,424	-333,876
1932	..	..	3,392,642	3,483,072	+90,430
1933	..	..	3,382,808	3,691,640	+308,832
UGANDA					
1928	..	..	1,988,104	3,688,972	+1,700,868
1929	..	..	2,318,177	4,536,163	+2,217,986
1930	..	..	1,614,164	2,188,162	+573,998
1931	..	..	1,308,726	2,056,519	+747,793
1932	..	..	1,270,217	2,387,636	+1,117,419
1933	..	..	1,303,214	3,615,656	+2,312,442

162. The figures given above exclude imports on Government account. In the following tables these figures are classified into Kenya Government stores, and stores and materials for the maintenance and extension of the Kenya and Uganda Railways and Harbours.

	Imports on Account Kenya Government	K.U.R. & H.	Total
		£	£
1928	234,180	1,290,669	1,524,849
1929	304,076	904,119	1,208,195
1930	229,660	772,944	1,002,604
1931	124,077	440,838	564,915
1932	112,586	43,124	155,710
1933	88,447	60,410	148,857

163. All importations of metallic currency or specie on Government account are shown as importations by the Kenya Government. As these importations are the property of the East African Currency Board and are in no sense importations for the Kenya Government the amounts represented will be deducted as they do not influence the position.

164. The details of such importations are as follows :—

KENYA GOVERNMENT IMPORTS

	Specie	Other Imports	Total
		£	£
1928	12,047	222,133	234,180
1929	14,959	289,117	304,076
1930	—	229,660	229,660
1931	750	123,327	124,077
1932	3,400	109,186	112,586
1933	3,794	84,653	88,447

165. It is unfortunate that no details are available for the years 1928 to 1932 of the quantities and values of Uganda produce consumed in Kenya, more particularly as it is known that considerable quantities of Uganda sugar and tobacco have been consumed in Kenya in recent years. The effect of this trade on local produce as between Kenya and Uganda may, perhaps, be taken as affecting Kenya's trade balance by something in the neighbourhood of £50,000 per annum for 1931 and 1932, and by something of the order of £100,000 per annum from 1928 to 1930.

166. The values given for Kenya produce exported to Uganda and the estimated values arrived at as above for Uganda produce exported to Kenya are as follows :—

			Kenya to Uganda	Uganda to Kenya
			£	£
1928	..	..	236,255	136,000
1929	..	..	189,938	90,000
1930	..	..	182,026	82,000
1931	..	..	146,166	96,000
1932	..	..	140,160	90,000
1933	..	..	117,303	74,672

167. The figures of the visible balance of trade of Kenya on the basis outlined in the foregoing paragraphs are as follows :—

	1928	1929	1930	1931	1932	1933
Kenya Trade Imports..	£'000 6,760	£'000 6,602	£'000 5,310	£'000 3,783	£'000 3,393	£'000 3,383
Kenya Govt. Imports, excluding Specie ..	222	289	230	123	109	85
K.U.R. & H. Imports ..	1,291	904	773	441	43	60
Imports of Uganda Pro- duce	136	90	82	96	90	75
Total Imports, £'000..	8,409	7,885	6,395	4,443	3,635	3,605
Kenya Exports and Re- exports	5,076	4,605	4,760	3,449	3,483	3,692
Kenya Exports to Uganda	236	190	182	146	140	117
Total Exports, £'000..	5,312	4,795	4,942	3,595	3,623	3,809
Balance of Visible Trade	—3,097	—3,090	—1,453	—848	—12	+206

168. In the figures for Kenya's visible balance of trade the whole of the importations on account of the Kenya and Uganda Railways and Harbours have been included. We were advised that of this total of stores and materials an average of approximately one-quarter of the total over the past six years has been used or consumed in the Uganda section of the Railway services. For accountancy purposes, however, all financial transactions are arranged for at the headquarters offices in Nairobi, and payment for stores and materials imported for the system are made either by remittances through the Kenya banks or by payment from loan funds in London. Credit for the Railway transactions in Uganda will, therefore, be reflected when the remittances inwards and outwards between Kenya and Uganda are taken into account.

169. Whilst it is true to say that when considering the Colony's balance of transactions which do not appear in the trade returns certain difficulties immediately arise in endeavouring to ascertain the value to Kenya of certain items such as her entrepot services, importations of private capital, and realizations on private capital account, etc., separately, nevertheless the Colony has been fortunate in having available certain bank statistics for the years 1927 to 1932 collected by the Statistician to the Conference of the East African Governors which considered in conjunction with the visible balance of trade, the movements of loan funds, Government and Railway remittances, and certain movements of cash, provides the key to the balance in total figures of the other transactions in the Colony on private account.

170. Of the financial transactions not reflected in the bank statistics consideration must be given to the drawings against loan account in London by the Kenya Government and the Kenya and Uganda Railways and Harbours, and the movement of cash across the Kenya border.

171. We have been informed that all the inter-territorial bank movements of cash are reflected in the bank statistics. Therefore, the only considerable movements of currency notes and coin that need be taken into account have been given by the Chief Accountant of the Kenya and Uganda Railways and Harbours and are as follows :—

	Cash sent by Rail from Uganda and Tanganyika Stations and Ports to Kenya	Cash sent by Pay Train from Kenya to Uganda	Balance
	£	£	£
1928	47,914	18,025	+29,889
1929	80,230	23,544	+56,686
1930	51,535	33,349	+18,186
1931	63,588	39,956	+23,632
1932	82,704	48,426	+34,278
1933	115,576	45,042	+70,534

172. No remittances of loan moneys have been made from London to Kenya. All expenditure on loan account in Kenya has been made by the establishment of the necessary credits locally. The amounts which would otherwise have been remitted to London have been reduced correspondingly and credit taken from loan funds in London. The outward balance will be included in the figures of bank remittances outwards.

173. As the drawings against loan funds in London each year represent a part of the resources of the Colony to meet the obligations incurred, full account must be taken of such amounts. Costs of issue and discounts, since they represent no credit to the Colony, are deducted. The figures are :—

Government loan expenditure disbursed during the period 1928-33 less expenses of issue, etc.

	Total Disbursements	Cost of Issue	Balance
	£	£	£
1928	1,892,369	268,235	1,624,134
1929	1,201,236	379	1,200,857
1930	973,055	96,707	876,348
1931	659,537	—	659,537
1932	324,365	—	324,365
1933	172,456	5,595	166,861

174. Included in the balance shown above, of course, it should be noted that Government and the Kenya and Uganda Railways and Harbours pay certain fees for professional services, etc., rendered in the United Kingdom.

175. In addition to the above resources of the Colony the following credits were established in London by the Uganda Government on Railway account :—

1928 .. ..	...	...	...	...	—
1929 .. ..	...	...	...	...	£98,670
1930 .. ..	...	...	...	...	£31,550
1931 .. ..	...	...	...	...	—
1932 .. ..	...	...	...	...	—
1933 .. ..	...	...	...	...	—

176. Relating these figures to the balance of visible trade we arrive at the following :—

	Visible Balance of Trade	Cash Movements	Loan Disbursements	Uganda Credit	Balance
	£'000	£'000	£'000	£'000	£'000
1928	-3,097	+30	+1,624	—	-1,431
1929	-3,090	+57	+1,201	+99	-1,733
1930	-1,453	+18	+876	+32	-527
1931	-848	+24	+660	—	-164
1932	-12	+34	+324	—	+346
1933	+206	+71	+167	—	+444

177. The significance of the resulting balance is that for the years 1928 to 1931 inclusive, the amounts shown had to be remitted from the Colony to meet the obligations incurred. For the years 1932 and 1933 the obligations were reversed and remittances inwards exceed outward remittances.

178. To establish the correctness of the conclusions reached and because payments must ultimately balance the figures of the total value of remittances inwards to and outwards from the Colony are given below together with the balance of such remittances compiled by the Statistical Research Department in an analysis of the bank statistics for the Colony and Protectorate of Kenya.

	Remittances		Balance
	Inwards	Outwards	
	£'000	£'000	£'000
1928	9,593	11,326	-1,733
1929	9,902	10,619	-717
1930	9,479	9,683	-204
1931	7,010	6,959	+51
1932	7,570	7,431	+139

179. The balance of remittances as given above must correspond to the claims upon the Colony for goods and services rendered. The comparison is as follows :—

	Balance as given above	Balance of Remittances	Final Balance (+Over Remitted)
	£'000	£'000	£'000
1928	-1,431	-1,733	+302
1929	-1,733	-717	-1,016
1930	-527	-204	-323
1931	-164	+51	-215
1932	+346	+139	+207
1933	+444	—	—

180. The variations in the final balances except in so far as there is a departure from the normal for the year 1929, are accounted for by the lag over from one years end to another. Thus, goods entered in the import figures on long dated bills of exchange which are payable in another calendar year would explain in part the variation. But over a period of years the differences must equalize.

181. We are in difficulty in accounting for the failure to remit £1,016,000 which the Colony's obligations call for. The virtual abolition of the Statistical Department responsible for the compilation of these figures has made it impossible to secure a further examination of the position.

182. We have made various inquiries to confirm possible explanations but without obtaining sufficient proof to justify their inclusion in this Report. The inescapable fact, however, remains that the Colony's financial obligation must correspond and be cancelled out by the remittances inwards or outwards of cash or its equivalent credit.

183. If we omit, therefore, the year in dispute we arrive at a remarkably close cancellation as the following figures disclose.

	Over Remittance	Under Remittance
	£'000	£'000
1928 ..	+302	—
1930 ..	—	—323
1931 ..	—	—215
1932 ..	+207	—
	507	538

Difference £31,000 remitted short.

184. By accepting as substantially accurate the results attained in the last paragraph we believe we are justified in proceeding to a further analysis of the figures available to us. We would emphasize again that the discrepancy as disclosed for the year 1929 is an under-payment of obligations by the Colony.

185. To arrive at a closer approximation of the purchasing capacity of Kenya, deduction will be made of the value of re-exports from the figures given by the Commissioner of Customs for the visible balance of trade. Re-exports for statistical purposes are valued at the landed value as declared on original import entry and the values deducted below from the Kenya figures are as supplied from the trade returns given to the Committee.

	Kenya Trade Imports	Less	Kenya Re-exports	Equals	Retained Imports
	£		£		£
1928 ..	6,759,673	Less	1,809,296	Equals	4,950,377
1929 ..	6,602,402	..	1,859,538	..	4,742,864
1930 ..	5,309,501	..	1,337,485	..	3,972,016
1931 ..	3,783,300	..	1,105,550	..	2,677,750
1932 ..	3,392,642	..	1,183,807	..	2,208,835
1933 ..	3,382,808	..	1,444,641	..	1,938,167

186. We were informed that no remittances inwards have been made to either the credit of the Government or of the Railways and Harbours Administration. Where loan works have been undertaken locally payment for such works was made by taking credit in London and reducing the amount of outward remittances accordingly. We have given all the figures relating to Government expenditure not brought into the bank statistics. There remains the actual remittances made annually by the Colonial Government and the Railway Administration for importation of Government stores, loan interest and sinking fund charges, for pensions, for officers' leave pay, and other overseas requirements. These figures are as follows :—

187. Bank remittances outwards by the Kenya Government and Kenya and Uganda Railways and Harbours :—

	Kenya Government	K.U.R.&H.	Total
		£'000	£'000
1928	597	1,421	2,018
1929	342	930	1,272
1930	322	1,122	1,444
1931	120	438	558
1932	232	1,184	1,416
1933	484	1,369	1,853

188. Below we bring into juxtaposition the major financial transactions of importance to the economic life of the Colony.

	Retained Trade Imports	Domestic Exports	Government and K.U.R. & H. Outward Remittances	Disbursements on Loan Account including Cost of Issue
1928 ..	£ 4,950,377	£ 3,266,403	£ 2,018,000	£ 1,892,369
1929 ..	4,742,864	2,745,910	1,272,000	1,201,236
1930 ..	3,972,016	3,422,571	1,444,000	973,055
1931 ..	2,677,750	2,343,874	558,000	659,537
1932 ..	2,208,835	2,280,982	1,416,000	324,365
1933 ..	1,938,167	2,246,999	1,853,000	172,456

189. This table of figures when considered in conjunction with the balance of inward and outward remittances through the banks and the balance of trade figures, permits of certain general inferences to be drawn.

190. It is clear that despite the expenditure of certain loan monies within the Colony and of private importations of capital which were able to support the high figures of trade imports the Colony must have been drawing upon its own internal resources during the years 1928 to 1930 inclusive. With the reduced purchasing power brought about in part by the fall in the price level of commodities; by the dwindling of private importations of capital; and by the restrictions on internal borrowings, the Colony is no longer able to import even to the value of its exports.

191. A more real appreciation of the change in our financial position is gained when it is realized that our ability to purchase overseas has fallen from £4,950,377 to the low figure of £1,938,167 in 1933, a fall of 60 per cent.

192. The real difficulties are more apparent when the Government and Railway and pension commitments overseas are compared with the export position. In 1928 with an export of £3,266,403 these charges amounted to £465,000, while with the reduced export of £2,246,999 in 1933 these same charges amounted to the high figure of £1,234,252.

193. It is interesting to note that evidence was given showing that the Government and Railway remittances overseas in 1934 would amount to approximately £2,250,000, and although the exports for the year are not yet completed there is no reason to suppose that they will exceed those of 1933, i.e. £2,246,999. Practically the whole of the exports being required to meet these remittances.

194. Confirmation is given to this conclusion by reference to the various relative figures published in the bank statistics such as deposits subject to cheque, average daily debit transactions, cash in hand, bills discounted and loans and advances outstanding.

195. Unfortunately it is not possible to gauge the exact extent of the position by reference to the currency reserves or by the currency in circulation as the figures published by the East African Currency Board relate to the whole currency basin which includes Tanganyika and Uganda.

196. Nevertheless, the following figures taken from the official reports indicate that with the basin as a whole there has been a contraction in both the currency in circulation and the currency reserve.

	Coins and Notes in Circulation	Currency Reserve Fund
	£'000	£'000
31-12-1927	4,947	2,007
31-12-1928	5,298	2,295
31-12-1929	5,034	1,634
31-12-1930	4,530	1,146*
31-12-1931	3,695	507
31-12-1932	3,468	253
31-12-1933	3,827	686

*Coin in stock valued at current market value of the metal content instead of at cost from 1930 onwards.

CHAPTER IV

THE EFFECTS OF THE DEPRESSION

197. In preceding sections we have examined the position during the years 1928 to 1933 of certain industries of importance to the Colony. We have given a statistical review of the loan expenditure and of the Colony's budget, and have endeavoured, on broad lines, to indicate the balance of trade. With this information before us and drawing upon our own knowledge, we proceed to an examination of the effects of the depression upon the internal economy of the Colony, and to an appraisal of the Government's policy as it has so far been applied to meet the needs of the situation.

198. In the years prior to 1929 the economic conditions in the Colony were favourable. Not only were prices satisfactory to agricultural production upon which the basis of the country's prosperity is founded, but there was a considerable expenditure within the Colony of loan monies. The stage of semi-development was being rapidly passed; the standard of living was high, and prosperous conditions were general.

199. The first effects of the collapse in world prices was to strike at the root of the Colony's income—that of its export producers. Not one of the exports of the Colony escaped from the downward trend in prices. In the absence of any country-wide policy to meet the threat and minimize its effects, all producers took the only action open to them—an attack upon their costs of production and a curtailment of their normal spending. Retrenchment, wage cuts, increased tasks, curtailment of repairs and renewals, etc., in fact, all items within their control and which influenced costs were rigorously reduced.

200. It has been in evidence before us that, despite the most ruthless pruning, reductions in cost have still not overtaken the fall in price in most industries. In certain industries only, where prices have not fallen so low, only such farmers as are favourably situated or whose farming ability is outstanding, are still able to produce at a small margin of profit.

201. An examination of the costs of production as given to us and of the London market prices as quoted makes it abundantly clear that there are few industries to-day that can, from sales overseas, show even a return of their production and marketing costs to the grower.

202. Faced with little hope of improvement in the external market certain industries as were able sought to improve their position by adopting, with Government assistance, measures to safeguard their existence.

203. Whatever the method adopted the underlying principle is the same of safeguarding to the industry the internal market at a price which will equalize to some extent the loss on export. The practise of assisting a young industry in its early years against undue competition from more established countries is generally accepted, and has in the past been the policy of Government.

204. Difficulties, however, arise when this policy is used to meet a general fall in the price level of all exported commodities. The much needed relief that each section of the producing community seeks in lowering its costs of production is immediately retarded. Costs of living are influenced in an upward direction which reduced spending power is least able to afford.

205. Since the impact of the depression there has been introduced the butter levy, the imposition of added duties, the introduction of the Sale of Wheat Ordinance, the proposals from certain industries for compulsory co-operation of all producers in that industry.

206. In our review of the butter position we record that the butter levy has added to the payout, cents 6.75 per lb. of butterfat supplied to the Kenya Co-operative Creamery, Ltd. This is a figure which must steadily fall as the export quantity increases and as the payout price has again fallen there has been put forward a proposal to increase the levy by a further 25 cents per lb. of butter sold in the local market.

207. The conditions in the dairy industry will become desperate when the large surplus anticipated forces a greater proportion on to the export market and thus still further reduces the payout. With abundant rains after the long years of locust damage and drought the present suppliers could very materially increase their production of cream without this source being augmented from other dairymen.

208. The wheat industry which was threatened with extinction has revived under a protected market and the introduction of compulsory pooling. The internal price has been raised to a profitable level to the grower so long as no considerable surplus is exported.

209. The export price of maize offers no margin of profit to the producer, and the loss thus occasioned is offset to some extent by a more favourable internal price.

210. The sugar industry is able to maintain an internal price of approximately £24 per ton when the f.o.r. value of sugar for export to the United Kingdom is, we understand, in the region of £7 per ton.

211. These conditions are in part imposed upon the industry by the artificial conditions ruling in the world's markets and in part to assist the producers by spreading some of the loss on all sections of the community. Furthermore, it is essential to the internal economy of the Colony and of the interests of certain industries that others should be preserved.

212. The cumulative effect of the policies, however, is to add under present circumstances to consumers' costs and consequently to the costs of production generally at a time when such conditions tend to retard recovery.

213. The loss of income from low export prices when it did occur fell first on export producers and recipients of profits. It was a fundamental mistake to believe that the fall was temporary in character and that the extent of private resources was sufficient to maintain relatively intact the total of national income.

214. So closely bound up are the sources of national income with the prosperity of the primary producer that the steps he had taken to bring his costs into some relationship with the value of his products began to have an early effect upon the volume of trade. Merchants and traders throughout the land sought to meet falling turnover by resorting to similar reductions in overhead expenses. Staffs were reduced; salaries and wages cut; every item of expense came under review. Profits dwindled to losses; bankruptcies became more frequent, and unemployment resulted. In the first three years of the depression 5,000 more Indians, principally clerks and artisans, left the Colony than came into it, whilst many thousands of natives were unable to obtain the employment they sought. Among Europeans many were forced to accept assistance from Government to leave the country, whilst others readily accepted employment on terms that barely covered their board and lodging costs.

215. We have received evidence from representatives of trading interests in the Colony and Protectorate. We were advised that trading concerns in general are not on a paying basis, and that despite the heavy reductions in overhead expenses the loss in turnover has aggravated competition. Owing to relatively small volume of business for the number of traders, the desire to share in what is available has led to uneconomic prices being quoted. The actual fall in the volume of business would have been much greater but for the importation of cheaply manufactured articles from foreign sources, particularly from Japan, and that even in this regard the position tends to be illusory owing to the extended credit given.

216. Other disabilities with which the trading community have to deal are the result in part due to the heavy duties and taxes superimposed upon the intense competition. Legitimate traders complain that the right licences are not taken out, that invoices are falsified to evade customs duties, that packages which previously stated their weights no longer contain the same quantities, and that misrepresentation is made to the Railway of the contents of the goods despatched. Difficult trading conditions are the incentive to devious practices among the unscrupulous.

217. The psychological effect of a reduction in salaries has lead to a curtailment of spending much greater than the extent of the cut owing to the sense of insecurity created, whilst additional taxation has had an equally deleterious effect.

218. As regards the position of mortgages we were informed that mortgagees are most reluctant to foreclose. Money from this form of investment was placed primarily to earn interest and not to take an active partnership in production or speculation. During the past two years a number of mortgagors had not been able to pay their interest but that on the whole the difficulties of the times had been generously met by mortgagees who were averse to taking over liabilities they were ill-equipped to control.

219. Government were tardy in appreciating the extent of the loss of income brought about by the continued collapse in prices. The budget for 1931 was already framed before the full extent of the shortfall in revenue for 1930 had been realized. To meet the position Government adopted two main lines of policy. These were and still are admitted to be dictated by expediency to meet temporary conditions. They were the curtailment of expenditure, and the raising of additional revenue by taxation.

220. The first step was the drastic cutting down of all items of expenditure. Retrenchments, reductions of allowances, variations of certain conditions of service; virtual elimination of non-recurrent expenditure; levies on official salaries; compulsory retirements, etc. Then followed increases in taxation. Excise duties on sugar, tea, and tobacco; entertainment tax; increased petrol tax; increased traders and professional licences; non-native poll tax graduated to income; increased education fees, package tax, etc.

221. The Railways and Harbours followed similar lines. The tonnage moved by the Railway fell from 1,005,041 tons in 1930, to 771,714 in 1933. Railway earnings dropped from £2,825,310 in 1929, to £2,426,184 in 1933, while the interest and sinking fund charges of the Administration increased from £685,516 in 1929.

to £821,370 in 1933. Despite heavy retrenchments in personnel and reductions in other charges the Administration, to meet the position, have increased the Port charges by 5 per cent, restricted the movement of maize and cotton seed for export, induced Government to prohibit road competition, and year by year imposed higher freight charges on many of the important articles in common use, thus imposing an increasing burden on the reducing number of users of the Railway and Port Services.

222. Certain assistance was, however, given by Government to a section of the producers of the Colony.

223. Owing to the long lag between the production and the realization of products, difficulties were experienced by many farmers whose existing sources of credit had been exhausted, and special steps were taken as an emergency measure to place additional credit facilities at their disposal. Legislation was enacted in May, 1930, providing for the appointment of a Central Agricultural Advances Board. A sum of £100,000 was appropriated as a charge against surplus balances for the purpose of making advances and meeting expenses under the Ordinance. The Ordinance prescribed that interest at the rate of 8 per cent per annum should be charged on advances, the object in view being to ensure that the operations of the Board should not interfere with the normal flow of credit facilities from banks and finance corporations.

224. The scheme was intended to be temporary but the further fall in prices in later years, coupled with extensive damage by locusts in 1931 and 1932, and the drought in 1933 seriously affected recoveries of principal and interest. By the end of 1931 the amount involved in the outstanding advances made by the Board was £95,034; at the end of 1932 it was £106,377, and at the end of 1933 it was £110,244.

225. In addition certain payments were made in respect of the export of maize, wheat and barley, to an amount of £116,090, which sum is repayable from the industries on certain conditions.

226. But beyond this measure of relief to a certain section of farmers, the financial policy pursued by Government has in fact tended to retard the Colony in endeavouring to adjust itself to the conditions imposed upon its industries. The increasing burden of loan charges has undoubtedly dictated Government's policy, but no adequate consideration has been given to the causes of the collapse in world prices and their far-reaching effects upon Government's finances. Expediency and hopes of improvement provide no adequate reply to the devastating nature of the attack.

227. For some years there has been a steadily growing crisis in the external position brought about by the disappearance of currency reserves. Even during periods of heavy loan expenditure within the Colony the Currency Board reserves have shown a tendency to weaken which has become more marked with the onslaught of depression.

228. Government's remedy for the difficult external position thus indicated was to pass an Enabling Ordinance which empowered the East African Currency Board to borrow up to a further £1,500,000 to support the excess of redemption which London might have been called upon to provide. Of this amount Kenya was to guarantee £650,000. No call has yet been made to use the powers provided. The Currency Board Reserves which were intended to provide support for their issue of currency notes and token coins has fallen from £2,295,000 in December 31st, 1928, to £686,000 at the end of 1933. The currency in circulation has been contracted from £5,298,000 to £3,827,000 between the years 1928 to 1933.

229. The policy adopted of providing means of obtaining further funds which could be used to provide a continued excess of redemption in London represents no attempt at rectification except by a process of exhaustion. A glance at the change in the volume of purchasing power as disclosed by the figures of trade imports shows that the processes of exhaustion are at work. How far-reaching the continuance of this fall in purchasing power will go is difficult to conjecture, but it is clear to us that so long as it is impossible to continue exporting at a profit so long must there be deterioration in the Colony's internal economic position.

230. Revenue must recede under the accumulated loss of income, and no solution can possibly lie in forcing under these circumstances additional taxation when every evidence is available that the burden is already beyond the resources of the Colony and that, in fact, Government's actions, as exemplified by their policy, have been to hamper the prospect of recovery.

231. It is idle to say that the present burden falls lightly upon a few individuals. The only criterion of the weight of taxation is the capacity of the general tax payer to respond.

232. Government, we believe, is once again faced with the problem of relating its expenditure to reduced revenue. An obvious and definite limit has now been reached as to the further extent to which Government can at this stage set in train the same policies as were previously adopted or there will be started a movement whose momentum will have repercussions through every grade of

society bringing in its train distress, unemployment and collapse. With the present fall in overseas prices, the cut in costs required to restore the balance if this way alone were followed, would involve reductions in nominal wages of so high a percentage that the attempt to do this would threaten social and financial stability.

233. Owing to the absence of up-to-date statistics relating to the price levels of commodities of importance to an accurate estimate of the costs of living, we have been hampered in our task of arriving at an acceptable distinction of the costs of living between the years 1928 and the present time. Certain retail prices which were collected by the Statistical Department up to November, 1933, and published in the form of index numbers for 1933 are as follows :

GROUPS OF ARTICLES	Index No.
Groceries and Provisions ..	862
Clothing	775
Sundry Household Articles ..	896
Motor Transport ..	918
Medicines and Patent Foods ..	961
Milk	725
Meat and Fish	814
Local Articles only ..	791
Imported Articles only ..	891
All Articles together ..	861

234. All groups show that considerable falls have taken place in the price levels of 1928. The measure of the fall, however, which would be provided by a weighted index of the costs of living over a wide range of articles cannot be given in the absence of the necessary statistical information. That costs of living have fallen materially is generally agreed. Not only do the figures quoted above, which relate to retail prices in Nairobi, indicate the general downward tendency but important items such as rents and domestic wages have, as is well known, fallen by substantial percentages.

235. In the light of such conditions, it is natural that the demand should be made for the enforcement of Government's policy of deflation throughout its own services and that not only should all official salaries and wages be related proportionately to the level of all prices, but that the process should continue to all other charges such as land rents, interests, rates, railway and port charges, etc., that are to-day distorted in relation to commodity prices.

236. It will be immediately apparent how formidable a task is contemplated by any such action. Nevertheless, the distortion that exists as a result of the failure to take some action to reduce

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all costs of production more nearly to correspond with the fall in prices is so grave as to endanger the productive process upon which the whole structure of the Colony's economic life has been based.

237. We believe that the problem here presented is in essence the fundamental task of the Committee upon which we have been appointed to serve. Our investigations into the Colony's industries confirm us in our belief that the need of readjustment is urgent if we are to preserve intact the foundations of social order which have been so laboriously established.

CHAPTER V

RECOMMENDATIONS FOR ECONOMIC RECOVERY.

238. In the analysis we have given of the economic position of the Colony, it is clear that the basic problem we have been called upon to deal with is the gap between prices and costs in our primary industries. In a greater or less degree the same problem has faced every country in the world. The large measure of unrest that has characterized most countries is evidence of the degree of economic pressure that has existed and to meet the position far-reaching measures have perforce had to be made and are still in the process of being made to restore in part equilibrium to the changed conditions, pending the revival of confidence in international trade.

239. Three main lines of policy have appeared to characterize the methods adopted abroad to meet the lack of equilibrium in the economic structure. These may be briefly stated as :—

- (1) Reductions of wages and salaries in conformity with the fall in the costs of living.
- (2) Reductions of interest charges generally upon which public debt loan conversions have had a fundamental influence.
- (3) The management of exchange.

240. Conditions in many other parts of the world may not be analogous to our own except in so far as the basic problem is the same. We have, however, found much to guide us in the conditions facing the Dominions of Australia and New Zealand. A special committee was appointed in Australia in 1932 to make a survey of the economic problem more particularly with a view to the re-absorption of the unemployed. In outlining their problem this committee found that "men are unemployed because prices for the products of industry over a large field are less than the costs of producing them. The fall of export prices has cut down generally the incomes of producers for export, many are making losses. This falling-off in rural purchasing power has spread unemployment throughout the community."

241. "The restoration of employment, as opposed to temporary stimulants is to be found in bringing into harmony the costs and prices of export industry. This adjustment must involve, for the time, a general lowering of standards in agreement with our loss of real income."

242. "To make export industry profitable again we must either lower costs or raise prices all round. A better balance between costs and prices and export prices and other prices is the essential of recovery."

243. In 1931 Australia had already taken definite steps to restore the balance. The exchange rate was moved to 130, raising export prices. The Federal Arbitration Court adopted the principle of 10 per cent cut in real wages which was calculated to mean a 26 per cent cut in nominal wages, and the Premier's Plan included a reduction of interest to give about the same reduction in real income from that source. This reduction was computed at 22½ per cent of the existing interest rates.

244. The recommendations of the 1932 Committee included :—

- (1) That equilibrium between costs and prices be sought as a basis for the restoration of employment.
- (2) That Parliament authorize the Commonwealth Bank to manage the exchange rate to this end taking into account economic conditions.
- (3) That all wage-fixing authorities complete the reduction of real wages by 10 per cent below the level of 1928 where this had not already been done.
- (4) That the Commonwealth Parliament systematically revise the tariff with the objective of promoting the greatest employment throughout industry, and not only in the industry directly concerned in each item.

245. The measures taken in New Zealand were identical but were enforced at a much later date. In an official statement to the Committee of Supply in November, 1933, the New Zealand Minister of Finance stated : "When in due course we come to look back upon these times it will be recognized that three measures which have taken place, however contentious they may have been when initiated, stand out as landmarks along the road to recovery. These are—

- (1) the adjustment of the exchange rate;
- (2) the conversion of the whole internal debt, with related measures for stabilizing interest rate at lower levels; and
- (3) the establishment of the New Zealand Reserve Bank."

246. Speaking on the 1934 Budget before the same assembly the same Minister of Finance reported : "The benefits received from the increase in the prices of a substantial proportion of our exports, combined with the raising of the exchange rate, have substantially bridged the serious gap between costs and market-

prices for a great many of our farmers . . . In fact since the raising of the London-New Zealand exchange rate retail prices have been stabilized, not increased. This is borne out by the tables issued by the Government Statistician showing that in January and February, 1933, the New Zealand retail price index stood at 26 per cent and 27 per cent above July, 1914. Despite the imposition of the sales tax and the increased exchange rate, this increase above the July, 1914, level remained at 26 per cent and 27 per cent throughout the year 1933."

247. In a concluding passage the Minister stated : "As honourable members will have gathered from my remarks in regard to the revenue, there are now definite indications that the position is steadily improving, although economically we have still some difficult problems to solve. In these circumstances the Government feels justified in granting a 5 per cent increase in salaries and wages as from 1st April last to all public servants and others charged on the budget who suffered both the first and second cut. This will be almost equivalent to a restoration of the second cut so far as the lower paid officers are concerned . . ."

"The addition thus made to salaries, wages and pensions will undoubtedly go into immediate circulation and in conjunction with the reductions to be made in unemployment and customs taxation and the expansion of building operations should give a decided fillip to business."

248. We are fully aware of the differences that exist between our own circumstances and those of the Great Dominions of the British Empire. Although basically the problem is the same there are essential differences in degree. Not only have the Dominions developed their own secondary industries to a far greater extent, but their public servants are domiciled within their territories and thus do not present the same complexity to the problem. Nevertheless, these very differences in the case of the East African territories tend to aggravate the distortion.

249. In our examination of the effects of the depression we have seen that the policy which has been accepted has been the reduction of such factors of costs by industries as are within their control and that employment and wages and salaries have suffered considerably in consequence.

250. Both Government and the Railway Administration have been compelled to resort to heavy retrenchments and curtailment of expenditure and because these steps have not proved adequate, cuts have been made in the salaries of public servants of 5 and 6 per cent

according to grade. Despite these savings balance has not been restored and additional taxation and freight charges have been superimposed.

251. The theory has been that the lowering of the wage costs of production would remedy the fall in price, and that the process must continue until uneconomic or "rickety" enterprises were weeded out. The theory thus propounded completely overlooks the prospect that a continuation of the process was bound in the course of time to make all enterprises "rickety", and that by the partial application of the policy—by preserving intact contractual obligations and by increasing the burden of State expenditure—the time taken to achieve this end would be shortened.

252. After application for more than three years we have seen the inevitable economic deterioration that such a process must bring about. A policy of this nature could not possibly be expected to remedy the profound lack of equilibrium in the general economy.

253. In dealing with this aspect of the problem it is interesting to recall the views expressed by the Right Honourable Neville Chamberlain when addressing the World Economic Conference on behalf of Great Britain. He said, *inter alia*, "In the opinion of the United Kingdom delegation an attempt to obtain equilibrium by further large reductions of cost would be attended by intolerable suffering and holds out no hope of success. No doubt it would be possible to restore equilibrium between prices and costs by reducing costs if only prices would remain steady. Under present conditions that does not happen but on the contrary an all round reduction in costs produces further deflationary effects on prices so that costs and prices chase each other downwards without ever getting to equilibrium. Moreover, there is one all-important entity in each country which finds it peculiarly difficult to reduce its own costs. I mean the Central Government. Every Finance Minister in the world knows only too well how tremendously resistant public expenditure is to reduction if only for the reason that so many of its obligations are fixed in terms of money. A policy of reducing costs and prices has the inevitable effect of very greatly reducing the national income with the consequence that in order to balance its accounts the Government must take by taxation a larger and larger proportion of the income of the country. Sooner or later, usually sooner, this process is found to be intolerable and countries bent on securing heavy reductions in costs and prices find they have secured merely an unbalanced budget for which no practical cure can be found."

254. The external factors affecting our economy have been completely neglected in the official policy on the grounds that they are entirely outside local control.

255. It is true that the East African territories play little or no part in world movements and although all markets in the world are open to us the greater part of our trading interests are interwoven with those of Great Britain whilst our financial and political interests are directly and, for all practical purposes, entirely in association with Great Britain.

256. Despite these associations, however, our national economic interests on broad lines are separate and distinct. Great Britain is a great manufacturing centre and a most important creditor country. Kenya on the other hand in common with the rest of the Colonial Empire is a primary producing country and a debtor to Great Britain, the economic policy she pursues must, therefore, be related to her own needs if she is to maintain budgetary equilibrium and safeguard her economic prosperity.

257. Wherever reference has been made in this Report to prices the quotations given are taken to mean London market prices in view of the fact that London represents the essential market for the trade of the Colony.

258. The very marked and continuous fall in the general level of commodity prices that took place in Great Britain cannot possibly be attributed to non-monetary causes. Where there are disturbances in the economic field brought about by over-production or artificial restraint or from some other dislocation there would be movements in price over a restricted range of commodities but when a general and sustained downward movement is in evidence over the whole range of prices the only possible explanation lies in monetary causes.

259. The level of prices is the value of money. A rise in prices does not cause—it is a fall in the value of money, since it means that a given quantity of money will exchange for a smaller quantity than before of other things. A fall in prices is a rise in the value of money, since it means that a given quantity of money will exchange for a larger quantity than before of other things. The value of money depends, like the value of everything else, on the relation between the supply of it and the demand for it.

260. The great and continuous fall in the general level of prices in Great Britain presupposes the existence of a conscious factor at work determined to increase the purchasing power of money, the result of which has been to increase or appreciate the value of the pound sterling in terms of commodities. The measure of the fall in prices is the inverse measure of the increase in the value of money.

261. We have now to examine the effect of this appreciation on the value of sterling on our national economy.

262. The control of the East African monetary system is vested in the East African Currency Board which was constituted in December, 1919. The constitution, duties and powers of which are defined by the regulations made by the Secretary of State. On the 10th August, 1921, The Kenya and Uganda (Currency) Order-in-Council of 1921 was passed providing for the coining of a British East African shilling which should be the standard coin in Kenya and Uganda. Similar action being subsequently taken for Tanganyika Territory. The Order-in-Council provides that :—

“Where any sum due to be paid after the commencement of this order is payable in pounds or pounds sterling, whether the obligation to make the payment was incurred before or after the commencement of this Order, the payment may be made in shillings at the rate of twenty shillings to the pound or pound sterling.”

263. The extant regulations made by the Secretary of State and which are dated 11th July, 1932, provide *inter alia* that :—

“7. The Board may charge for coin or currency notes to be delivered in East Africa against prepayment in London such premium above the nominal value (at the rate of twenty shillings to the pound) not exceeding the actual cost of transporting specie (packing, carriage, insurance) as they may think fit, and may vary the charges from time to time within this limit. If coin or notes are delivered on telegraphic order or order by air mail to East Africa, the Board may increase the premium as they think fit.

“8. The Board will, when required, arrange for the issue against coin or currency notes tendered in East Africa of drafts payable in sterling in London at a charge not exceeding the cost of transporting specie from East Africa to London, and may, at their discretion, issue telegraphic transfers on London on such terms as they may think fit.”

264. These references to the enactments governing the currency in use in the East African territories indicate that the intentions were to place the local currency at a par of exchange with sterling. The earlier history of East African currency has no direct bearing upon the present problem.

265. By maintaining the East African shilling at par with sterling in the terms of the regulation governing exchange there

has thus been introduced into the East African monetary system a lack of flexibility which has made it impossible to correct any monetary disturbance.

266. We have seen that even during the years of prosperity when in addition to a high level of export prices there was considerable expenditure of loan money within the Colony the balance of trade was adverse and consequently there was an excess of remittances outward. That this tendency was not confined to the Colony of Kenya to be corrected by the balance of trade in the other territories is clear by the fact that in the operations of the currency basin as a whole there was a contraction in the total value of the currency in circulation and a drain upon the Currency Board reserves.

267. Had the rate of exchange moved against sterling there would have resulted a stimulus to exports and a tendency to eliminate unessential imports. Balance would have been restored by an increase in remittances inwards by the appreciation in local currency of exports sold on the sterling market, whilst the higher costs of outward remittances would have checked unnecessary purchases.

268. But the fact that the regulations did not provide for any exchange control exceeding the actual costs of transporting specie, despite the fact that there was no specie on any use to transport, has resulted in a continuance of the dissipation of reserves and the contraction of the currency in circulation.

269. As we have noted the Currency Board reserves have fallen from £2,295,000 at the end of 1928 to £686,000 at the end of 1933 or by £1,609,000 and the currency in circulation by £1,830,000 between the years 1928 to 1932.

270. An examination of the bank statistics reveals that there has also been a contraction in the deposits subject to cheque including Government deposits as the following figures disclose:—

<i>Year.</i>						<i>Quarterly mean.</i>
						£.000
1927	...	...	...	...	...	£4,020
1928	...	...	...	...	...	3,557
1929	...	...	...	...	...	3,336
1930	...	...	...	...	...	3,132
1931	...	...	...	...	...	3,027
1932	...	...	...	...	...	2,910
1933	not available.					

271. With the contraction of the volume of money in circulation the laws of supply and demand operate and the value of money rises and prices fall, thus disturbing the equilibrium between money claims and goods given in exchange. Whilst the retention of a nominal rate of exchange (relatively small depreciation on sterling) accompanied by a loss of reserves was a clear indication of the over-valuation of the East African currency.

272. We have already examined the effects of the continuation of this policy on the internal economic condition of the country. These effects may be briefly summarized as producing an overwhelming distortion in the rentier claims against those of the entrepreneur involving as we have seen the increasing inability of the latter to discharge them.

273. Since most of the primary products can no longer be exported at a profit to the producer, owing to this appreciation of sterling and shilling costs, any relief even in shillings costs which lead to a revival of profitable productive effort would tend to rehabilitate the economic development of the Colony.

274. From the statistical review which we have given of the conditions of the Colony's industries, of the effect that these conditions have had upon the Colony's finances, it is clear that the deterioration disclosed has been cumulative. It is equally clear that the re-adjustment required must be drastic.

275. With the continuous fall in the sterling price level of commodities there has been a proportionate distortion in all local shilling costs and the restoration of equilibrium can only be brought about by an equal readjustment of claims. A failure to readjust the position has endangered "the principles upon which modern economic society is formed namely the dependence of the productive process on the expectation of normal profit to individual concerns and the sanctity of contract. For to allow prices to fall while social forces maintain wage-costs, obliterates profits; and the attempt to reduce non-contractual incomes, without power to abate contractual incomes immediately, jeopardizes, both nationally and internationally, the sanctity of contract." (MacMillan Committee.)

276. We urge, therefore that one of the fundamental pre-requisites for the return to more prosperous conditions is the reduction of the sterling exchange value of the East African shilling to a point at which costs and prices could be brought into harmony.

277. To what percentage the East African shilling should be at a discount to sterling is a problem with which we felt ill-equipped to deal. Nor in the absence of practical experience can the rate

be stated with any exactitude. The careful study of the data provided by our examination of the problem leads us to propose that no less a discount than 33½ per cent should be initially quoted to endeavour to restore in part the distortion between the price levels of 1928 and the value of money then ruling, and that the management of the exchange from the time of its first application should be guided by the balance of remittances over a reasonable period of time uninfluenced by seasonal or temporary movements.

278. It is as well to state here that the proposal does not involve any departure from our existing monetary standard. The East African currency standard is based upon sterling. The proposal involves the amendment of the existing Order-in-Council and of the regulations governing the powers and duties of the East African Currency Board to impart greater flexibility in the application of a monetary policy in the interests of these territories. In imparting this flexibility it is not proposed that the exchange should be subject to constant and disturbing fluctuations but that the control of the exchange movement should be under regulation by the Secretary of State.

279. It has been represented very strongly to us that a departure from the parity of the East African shilling with sterling would represent a moral if not a legal breach of contract with the Civil Servants of these territories. The object we have in view is to restore the normal relationship between price levels and the value of money. Because a fortuitous distortion has appeared between money claims as against the claims of other sections of society is no reason against their readjustment nor can the claims be upheld in equity. When during the period following the war—a period of inflated prices—the costs of living were high the salaries of the Civil Servants were adjusted upwards. The special allowance then introduced was subsequently incorporated in part in the substantive salary of all grades. The present proposal does not attempt to readjust the emoluments of the Service with any reference to this earlier period.

280. Furthermore we recognize that the difficulties these territories are experiencing must be common to all other parts of the Colonial Empire who are dependent for their economic well-being on the value and volume of the export of primary produce and that whilst differences may exist as to degree they are equally in need of the relief that every other country in the world has taken to adjust their monetary difficulties.

281. The suggestion that those who seek their careers in the service of the Colonial Empire are in a specially privileged position and are, therefore, to remain unaffected by the stresses and strains

to which the Empire has been subject is one which strikes at the very foundations of equity. We are dealing with a world catastrophe and we are unable to appreciate why any one section of the community should be protected from an adversity that has profoundly affected all others and because of this protection should still further jeopardize the prospects of recovery. We have not been convinced that members of the Colonial Service, either past or present, are not prepared to share equally in the troubles that have been forced upon the territories they have helped to administer.

282. We wish to emphasize that we have no desire to belittle the importance or the complexity of this question. We recognize that in times of stress or adversity all salaried classes are particularly vulnerable to attack. Consideration of the position of Civil Servants has been specifically excluded from the purview of this Committee, nor do we feel competent to deal with it. We believe that as in other parts of the world during their crises that this matter should be considered and probed by a special tribunal set up for the purpose so that the effects of our proposal should receive impartial and just consideration.

283. We have made an examination of the effects of the proposal upon the financial position of the Government and of the Kenya and Uganda Railways and Harbours and of the manner in which any necessary readjustments can be made.

284. We are dealing first of all with the position as it would affect the Railways and Harbours Administration. Taking the figures for 1933 it will be noted that the sterling commitments overseas of the Kenya and Uganda Railways and Harbours would be :—

Interest and sinking fund	...	...	£817,531
Railway imports	...	...	60,410
Coal imports	...	...	71,633
			<hr/> £949,574

This would mean that the Railway would have had to find on their 1933 figures a further £474,757 if the East African shilling were at a discount of 33½ per cent on sterling. It is, of course, realized that the Administration has investments overseas of practically the whole of their renewal and betterments funds amounting to £1,653,136.

285. The Railway annually remit for investment in London the majority of their very considerable renewal and betterment funds. In transferring this money to London a reduction in its sterling value would take place. The Railway has also other small commitments in London such as professional fees, but this cannot materially affect the position. It is also possible that there may be certain increases in costs of passages for leave movements.

286. In view of the circumstances of the Colony and the necessity of maintaining the lowest possible burden upon the community, the resources to provide the additional quantity of East African money amounting to £474,757 to meet this overseas obligation could have been obtained from the following :—

Profit for 1933	...	...	£232,836
Reduction in renewals contribution from 2½ per cent to 1½ per cent			£146,176
			£379,012
Balance still required	...	...	£95,745
			£474,757

The balance of £95,745 represents an increase of approximately 4 per cent on the Railways and Harbours receipts for the year.

287. The contributions to the Renewal and Betterment Funds for the year amount to £365,444. This is arrived at by assessing the depreciation at 2½ per cent. It is agreed by the Administration themselves that this contribution is fixed on too high a scale and were it reduced to 1½ per cent a saving of £146,176 would be effected. This would mean that in order to balance the Railway budget last year it would have been necessary to increase the earnings by £95,745 or under 4 per cent.

288. In our opinion, the result of our recommendations, because of the increased net return to the producer, would have the immediate effect of increasing the total of the traffic carried by the Railway, the added receipts alone would obviate the necessity of increasing the Railway and Port charges.

289. We recognize that under present conditions the Railway Administration could, by adopting the first two proposals above, enable them to effect some reduction in the freight and port charges but the relief therein provided would not materially increase the net return to the grower.

290. In dealing with the position of the Colony, the expenditure for 1934 can be dissected as follows :—

	£
(1) Personal Emoluments	1,206,694
(2) Local and other Charges	430,896
(3) Overseas Charges (Civil Pensions, Debt Commitments and Government Purchases, etc.)	1,382,044
(4) Local Transport	90,364
(5) Passages	61,078
(6) Grants (Imperial Airways, etc.)	16,965
TOTAL	£3,188,041

The Material Figure is that of Overseas Charges 1,382,044
From this, must be deducted the following figures—

	£
Railway Interest Sinking Fund	817,531
Pensions and Gratuities	171,500
Post Office Remittances	29,585
Colonial Development Fund	5,566
Leaving a Total of	£357,862

This would mean that the added revenue required to be found by Government would amount to £178,931 with an exchange at a discount of 33½ per cent against sterling.

291. In addition to this figure there would be some increase in respect to the passages payable for officers on leave.

292. The effect of our recommendation is to restore the relationship of internal shilling costs to the price level of commodities which existed during the years 1928 and 1929. We have recorded that the effect of the failure to relate these factors has been to diminish his capacity to buy and consequently the purchasing capacity of the country dependent on his prosperity. The measure of this diminution is disclosed by the trade imports of the Colony which fell from £4,950,377 in 1928 to £1,938,167. The increase in revenues of the Colony are dependent upon the restoration of this capacity.

293. We have realized that it is incumbent upon us to show that our recommendation will assist in restoring a sufficient margin of profit to the producer to enable him to resume purchasing. We have, therefore, analysed the costs of production of certain industries separating shilling costs from sterling costs. The same analysis can be made of all industries with similar results. The industries selected are maize, sisal, coffee and butter, and the results are as follows :—

MAIZE
LONDON MARKET PRICE .. . Sh. 22/50 per quarter.

PRESENT COSTS OF PRODUCTION		COSTS AT PARITY WITH STERLING PER BAG	
		Sh. cts.	Sh. cts.
Rent		05	
Native Labour		1 25	
Native Feed and Seed		40	
European Labour		1 00	
Repairs to Implements, Oil, Grease and other Incidentals		69	
Repairs to Wagons, etc.		28	
Bag		65	
Transport		50	
Interest		60	
Selling, Storage, etc.		50	
Half Branch Line		13	
		6 05	
MARKETING COSTS		PER TON	
LOCAL SHILLING COSTS—			
Railage, Wharfage, Port Storage		20 70	
Grading, Marking, Telegrams, etc.		1 55	
		22 25	
STERLING COSTS—			
Freight		19 25	
Superintendence		40	
London Commission, Exchange, Interest, Insurance, etc.		4 88	
		24 53	
	TOTAL	..	46 78

	Sh. cts.
Sh. 22/50 per quarter, equals	105 00 per ton
Less present Marketing Costs	46 78
	58 22 or Sh. 5/29 per bag.
At 11 bags per ton, equals	
Present Costs of Production	6 05
Balance after Sale	5 29

LOSS .. Sh. 76 per bag.

EAST AFRICAN SHILLING AT 33½ PER CENT DISCOUNT ON STERLING.

	Sh. cts.
Sh. 22/50 per quarter, equals	105 00 per ton
Less Sterling Marketing Costs	24 53
	80 47
Fifty per cent Appreciation on Conversion	40 23
E.A. Shillings	120 70
Less E.A. Shilling Marketing Costs	22 25
	98 45 or Sh. 8/95 per bag.
NET RETURN TO GROWER .. Sh.	8 95
Present Shilling Costs of Production, 6·05	
Assume an increase of Internal Shilling Costs of 15 per cent = 1·21, equals	7 26
PROFIT TO GROWER .. Sh.	1 69 per bag.

294. The profit to the grower given above is East African shillings 1.69 per bag. To arrive at the increased purchasing capacity of the grower, this figure has to be multiplied by the total production of maize in the country whether of native or non-native origin since the figure of the internal price will be based upon export parity.

SISAL

295. London market price £14 per ton.

PRESENT COST OF PRODUCTION	Cost at Parity with Sterling, Per Ton	Maximum Increase at 33½ per cent with Sterling
	Sh. cts. Per cent	Sh. cts.
Administration Charges (including Salaries, Bank Charges, etc., but no Overdraft)	30 00 at 15	4 50
Cutting (Labour)	16 00 " 15	2 40
Moving and Laying Rails (Labour) ..	5 00 " 15	75
Loading and taking to Factory	7 00 " 15	1 05
Decorticating and Unloading (Labour) ..	6 00 " 15	90
Dry and Baling (Labour)	6 00 " 15	90
Sundry Staff (Labour)	2 00 " 15	30
Recruiting Native Labour	3 00 " 15	45
Factory Material	4 00 " 50	2 00
Transport Material	5 00 " 50	2 50
Repairs and Renewals : Sh. cts.		
Factory Buildings 12 50		
Transport Vehicles 2 50		
Upkeep of Motors and Petrol	15 00 " 33½	5 00
Live Stock Expenses including Losses ..	3 50 " 50	1 75
Insurance	5 00 " 20	1 00
Sundries	3 00 " 50	1 50
	50 00 " 20	10 00
Marketing Costs	165 50	36 00
Railage	30 00 " 10	3 00
Coast Charges	16 00 " 10	1 60
Government Cess	1 00	
	212 50	40 60
<hr/>		
STERLING COSTS—		
Ocean Freight	60 00	
Insurance	2 00	
Commission and Exchange ..	8 00	
	70 00	40 60
TOTAL .. Sh.	282 50	

	<i>Sh. cts.</i>
Sisal at £14 per ton	280 00
Present Production and Marketing Costs, excluding Interest and Development	282 50
	2 50

EAST AFRICAN SHILLING AT 33½ per cent DISCOUNT ON STERLING—

	<i>Sh. cts.</i>
Sisal at £14 per ton	280 00
Less Sterling Costs	70 00
	210 00
50 per cent Appreciation on Conversion	105 00
	315 00
	<i>Sh. cts.</i>
Less East African Shilling Costs	212 50
Plus Maximum Appreciation	40 60
	253 10
	<i>Sh. 61 90</i>

Excluding Interest and Development Cutting-out.

COFFEE.

296. The effect upon the costs of production of coffee cannot be set out in the same detail for critical examination as was the case with maize and sisal as no itemized costs have been given to us. But in this industry consideration of the effect of an East African shilling at a discount of 33½ per cent with sterling can be reversed.

297. Taking the Nairobi sale price of £45 per ton for fair average quality, the sum of Sh. 62 for railage plus the coastal charges have to be added to obtain the f.o.b. price. In the other examples given the charges for ocean freight and overseas market have been regarded as sterling charges. The amount therefore for conversion is :—

	<i>£ s. cts.</i>
Nairobi Sale Price	45 0 00
Railage	3 2 00
Coastal Charges	18 20
	49 0 20
50 per cent Appreciation Conversion	24 10 10
	£73 10 30

Before the net realization to the planter can be ascertained there has to be deducted from the f.o.b. value of £73/10/30 the following items :—

	£ s. cts.
Railage, Nairobi to Coast—Sh. 62 plus 10 per cent ..	3 8 20
Clearing Charges—Sh. 60 plus 15 per cent	3 9 00
Coastal Charges	18 20
Transport to Estate ? .. .. .. ..	.. .. ..
Storage Charges, Nairobi ? .. .. .. ..	.. .. ..
Estimated Costs of Production	50 0 00
Estimated Increased Cost of Production—15 per cent	
Average	7 10 00
	Total ..
	65 5 40
<i>Less</i> Transport and Storage Charges—Net Return to Planter	<i>8 4 90</i>
	F.O.B. VALUE ..
	£73 10 30

As compared with the present position as follows :—

	Per Ton
	£
Average Price, Nairobi Sales	45
<i>Less</i> Cleaning Charges	<u>3</u>
	<u>42</u>
Cost of Production	<u>50</u>
Loss to Planter	<u>£8</u>
Plus Storage and Transport Charges.	<u> </u>

BUTTER.

298. As an instance of the effect of the proposal on the butter industry, it was stated in a memorandum prepared by the Elected Members organization for presentation to the Secretary of State that Kenya butter for export at that time was worth 34 cents per lb. f.o.r. factory. Nearly all Kenya's rivals in this particular industry, however, benefit at the present time to the extent of 24 per cent on account of their exchange. This meant that butter sold in London at Sh. 80 per cwt, brings in a return of Sh. 85/9d. to the New Zealand producer, but only Sh. 56 to the Kenya producer exclusive of any benefit from the butter levy. Kenya butter is only realizing Sh. 66 to Sh. 68 on the London market at present.

299. In each of the industries we have selected we have given estimates of the maximum rise in costs which could take place. These estimates are purely conjectural and we do not necessarily

subscribe to them. That articles imported for consumption in the Colony will appreciate is clear, and whilst this appreciation will be 50 per cent in the f.o.b. value at the port of entry this increase will not mean an increase in the retail selling price of 50 per cent since many of the charges subsequently incurred are East African shillings charges. Furthermore, there will be an immediate stimulus to the sale of local produce with its corresponding revival of internal circulation of money and some easement of the difficult problem of external payment. The experience of other countries that have already adopted the course proposed was the revival after a short period of dislocation of an increase in imports which was brought about by the increase of purchasing power and confidence engendered by a return to profitable production.

300. The influence upon commercial enterprise of the reduced imports has meant that as turnover has diminished the burden of certain fixed overheads has increased proportionately whilst the value of capital assets, particularly when invested in building, has steadily deteriorated.

301. In gauging the effect upon imports we have seen the Colony's capacity to purchase is directly related to the volume and value of exports. An increase in the volume must increase the sterling resources of the country and thereby its importing capacity. Any increase in the sterling turnover of the area necessarily brings in its train a disproportionately greater increase in the shilling turnover of the area.

302. It is obvious therefore that the revenue both from sterling sources and from shilling sources via indirect taxation is increased in proportion to the increasing turnover. The balancing of the Colony's budget can only be achieved by the restoration to the producer of a margin of profit. We believe that the proposals we have urged together with the continuance of unrelaxing effort to maintain the standard of Government expenditure at the lowest possible level consistent with the essential needs of the Colony make this practicable.

303. In past years it has been possible for the Colony to contribute large sums in indirect taxation on the basis of profitable production. With a fall in retained imports from £4,950,377 in 1928 to £1,938,167 in 1933 it is not possible further to tax the community to maintain an expenditure that has risen in the same period from £2,834,647 in 1928 to £3,168,035 in 1933 unless there is a restoration of national income. Even with the partial restoration that can be expected we believe it possible to meet the additional £178,931 required for Government's overseas obligations. We have not been able to study methods of saving upon these

commitments, but we are confident that the necessities of the strictest economy would point the way for reducing even this amount to still more reasonable proportions.

304. Much stress has been laid upon the value of the recently discovered goldfields in the Colony and of the prospects of other industries. We hope and believe that the effects of these new industries will be of great value and economic importance to the country. But they are still in their infancy and no accurate computation can as yet be made of their potential wealth. For some years to come they will need fostering by the country which will entail considerable expenditure to provide for them the facilities they need. It is only when they are firmly established can they be expected to provide revenue to the Colony in return for the assistance they have been given. At no time, however, can they be regarded as replacing in importance the necessity for developing to the full the agricultural potentialities of the Colony as a whole.

305. It has been stated by those who have not sufficiently studied the facts that were our recommendations carried into effect the internal purchasing power of the shilling would fall to 66½ per cent of its present value. Statistical information is available quite definitely proving that the real internal purchasing power of the shilling has in fact increased after the change has taken place in countries where this policy has been adopted. The necessity for the imposition of existing restrictions resulting in the maintenance of high internal costs would automatically be removed.

306. We wish here to reiterate that the position in which the Colony finds itself to-day has been brought about by the collapse in the value of primary products on the world's markets resulting in their production imposing a loss upon the established agricultural enterprise of the Colony. We see no indication of such an improvement in world prices as will stop the drain on the capital resources of the community. If, however, through some unforeseen circumstance an improvement in world prices did take place the effect of such an improvement would be to bring about lowering of the discount at which the East African shilling would exchange for sterling. Eventually the readjustments of the Colony's economic position brought about by material increase in the sterling value of its exports would result in parity with sterling being again achieved.

307. After the most careful consideration of the whole economic condition of the Colony and with a full appreciation of the fundamental nature of our recommendation, we are unable to see any prospect of arresting the approach of a national collapse except by the early application of a courageous action directed to reverse the very policy responsible for the progressive deterioration.

CHAPTER VI**GENERAL****NATIVE AREAS.**

308. We are in substantial agreement with that section of the main Report which examines the position in the native areas. We support the proposal for the appointment of additional agricultural officers in the Native Reserves and would stress our concurrence with the need of a positive policy of promoting production on a definite and sustained plan.

309. It is our view that many of the difficulties which tend to hamper the economic development of the Native Reserves are common to the country as a whole and are traceable to the fall in purchasing power. The overstocking problem in particular is more ready of solution if many of the present quarantine restrictions can be overcome and the purchasing power of the natives restored. It is only by facilitating trade between the pastoral and agricultural tribes for an interchange of commodities they are best able to supply and for which a definite want exists that a value can be restored to the native cattle in the country.

310. We are not hopeful of the possibilities of building up an export trade in beef in view of our geographical position and of the quality of the stock available. The only natural method of remedying the overstocking problem lies in opening up trade routes to their natural internal markets and progressive education in animal industry.

311. The deficiencies in native dieting offers a starting point from which to proceed which, coupled with an increase in their purchasing power, provides the only sound and hopeful approach to the solution of one of the most difficult and urgent problems facing the country.

312. It is less costly to prevent progressive erosion than to reclaim eroded lands. We would deplore a policy that seeks new grazing areas to accommodate the surplus cattle population if no adequate attempt is to be made to find an economic use for the annual increase of native cattle. We would urge that this matter be kept prominently before the members of the Standing Board of Economic Development, the appointment of which has received the support of this Committee and that this question be not set aside until equilibrium has been restored between the numbers and type of cattle owned by the pastoral tribes and the areas that are available to graze them without danger of deterioration.

OTHER SUBJECTS.

313. We are in agreement with our colleagues on the statements and conclusions contained in the main Report on the following subjects :—

- Land Bank finance.
- Standing Board of Economic Development.
- Economic statistics.
- The search for markets.
- Further settlement and tourist traffic.
- Roads and bridges.
- Transport charges.
- Gold mining.
- Standing Shipping Committee.
- Reduction in annual Railway depreciation charges.
- Timber industry.
- Shade-drying of hides.
- Bees-wax.
- Fruit growing.
- Pyrethrum—Imperial preference—through Railway rates—mixing in bond.
- Water conservation.
- Tsetse fly.
- Loan charges.

314. We are in general agreement with the desirability of organizing the marketing of native produce along the lines suggested but would urge the need of caution in the granting of any special licences.

315. We also desire to associate ourselves with the tribute paid by our colleagues to the Secretary of the Committee, Mr. V. Liversage.

316. In conclusion, whilst we deeply regret that it has not been possible to present a unanimous report upon the fundamental aspects of our inquiry, we desire to record our deep sense of obligation to our Chairman, Mr. G. R. Sandford, O.B.E. Not only has he conducted this long and arduous inquiry with tact, ability and despatch, but he has given us every possible assistance in furthering any lines of inquiry that would guide us in our conclusions.

CLAUDE B. ANDERSON.

GEO. C. GRIFFITHS.

F. CAVENDISH-BENTINCK.*

*Subject to my addendum and the proviso contained therein.—
F.C.B.

**NOTE BY COLONEL G. C. GRIFFITHS AND MAJOR
F. W. CAVENDISH-BENTINCK.**

CONTROLLED MARKETING.

We are in agreement with the main Report in their recommendations regarding the controlled marketing of various products.

We are of the opinion, it is in the best interests of the Colony, where the producers representing a considerable majority of the production of any particular article express a wish to have the marketing of that article controlled that legislation should be enacted to give effect to their wishes.

GEO. C. GRIFFITHS.

F. CAVENDISH-BENTINCK.

**ADDENDUM AND PROVISO BY MAJOR F. W.
CAVENDISH-BENTINCK.**

As has been stated in the opening paragraphs of the main Report, the first meeting of the Committee was held on the 5th of April, but I did not become a member until after Lord Francis Scott had left for England, nor did I attend any of the Committee's deliberations until the month of August, by which time the Report was already in draft form. I therefore did not have the advantage of hearing the evidence given or the discussions which took place on such evidence. As a result, however, of attending the closing stages of the Committee's deliberations and of studying the main Report, I have decided to sign the Minority Report, subject to the proviso contained in this addendum, for the following reasons :—

1. It was obviously necessary, before any recommendations could be made under the terms of reference given to the Committee, to present a clear picture of the present position in which the country finds itself. In the main Report it seems to me that this picture has not been faced. It has been glossed over and the impression is conveyed that the tide has turned and that amelioration of the present position is only a question of time. I am confident that the gold mining industry shows great promise, but even pre-supposing that a successful mining industry becomes established, the effects will not be felt for two or three years. Probably additional revenues will accrue to Government through royalties and registration fees during 1935, but, as has been stressed in the main Report, the industry requires fostering and such

moneys should, during the next few years, be spent on its encouragement. I can therefore see no circumstances which in any way substantiate the supposition that the tide is now on the turn and consider that the general picture presented by the Minority Report is far more accurate, in that it faces facts honestly and with courage.

2. Under the Committee's terms of reference it was instructed to examine and advise upon any proposals directed towards (a) the improvement of the Colony's balance of trade, and (b) the maintenance and development of its agricultural and industrial resources.

As regards (a), I can find no definite recommendations in the main Report which, under the present basic conditions existing in the Colony, will improve the balance of trade.

As regards (b), a review is made of the country's industries, compiled largely from extracts from memoranda submitted to the Committee. I do not consider that the real position in which the industries find themselves to-day is in all cases properly delineated in the main Report, nor are the basic difficulties confronting each industry made sufficiently clear, in that the price factors have been evaded.

3. It will nevertheless be appreciated that, with the exception of Mr. Puri, the members of the Committee all agree with the recommendations which are made in the main Report for the maintenance and development of the agricultural and industrial resources of this country. In the case of several individual industries I would, however, point out that the main Committee makes no precise recommendation, but expects concrete suggestions to be made at some future date either by other Committees or by the industry itself.

4. Unless the basic position is faced, the implementation of such generally agreed recommendations as have been put forward by the Committee would do but little to solve the main problem. At best they are mostly long-range recommendations, and many of them will necessitate extra expenditure. I would go so far as to say that in some cases, notably in the case of the butter industry, implementation of the recommendations made would render the position more difficult, as greater production would necessitate greater export at a loss. The fundamental trouble, which has been obvious for some years past, is the fact that the sterling prices of primary products are too low. The Imperial Government, by a declaration at the Ottawa Conference, and by a subsequent reaffirmation, appeared to be committed to a policy of raising the Price Level. To this policy, however, owing to various circumstances, effect has not been given. Meanwhile, although sterling prices of

primary products are becoming lower, such major costs as London charges, shipping freights, port dues, railway rates, road transport and taxation charges either remain rigid or have gone up. The problem is an Empire wide one, not merely local, but it seems doubtful whether the true position of all Colonies and Dependencies with London sterling obligations which are dependent on primary production for export has been appreciated either by the local Government or by the Imperial Government. I consider that the problem, as it affects Kenya, has been ably and concisely set out in the first six chapters of the Minority Report.

PROVISO.

I am not, however, prepared to go so far as the writers of the Minority Report in their definite recommendation made in paragraph 276. I agree that the recommendation made cannot be regarded from a purely Kenya point of view and that it must be examined from the East African viewpoint and that any final decision must rest with London, as there may be considerations which must be taken into account which are beyond our ken. I therefore feel that I am not qualified to come to any definite conclusion and that the question should be fully examined by experienced economists. Nevertheless, failing an immediate rise in the sterling prices of primary products, something definite has got to be done or the agricultural communities in these Colonies and Dependencies will be faced, at first individually and subsequently collectively, with disaster. That being the case, I consider that the suggestions put forward in the Minority Report should receive the careful and unbiased consideration, to which I refer above, from the Imperial Authorities, who, in view of the action taken by certain Dominions in this regard, must now have a considerable quantity of relevant data available, as it would seem at any rate possible that, under the present parlous conditions, a reduction in the sterling exchange value of the East African shilling might temporarily afford internal relief. The mere fact of such an examination being conscientiously undertaken might lead to an adequate realization by the Imperial Government of our fundamental difficulties and proposals for some reasonable alleviation of the present state of affairs might result.

F. CAVENDISH-BENTINCK.

**NOTES OF DISSENT AND MINORITY REPORT BY
D. D. PURI.**

I regret to find myself in disagreement with some of the conclusions arrived at in the main Report. I wish most emphatically to declare that neither in the evidence presented to us nor in the deliberations within the Committee has it been proved to my satisfaction that some of the conclusions arrived at and recommendations thereon were in any way justified or warranted. I therefore dissociate myself on the following points:—

**THE PRINCIPLE OF THE USE OF REVENUE FOR
ASSISTING PRODUCTION.**

2. The necessity of assisting producers and taxing all classes of the community so as to keep the producing classes solvent and affluent is emphasized and in this connection attention may be drawn to the reservation of the Highlands for European settlers only and the reservation of other arable land for the African natives of the country. The Indian has been debarred for all practical purposes from owning any arable land and has thus been precluded from developing into a producing class.
3. The agricultural census frankly admits that the agricultural settlement of Indians is negligible. The whole Indian community occupies merely the position of small traders and merchants, having been forced into it by the economic policy of the Imperial Government.
4. Not being a producing community the injustice of taxing the Indians to assist the European producer is obvious. An equal incidence of taxation presupposes equal opportunities for contributing to the production of the wealth of the country. These opportunities have been denied to the Indian. The contribution of the section of the community that thus labours under a definite economic disability to the taxation revenues of the Colony must be proportionately less. Such a section can only be called upon to pay for the social and protective services rendered by the Government and for nothing more.
5. If this section is called upon to contribute an equal taxation for revenue, it becomes the duty and obligation of the Government receiving this revenue or enforcing this contribution to see that all economic disabilities are removed. I would go further and

say that the section will be entitled to a special subsidy in order that it should be compensated for the loss sustained over a continuous period of years during which the disability has existed.

6. In view of this, any subsidies or other forms of assistance to European settlers, should not form a charge on the revenues of the country, which include revenue received from the Indians and there should be no distinction in the social and protective services rendered to the latter by the Government.

7. If this just principle in distributing the incidence of taxation is not accepted, the economic policy of the Government must be revised so that the Indians as such should not suffer under any disability whatsoever and may be enabled to produce wealth for the betterment, prosperity and economic wellbeing of the country as a whole.

8. Only 12½ per cent of the land alienated to the Europeans has so far been brought under cultivation. Put into other words the European section settled in the Highlands are permitted to hold away from all prospects of cultivation and development 88 per cent of the finest and most productive of the agricultural land of the Colony, and for this service of hoarding land and with-holding it from economic exploitation and use it receives bounties, subsidies, loans and freedom from taxation. This state of affairs in Kenya ought to be remedied at the earliest possible moment. As a first measure of reconstruction all the land that cannot be handled by European settlers should be given up by them to the Crown, the productive capacity of such land should be assessed in its potential money value and a tax on all uncultivated land on the basis of the assessment indicated above should be levied. Such a tax has been suggested by Europeans themselves and justified by arguments. [Extracts from the Memorandum by the Rongai Valley Association are quoted below :—

MEMO. "An Undeveloped Land Tax to provide funds with which the Economic Development Committee could work.

66 **Justice.**—It cannot be urged that the tax would be unjust. The holders of U.D. (undeveloped land) stand to reap the benefits of the work and experiments of present farmers. An unoccupied farm is not neutral. It is definitely a handicap. It harbours undesirable natives, vermin such as wild pig, porcupines, etc., and is frequently a wholesale distributor of noxious weeds. Moreover much land is even now being held for prices quite unjustified by present prospects, so that the potential production of the Colony may be being held up. Any development scheme which benefits the farmer, benefits the landowner.

Advantages.—Besides providing the money which is so urgently required, it would also serve the following useful purposes :—

1. It would minimize foreclosures on producers.
2. It would encourage development.
3. It would help to reduce unemployment.
4. It would provide the intending settler with a varied choice of land at fixed prices, and provide the equivalent of a free advertising service to those genuinely wishing to sell their land at reasonable prices.
5. It would probably start a system of leasing land at low rents for fixed periods, and so open up an opportunity for settlers with small capital.
6. It would give the Dependencies Office in London by far the strongest card that it has ever had.
7. It would demonstrate the sincerity of our wish for increased settlement.
8. It would discourage the land speculator.

Objections.—It is not enough to show that there are difficulties or that in some hypothetical cases there might be hardships. When the pneumatic tyre was invented, doubtless many clever people pointed out the defect that it was puncturable, and though this was, and is still true, we do not run our cars on solids any more. It must, therefore, be shown that the tax would be worse than the present state of affairs.

1. Government will of course say that it is impracticable. It was their considered opinion that it was impracticable to differentiate between oil used for tractors and that used for lighting up to a few months before the introduction of the kerosene rebate, a measure that never gave the slightest difficulty either in drawing up or administration. The word impracticable officially means 'we don't want to be worried with this, and will shelve it if we get half a chance'.
2. It is impossible to fix the standard of development. The main test would be a sincere attempt to produce from the land according to the resources of the resident owner. The standard at the beginning would be low and would gradually increase. This objection is purely obstructionist.
3. What if the land were mortgaged above the price at which the owner valued it? Either the mortgagee would have to pay the difference, or persuade the mortgagor to do so, or he would have to foreclose, and pay the whole tax himself.

We may spare ourselves the rather nauseating hypocrisy of shedding tears over foreclosures on absentee landowners until the Government has shown some act of sympathy with farmers who have been evicted from their homes... It would not be necessary to point out that from the Colony's point of view, if all the undeveloped land was foreclosed upon, it would make no difference whatever, while every working farmer who is put out of business reduces the Colony's production.

4. It involves a new principle. It cannot be admitted that this objection is true or that it is a valid objection even if it were. The principle of compelling sale of land under certain circumstances was established by the Irish Land Commission. But, apart from that, we should not have got far in the war if we had refused to use any weapon other than those we had used in previous campaigns, and we shall not get far with the present depression until we learn the very old lesson that new wine should not be put into old bottles.

5. It would destroy our credit. (Oh, yes, we have a lot of credit when the threat of its loss is useful). Let anyone who is impressed by this objection take the deeds of an average farm to a bank and ask what he can get on it. By this he may estimate the extent of our loss. The answer in both cases will be nothing. It is urged that it is our future credit that will be damaged; first let us see the credit. Actually, if prosperity returns, credit will return.

6. We consider this the acid test of sincerity in advocating increased settlement. You cannot have a room cleaned if you refuse to allow the furniture to be moved. It is doubtful if any agricultural country in the world has had so little help as Kenya. We trust that if this scheme is disapproved, some alternative will be forthcoming that will give greater benefits with fewer disadvantages, and are anxious to hear what it is."

7. All subsidies, loans, bounties, reductions in railway freights and assistance from State revenues taking the form of a charge on it, definitely intended for developing European agriculture should form a special account head and should be a charge on a special fund formed from the proceeds of a land tax levied on European agriculturists.

PARA. 10. In this connection it may be pointed out that the Land
483 Bank has been of no help to the Indian agriculturists of Kibos or of the Coast. It has also been of no use to African producers. For the same reasons all loan charges including sinking fund relating to loans expended for the purpose of assisting European

agriculture should not be met from general revenues but from the contribution of European farmers to taxation specially designed to meet those charges.

11. As not being producers, the Indian community are opposed to the present Railway policy and the layout of the branch lines. While the main railways serve European agricultural areas intensively and the branch railways almost exclusively important African areas are left without any service.

12. The rating schedule of the Railway is unjust and unfair. PARA. It transfers the legitimate burden of the European agriculturist to the shoulder of the Indian and African consumer and penalizes attempts at comfortable and civilized living by a heavy goods rate on imported articles. The producers must pay the legitimate cost of transport of their goods to the Coast that is to say the real cost of maintaining the Railway and running it. The high cost of using imported articles of every day use impedes the progress of the African and imposes an intolerable burden on the Indian. 563

13. So long as the policy of the Government continues to be that of restraining the Indian from being a producer in Kenya, any sound reconstruction is impossible. In order that the un-economic European agriculture should be just kept alive, both the Indian and the African must be taxed heavily and unjustly.

14. I am therefore opposed to any measures that are proposed for the reconstruction of the economic life of the Colony on the assumption that the present day economic organization will be maintained intact. I am opposed to the inclusion of Indians in the general scheme of taxation the greater portion of which goes to subsidise only one section of the community.

15. I am also opposed to the continuance of the whole system of agricultural finance adopted in this Colony. Even if it is admitted that Kenya is an agricultural country, it must be conceded that more men are needed to exploit agriculture in this Colony and that the required number of men are not available from the policy of making Kenya a white man's land. In order to be profitable the development of land in this country has to be intensive and not extensive. There is neither the requisite number of exploiters nor of labourers. All development policies based on extensive experiments must therefore fail. Any support lent to the present day policy of development is support given to a policy of waste and ultimate bankruptcy.

16. The only way to reconstruct the economic life of Kenya is to universalize agriculture and production. A landowning class maintaining itself on subsidies, African labour and the exploitation

of the consuming sections of the community can never ultimately succeed. The world depression, and absence of industries in the Colony, leaves no surplus that could be utilized for the maintenance of a landed community. The measures that restrict Indians to trade and the African to the cultivation of inferior crops cannot last long and as consciousness amongst the African people grows labour must always be deficient. In order to maintain the European agriculturist in his position of predominance the administration must continue to work in a circle; heavy and unjustly distributed taxation, exclusion of the non-European races from competitive opportunities of production, breakdown and more unfair taxation.

17. It is therefore essential that real statesmanship should see the impossibility of the task of reconstruction so long as the present order of things continues. Either all races should be brought into the sphere of production and assisted in the varying degrees of their capacity to produce in their work or those who enjoy the monopoly of production should be specially taxed.

18. The latter can be achieved by resuming all land in the possession of private owners which has no prospect of being developed within a reasonable period, by taxing all the residue of undeveloped land continuing to be under private ownership, and by imposing a special tax on land owners for the creation of a fund that could be utilized for rendering assistance to agriculturists in distress.

19. The former can be achieved by repudiating the policy of maintaining the Highlands reserved for Europeans and by settling Indian communities on fertile land by encouraging the small farmer. An additional measure is to open up areas adjoining the Coast and between the Coast and Nairobi to agricultural enterprise and to subsidize all attempts towards that end. The geographical position of the Highlands must always operate as a detriment to their being profitable.

**PARAS.
190 &
191**

THE MAIZE INDUSTRY.

20. With regard to the recommendation in paragraphs 190 and 191, I oppose any sort of suggestion of a compulsory maize pool on the following grounds :—

1. That the maize industry could only be valuable to the country if it paid its way. If it had to be subsidised and supported permanently in one form or the other, its benefits to the country would become extremely doubtful.

2. That native producers are not likely to benefit under any such scheme to any material extent.

3. That consumers of maize are mostly natives and they would have to pay the cost of any such scheme directly or indirectly.

4. That the native to-day is not in a position to bear this extra burden, and the effects of such an increase in their cost of living would result in reduced trade turnover with consequent loss of Customs revenue.

5. That the introduction of the principle of monopoly is objectionable and harmful in trade. It would also tend to restrict selling opportunities to natives, which would ultimately have an adverse effect on production.

6. That it is objectionable from the point of view of equity and justice to make natives pay for the scheme which is mainly in the interest of European maize growers.

7. That it will interfere with the free flow of trade between Kenya and adjoining territories of Uganda and Tanganyika and might become prejudicial to the Customs agreement.

21. The arguments produced before the Committee were based on the advantage of the maize industry to this Colony and the necessity of maintaining and protecting it.

22. In my view, the production of any commodity is only beneficial when it pays its way and any subsidy or assistance can only be justified in the initial stages of any industry on two grounds—

(a) that it should be for a limited period only, with a view either to putting such an industry on a sure foundation or proving that such an industry is an uneconomic one; and

(b) that after such a limited period such an industry should stand upon its own feet and be able to meet world competition.

23. When an industry has to be supported by subsidies or some such scheme as a compulsory pool, more or less permanently, it becomes a definite burden and its value to the country becomes doubtful.

24. The situation is further complicated when the same article is produced by races at different stages of civilization and at different costs of production.

25. The European maize industry since its inception has continuously sought for and obtained some sort of help either in the shape of exceptionally cheap railway freight for export or direct subsidies from the State, which amounted to £35,000 in 1930 and

a so-called loan which to-day stands at a figure of £111,460 without interest and which may as well be treated as a bad debt. Even when maize was realizing high prices in the world markets the industry continued to demand such subsidies.

PARA. 26. It is argued that without the production of maize for an exportable surplus, the internal supplies could not be maintained at reasonably stable prices, and that, in the case of a failure of crops the price would go up. In my view, an exportable surplus maintained at the cost of a high internal price could hardly be called an insurance against the failure of crops. Want of rain or locust depredations could not save the country from a scarcity of maize. In the case of a failure of crops it will be cheaper to import maize—than to subsidize European maize year in and year out, on this score.

27. I do not think it could be reasonably assumed that, if a subsidy ensuring minimum prices to growers is not forthcoming, the maize industry would be ruined or that no European farmer will grow maize.

28. In my view those farms situate near the railway and enjoying the benefits of rich soil, and efficient management, would continue to grow maize. It should also be borne in mind that natives are not only producers but are also large consumers of maize and whatever the case may be they are not likely to stop growing.

29. The best course for the maize industry, therefore, would be to allow the growers to adjust themselves to present circumstances. The result may not be agreeable to individuals concerned, but it would ultimately be of great benefit to the country as well as to the industry.

30. Any scheme for the maize pool would have to operate in large scattered areas of native production, and it will be necessary to maintain supervision over large numbers of purchasers, millers, dealers, etc. The cost of such supervision and the arrangements for storage, delivery and payments at various convenient delivery points is bound to result in high overheads. Owing to the nature of the maize trade it is reasonable to assume that there would be a large number of disputes on the question of quality and grade.

31. To point another small instance—In Nyanza Province alone there are about 250 native water and power mills. They grind maize for natives on payment of grinding charges and in some instances, they buy maize from natives and sell maize meal to natives and non-natives. They would, therefore, come under the proposed pool scheme as traders. The difficulty of obtaining reliable records and details of their purchases and sales is obvious.

32. The agent that will be appointed under any maize pool scheme would handle about 1,500,000 bags of maize in a year. The charge for the administration of the pool by the agent is estimated at not more than fifty cents a bag, and might therefore cost the consumer £37,500 per annum. This would be equal to a production of about 187,000 bags of maize taking the basic value at Sh. 4 per bag. At present as far as the native is concerned, it costs him practically nothing to market.

33. In my view almost the entire cost of any scheme for a maize pool and the profits accruing therefrom will have to be borne by the natives, in one form or the other. The internal consumption of the maize is estimated at 845,000 bags per annum and estimating the increased price at Sh. 4 per bag in order to compensate for loss on export of all maize, the cost of any such scheme to the native would be about £170,000.

34. It is likely that an assured initial price and sale would enable natives in areas situated near the railway to increase production. Prices paid to-day to natives in certain areas are about Sh. 4 to Sh. 5 per bag, because this maize is sold for internal consumption and, therefore, fetches a good price. If, however, it is assumed that a steady demand and somewhat higher prices would provide a sufficient stimulus for increased native production, it would result in an increased exportable surplus. This would upset the calculation of the pool price and would defeat the whole object of the scheme. The internal price of maize would have to be fixed higher and higher in order to maintain the basic pool price.

35. On the other hand natives in areas not producing maize due to climatic or soil disadvantages will have to pay under the pool scheme a high internal price for maize or meal. The economic circumstances of natives would not permit them to buy this commodity for their daily food at an increased cost and would consequently result in a reduced internal consumption which in turn would affect both internal and pool prices.

36. The present practice in regard to the native maize crop is to sell the quantity available as soon as harvested to satisfy their need for paying taxes or to buy other necessities of life, and therefore a percentage of the natives have to buy maize back again during certain periods of the year. At present, they could buy such maize at a slightly higher price than what they have sold for, but, under the pool scheme, they would have to pay about double the price.

37. This would have a definite sentimental and adverse effect on the native mind and would be an inducement to change their habits of diet and revert to other native grains and food such as mtama, vimbi, choroko, beans, yams, sweet potatoes and muhogo, etc. The decreased internal consumption of maize as a result of these reasons would upset the calculations for the internal price with serious results on the pool price.

38. Natives in employment in towns would have definitely to pay a high internal price for their requirements of maize and meal. This would largely increase their costs of living, and, under existing depressed conditions of trade and employment, they could not expect to get proportionately higher wages.

39. The industries such as coffee, sisal, sugar, tea, etc. employ natives in large numbers and are paying them posho in addition to wages. The increased cost of posho will reduce the native wages, as industries will not be able to pay higher posho rates. To support this I quote the following resolution of the Tea Growers' Association which resolution was communicated to the members of the Maize Inquiry Committee by the Department of Agriculture in their Circular BA/12 of 24th June, 1933 :—

"It is the opinion of this Association that posho in effect forms part of the wage consideration and that the rate of wages and cost of food are therefore inseparable."

The result, therefore, would be that their savings would be considerably reduced. These native savings are to-day used in payment of taxes for themselves and their relatives in the reserves, and, if there is any surplus, in buying their other requirements of trade articles. The adverse effect on their buying capacity would result in reducing the trade turnover and would also affect the Customs revenue.

40. It is argued that if the maize industry is not supported large numbers of natives will be thrown out of employment. Although this is not likely to be the case, it would introduce the principle of a vicious circle, inasmuch as, that, in order to maintain employment from the maize industry they would grow more maize in the reserves and would thus meet the possible shortages, but such would not be the case if labour is thrown out of employment from other industries because they could not produce sisal, coffee or tea in the reserves.

41. There would also be another alternative to the industries which would be affected by the maize pool price. It would be quite easy for them to grow their own requirements of maize on

their own estates. The result of such supplies would be the increased maize production and the decreased internal demand which would upset the pool scheme and its basic price.

42. Complications are likely to arise on account of the production of maize by natives in the adjoining territories of Uganda and Tanganyika, in areas on the Kenya border, and without some sort of arrangement with adjoining territories any such scheme would not work satisfactorily.

43. In order to safeguard the pool against dumping by Uganda and Tanganyika, some restrictions on the present free flow of traffic between these territories and Kenya would be necessary which would in turn interfere with present customs arrangements. The adjoining territories may ask why they should continue to allow the free flow of Kenya agricultural products such as flour, sugar, tea, etc. when restrictions are placed on maize grown in their territories.

44. Even supposing that such difficulties were not raised by adjoining territories, the initial price, and high internal price to Kenya, is likely to result in increased production of maize in areas adjacent to the Kenya border. Such maize could be smuggled across the boundary and might be sold in Kenya and find its way into the pool. Thus, an increased area of production of native maize would increase the exportable surplus which in turn would throw out of gear the whole machinery of the pool and its basic price return to the growers.

45. Definite and reliable information is available that Uganda, at present, is producing maize which is sold to Kenya millers in large quantities. It is also well known that large quantities of maize from the Moshi and Arusha areas of Tanganyika are sold in Nairobi.

46. In the above circumstances, I do not think that any such scheme would be fair, just or workable. It will materially affect the natives who would be unable to bear the extra burden. It will confer no material benefit to the native as a producer of maize. In its actual effect it would mean subsidizing European maize growers at the expense of natives which could not be supported on any grounds of equity or justice. Further it would interfere with the present satisfactory and cheap marketing methods.

THE WHEAT INDUSTRY.

47. The industry of wheat in the Colony comes more or less in the same category as the maize industry and what I have said in my minority report on maize applies to a great extent to wheat.

48. While I fully appreciate and endorse the necessity of exploring all possible avenues of getting the fullest advantage of the agricultural land in the Colony by growing any and all economic produce which would reasonably justify the production even though the State or the Society has to nourish it in the stages of infancy, I cannot, however, endorse the policy of spoon-feeding any industry for ever at a cost which no community would be prepared to bear owing to the reason of artificially high prices which they may be called upon to pay for a particular commodity as against the current market prices.

PARA. 49. The idea of growing wheat was first mooted in the Colony
299 some twelve years ago. It has been given all possible support by the State, and the community at large have also willingly paid a much higher price for wheat flour than the actual price for which it could have been obtained in the ordinary world markets. I think it is admitted on all hands that the burden of this sacrifice has been borne by the majority of the Indian population of East Africa.

50. In other words the public has paid within the last twelve years a sum running into hundreds of thousands of pounds more for the wheat flour than its normal market price to enable the wheat industry to stand on its feet, but evidently even this colossal sacrifice does not satisfy the wheat growers and they ask for a total prohibition which will place the population of this Colony entirely at their mercy. It is true that the prices are regulated by the Wheat Advisory Board, but after all the Board while regulating price have to take into consideration not what is reasonable for the community to suffer to keep the industry alive but the price which will enable the local industry to continue to produce under varying circumstances. Now it has been proved after so many years that no regulating or restriction is enough to keep the industry alive and nothing short of total prohibition from the outside will enable the industry to continue.

PARA. 308 51. Not only has the public to bear the burden of the extraordinary high cost of the local production as against the normal market prices, but we are called upon to bear the proportionate losses which the grower has to suffer on exports to the markets of the world where the artificial support compulsorily given to the wheat growers locally is not available. Luckily the export of wheat at such suicidal prices has not been indulged in in recent years and the community has been comparatively saved from a much higher sacrifice which they would have been called upon to suffer if the policy of exporting wheat on terrific loss had been continued.

52. Any ordinary person without any economic knowledge would say without a moment's hesitation "If a crop cannot be grown economically in the Colony, well, don't grow it." I know of many plausible arguments which are advanced in favour of producing locally what is required for local use even though we have to pay a higher price for the same, but surely a patriotism of this nature must have some limits and if the arguments in favour of local wheat were to be followed to its logical conclusion regardless of all economical considerations and without any limits, there appears to be no reason why, for instance, the industry of rubber growing in the Colony should not be revived and the community should not be compelled to use locally produced rubber no matter what it cost. How long shall we continue to fight the world by artificial means of Customs barriers and prohibition?

53. At the present moment though the community pays about Sh. 12 per bag more on imported flour, people find it cheaper, comparing the quality, to buy imported wheat flour, which is purchased by all sections of the community, Europeans and Indians alike.

PARA.
299

54. I am definitely of opinion that the community can no longer afford to indulge in this costly and luxurious patriotism and we can no longer afford to be blind to hard facts especially when the earning capacity of the unfortunate community which consumes wheat flour has been reduced to a minimum and even those who are lucky enough to be saved from utter financial distress and destitution are in most of the cases living on their savings of the past years.

55. Another factor which has recently become nothing short of a scandal in the Colony is evidenced by the complete monopoly of milling operations, which has been gradually acquired by the wheat growers, who, not being content to inflict compulsorily a high uneconomic produce on the community have also monopolized the wheat trade in a fashion and steps are being taken by the same people that all the milling operation be monopolized by them. No mill in the Colony which is not owned by the wheat growers themselves can exist. It is common knowledge that all mills not owned by the wheat growers are working at a small percentage of their working capacity and some have been closed down entirely.

56. The explanation is not difficult to find. The obvious conclusion is that the wheat growers whose influence on the Wheat Advisory Board is by no means inconsiderable are to-day getting such prices for the wheat that they can afford to lose a considerable portion on milling in order to compete with and kill all other milling enterprises in the Colony. Millers who are not wheat

growers are naturally compelled to ask the consumer for the actual cost of milling whereas the wheat grower can afford practically to mill the wheat free of charge and pass on to the consumer because he still gets a much higher price for his wheat than he could possibly dream of getting in any other world market where he would export his produce.

57. I consider the whole question of the wheat pool, its operation and its effect on the milling industry, calls for a searching inquiry at the earliest moment and unless the agency which is at present in the hands of the wheat growers is placed in the hands of some independent organization who are neither growers of wheat nor millers, the crisis which is bound to eventuate is not far.

58. In my opinion it is absolutely necessary that an inquiry should be made as to the minutest details which would show the actual cost of producing wheat by economic methods and the wheat growers should be content with the minimum cost of production which should not leave them any marginal profits to compete with other millers in the Colony who have invested large sums of money on mills in good faith relying on the Government to see that they get a fair portion of the Colony's wheat to mill. Indeed the present chaotic condition calls for the pooling of milling activities by which each mill at present existent in the Colony should get its pro-rata quota of the locally produced wheat to mill.

PARA. 59. I suggest that every encouragement should be given to natives to grow wheat in areas suitable to the crop, for this would give the Colony a true and practical idea of the cost of growing wheat with the consequent saving to consumers.

THE SUGAR INDUSTRY.

PARAS. 60. This industry is on the same basis as wheat, butter, etc. 227 to In order to compensate for the loss on exports, local prices have 237 to be kept high. In the case of sugar, there is a marked disparity in the local sale prices and the export prices. The wholesale price of No. 1 sugar in Nairobi is £24 per ton and that of export is less than £7 per ton.

PARA. 61. In view of such a high local price of sugar and keeping 235 in view that the spending power of the community has considerably diminished, there is no surprise that there has been a very considerable contraction in the consumption of sugar locally.

62. Sugar is an essential part of the food and the use of it is as much necessary to natives as to Europeans and Indians and therefore every possible measure should be taken towards popularising the use of sugar amongst natives.

63. It may be of interest to note that among 11,000,000 population of Kenya, Uganda and Tanganyika Territory, only 15,000 tons of sugar is consumed, while 8,673,000 people in South Africa consumed more than 240,000 tons of sugar in 1931-32.

64. The best possible way, in my opinion, by which sugar could be popularized and its consumption considerably increased locally, is that this commodity should be sold as cheaply as possible. At present the price is maintained artificially high by concerted action of the growers, and the consumers have no voice in any such organization.

65. The quota system as suggested in the proposed law will increase the cost of production, as mills will not remain in a position to work economically, working expenses remaining the same, as skilled and unskilled labour for this section of the industry will have to be maintained throughout whether the factory is operating or not. Consequently the average production cost will be higher than it is at present, resulting in higher costs to the consumer.

66. Sufficient safeguards have been allowed to the interests of producers by way of Customs protection, high railway freight on imported sugar and also by prohibition of erection of further mills in these territories.

67. As in the case of wheat and maize I am against the suggestion of any sort of "pooling" system and in view of the fact that producers interests have been sufficiently safeguarded I suggest that marketing of sugar should be open. It will work on the basis of the survival of the fittest. Thus the price will be reduced to within easy reach of the purchasing capacity of the natives. It will greatly stimulate sales and consumption of sugar locally—decreasing the surplus stock for export to a very low figure and things will adjust themselves.

MARKETING OF NATIVE PRODUCE.

68. After the close and careful study of the papers submitted PARAS. and the discussion that followed, I have come to the definite conclusion that no case whatever has been made out for the change 441 to 461 in the present system of the marketing of native produce which has proved and is proving quite successful and satisfactory.

69. In my view what is required at present is energetic efforts in the direction of increased native production in the reserves, instructions to natives to improve their system of agriculture and consistent and continued encouragement to grow economic crops. This has been recommended by the Committee in paragraphs 402 to 405.

70. It is stated that legislation is necessary on the following grounds :—

- (a) Bartering should be abolished and all native produce must be bought for cash only.
- (b) The price paid to natives should be a fair market price, taking into consideration world prices.
- (c) The cheating in weight in the obscurity of small shops should be obviated.
- (d) Improvement in quality of produce.
- (d) Saving of transport costs.

71. With regard to the system of barter, this does not exist in Kenya. If such a system was resorted to in any out-of-the-way district, in my opinion it must be serving a very useful purpose. However, there could be no sympathy for the system of barter and there is no need for legislation to deal with such a system. If necessary, it could be easily dealt with by administrative action.

72. With regard to paying a fair price to natives, I do not think that anybody would be prepared to dispute the contention that not only a fair price but more than fair price is paid to natives by Indian shopkeepers. Definite instances could be quoted by quoting prices paid in various districts by shopkeepers to the natives which in comparison to world prices are more than fair. Sometimes a charge is levelled that fair prices for produce are paid by traders because profits are covered by sales of imported goods to natives by the same shopkeeper. This charge has no substance, but it appears that services for buying native produce are rendered at the present moment at a comparative cheap price. That this class of trader in East Africa has amassed no wealth is evident in every small centre where they are carrying on this class of trade and the fact that they are still struggling to earn a living should be a sufficient proof that they are rendering an expert service at very low cost. Any disturbance of these conditions would result in increased overhead charges and in a reduced price return to the natives.

73. There are no two opinions that in Kenya to-day although there is no marketing legislation, prices paid to natives by Indian traders are more than fair. This has been conclusively proved to the administrative officers in various districts and at one time the Honourable the Director of Agriculture after making a very careful inquiry and investigation on a complaint that natives were not getting a fair price, reported to the Government that there was no truth in such a complaint and that they, the natives, did always obtain a fair price for their produce.

74. It is said that prices paid to natives are often more than market conditions justify, and the natural implication is that it is

made up in some other way. There are many reasons why prices in open competition are higher than market conditions justify. Some exporters might have sold at a better price than the ruling one and could afford to pay a slightly higher rate than the market conditions of the day would justify. It would not, therefore, be correct to assume that better prices thus paid are recovered through sale of imported goods. This reason, therefore, as a justification for marketing legislation falls to the ground.

75. With regard to cheating in weights in the obscurity of small shops which is advanced as one of the arguments for the legislation. I am surprised that if there was any substance in this charge the Government have not dealt with it in another way. I am not aware of conditions in Tanganyika, but in Kenya there have been very few instances, if any, of cheating in weights in buying produce. There is already a Weights and Measures Ordinance in force in Kenya by which the Government could easily deal with the situation.

76. Another argument advanced in favour of marketing legislation is that it will obtain improvement in quality. Without any such legislation in Kenya the quality of produce such as simsim, groundnuts, and wattle bark, etc. has very much improved recently. To this end the Indian traders have given their fullest contribution by means of co-operation. As a result of rules recently promulgated in Kisumu and Machakos under the existing law the quality of various articles of native produce has much improved.

77. In this respect I quote the following from a Memorandum presented by the Department of Agriculture before the Committee (Memo. No. 126, page 8.)

"Powers provided under existing legislation are being applied in respect of wattle bark, simsim, maize, groundnuts, cotton and cashew nuts. As examples it may be mentioned that the sale of wattle bark during wet months when drying is difficult, is prohibited. The offering for sale or purchase of groundnuts prior to a certain date is also prohibited in the interests of growers. Sole buying licenses are issued for cotton and cashew nuts, and by this means it is ensured that reliable business firms handle a bulk produce and reduce overhead costs. To initiate the work of improving bees-wax and increasing exports, special arrangements have been made with a private firm under which the agricultural officer purchases the wax. Maize, simsim, and groundnuts in certain areas and wattle bark throughout the Central Province may not be sold outside the region of production without inspection for quality . . ."

78. With regard to quality for export the grading rules at the port of shipment are effectively controlling the goods for export. The rules in force at present for potatoes (a native crop) and maize have successfully established the exports in grade qualities and the same could be done in other directions without any marketing legislation.

79. It is contended that buying in markets would save transport costs. This view could not be substantiated by facts. If natives have to take produce to distant market centres for sale, they will either get such produce transported by lorries, as they now do in Uganda, or carry the loads on their heads. If the latter be the case and is insisted upon, the produce is not likely to be marketed at all if it happens to be foodstuff such as groundnuts or simsim and it is more likely to be consumed at home. In any case there is no doubt that the cost of transport to natives or to traders would not be less under the new system than it is to-day under the old system, and in certain instances it is likely to be more because the transports to and from the markets would involve double handling.

80. If we take the instance of simsim in Kenya, those who have studied the situation are of the opinion that the world price of simsim or other oil seeds is not likely to improve. The new process of purifying whale and fish oils has made them much cheaper and in many instances they are taking the place of oils from seeds. The quality of simsim in Kenya could not be much further improved without the aid of machinery, and the cost of improving quality by machine cleaning would be more than the higher price such improvement in quality would obtain in the market. According to the export of simsim from Kenya from total exports of 3,098 tons from January to the end of August, 1933, 1,909 tons were shipped to Italian Somaliland. This means that 66 per cent of our exports of simsim is taken by our next door neighbour to whom the quality at present produced is acceptable and the price no doubt is more favourable than obtainable if shipped to Europe, due to the shorter distance and lower transport costs. The moment the higher price is demanded owing to improvement in quality this market may be lost to another, or in the alternative even with the improvement in quality natives would not get a better price. In addition to what has been stated a very large quantity of simsim is consumed locally in the country in the form of simsim oil and for this no elaborate marketing arrangements or improvement in quality are necessary. In my view if simsim or such other produce is subjected to organized marketing on the lines of Tanganyika and Uganda it will have an adverse effect on production and exports.

81. The issue of an exclusive licence, which is an essential part of the new proposed legislation—is restricted to production or cultivation of new commodities, yet it could be and possibly would be applied to existing production and commodities. The effect of the exclusive licence would be simply to drive out every Indian from trading in a commodity for which an exclusive licence has been granted. This would be so even if an exclusive licence is granted to an Indian.

82. In Uganda such legislation has been in force and they have experienced the working of this when last year an exclusive licence was granted to a European for the purchase of ground-nuts. As a result of the adverse effects of the issue of this exclusive licence, the Eastern Province Chamber of Commerce, Jinja, which is composed of European and Indian firms made representations to the Director of Agriculture there with a request that no exclusive licence should be issued in future. The Chamber pointed out that the price fixed for buying groundnuts from natives was fixed at 4½ cents per lb. but for reselling some to the natives or to traders for their use the price charged by the licensee was 6½ cents per lb. This gave the holder of the exclusive licence a profit of 45 per cent. Such excessive profits and consequent low price return to natives could be a very strong reason for restricted production of such commodities in future.

83. This could be argued at length by giving various details that the holder of an exclusive licence will gain at every point, and will take no risk and it is not fair that others should be deprived of the opportunity of doing business in a certain line, in order that a holder of an exclusive licence should make a huge profit at the expense of the traders and particularly at the cost of natives to safeguard whose interest this legislation is being promulgated.

84. However, if in certain exceptional cases an exclusive licence is considered necessary, the Government could bring in separate legislation for the commodity for which it is desired to be dealt with in an exclusive manner, thus each such industry will be dealt with on its own merits.

85. With regard to the suggestion that—

- (a) the purchaser of the produce must be a stall-holder in the market;
- (b) he cannot retail goods there; and
- (c) he must confine himself to the purchase of the produce or varieties of produce for which the market has been erected,

I most emphatically state that powers for establishing markets in such a way will be wholly detrimental to the Indian interests. There are trading centres already gazetted and Indian merchants have taken leases and in various centres put up permanent buildings and invested large capital under the implied guarantee that both retail and produce trade will be allowed to be carried on in those trading centres.

86. This principle of separate trading places for buying and selling is therefore uncalled for. It is neither necessary in the interests of natives themselves, as they would prefer to buy their requirements at places where they have disposed of their products and obtained good prices. However, there is nothing to stop the native buying his requirements at any other shops if he so chooses and if it is found absolutely necessary, separate areas for buying and selling could be kept in the same trading centre.

87. I agree that the native should get cash for his produce and in fact he does so to-day. The arrangement to allow buying of produce at shops as at present is necessary so that natives should get better prices for their produce in comparison to what they could get if markets were far from trading centres, the shopkeeper would be able to buy produce without incurring extra overhead and transport costs and if the market be far from a trading centre they will have to engage extra staff to buy and look after produce which would ultimately come out of the price payable to the natives. It would therefore be in the interest of the natives that produce markets should be in the trading centres.

88. In my view the measure for controlling marketing of produce is wholly uncalled for in the circumstances prevailing in Kenya where we have all the benefits supposed to be derived by its introduction. It has yet to be proved whether such a measure has been beneficial to the natives in the neighbouring territories and whether it is likely to be of any special benefit to the native population of Kenya. Both in Tanganyika and Uganda various systems of marketing are still being tried and the whole scheme is yet in an experimental stage.

89. If without making out a case or proving it by facts, such legislation is introduced in Kenya, there would be a great deal of justification for the view widely held that the marketing legislation is being introduced with the sole object of depriving a large number of Indian traders of a living and as an instrument to drive many of them away from the country they have made their home. It should be remembered that these small enterprising traders have rendered in the early days of East Africa meritorious services in spreading civilizing influences among the natives and these services have been appreciated by high Government authorities from time

to time. To push these traders away by legislative interference from the position acquired by them after a great deal of personal suffering and sacrifices in men and money could not be defended on any grounds of justice, equity or fair play. They are still a useful link in the economic chain of the country and when it is feared that others in their place would be able to acquire the rights of monopoly and exclusive buying the measure becomes indefensible.

90. I have shown by arguments that the present system of unrestricted trading and free competition for the marketing of native produce has all the advantages in Kenya which are claimed by the organized and restrictive marketing system in force in Tanganyika and Uganda, namely, buying for cash, fair price to the natives, improvement in quality and efficient and cheap service, and when rules at present in force in Kenya could produce the same result I fail to see any reason or necessity for the proposed legislation.

Nairobi,

15th October, 1934.

D. D. PURI.

Postscript.

91. *General.*—I regret that it has not been possible for me to sign the main Report as drawn up for the reasons stated in paragraph 1 hereof.

92. I am in substantial agreement with the conclusions on the following heads in the main Report :—

Appointment of competent Statistician to continue bank statistics and to compile other economic statistics of the Colony.

Development in native areas and appointment of additional agricultural officers.

Trade representative in India.

Monetary policy—No change in sterling parity.

Standing Shipping Committee.

Reduction in Annual Railway Renewal Fund.

Timber industry.

Fruit growing.

Water conservation.

Tsetse fly.

Consolidation and conversion of Colonial Loans.

I oppose certain conclusions and recommendations in addition to those discussed in this minority report. I am dealing with these briefly in the following paragraph.

93. With regard to the appointment of a Standing Board on Economic Development, in my opinion this will be to create yet another Board—the proposed functions of which are more or less at present carried out by Committees and Boards already functioning and there is nothing new which does not already receive the attention of Government, at present, in one way or the other.

94. But if it is decided to set up another Board as recommended—then keeping in view the vast economic interests of the Indian community—it is urged that the Indian community should be given adequate representation on such a Board .

95. For certain industries which supply both the local and the export market the principle of controlled marketing has been recommended under which the local price is regulated in order to support the export. I am entirely opposed to the adoption of such a principle compulsorily and permanently—and I have discussed this in detail in its application to maize and wheat, proving the disadvantages of the adoption of such a principle, which saves the interests of one section of the community at the cost and expense of the other section of the community.

96. I have had the opportunity of looking at the minority report by my colleagues. I agree with their finding on the question of balance of trade, which I believe and feel is a better picture of the real state of affairs than indicated in the main Report.

97. I regret that I do not agree with the major portion of the conclusions in the minority report owing to the fundamental difference between their outlook and mine, as I consider that the cause of all this state of affairs is due to the reservation of the Highlands exclusively for development by the Europeans and thus bringing about the present chaotic state of affairs. I also disagree with their suggestion that the devaluation of our currency is the solution of our difficulties. I am definitely opposed to their suggestion on this issue.

98. In conclusion while I regret that it has not been possible for me to sign any report, I take this opportunity of associating myself with the high tribute paid in paragraph 9 of the main Report to Mr. Liversage, the Secretary of the Committee.

99. A deep sense of appreciation is due to our worthy Chairman, Mr. G. R. Sandford, O.B.E., who apart from conducting this long and arduous inquiry with considerable tact and ability has shown every consideration towards me and has rendered me every possible assistance, and I have therefore great pleasure in associating myself with my colleagues on this subject in the postscript of the main Report.

D. D. PURI.

APPENDIX I.

LIST OF PERSONS AND BODIES FROM WHOM MEMORANDA WERE RECEIVED.

Administration Department—

Barton, C. J. J. T.

District Commissioner, Central Kavirondo.

”	”	North Kavirondo.
”	”	South Kavirondo.
”	”	Kericho.
”	”	Kitui.
”	”	Lamu.
”	”	Machakos.
”	”	Mombasa.
”	”	South Nyeri.
”	”	Voi.

Officer-in-Charge, Northern Frontier District.

”	”	Masai District.
”	”	Turkana District.

Provincial Commissioner, Nyanza

”	”	Coast.
”	”	Rift Valley.
”	”	Central Province.

African Mercantile Co., Ltd.

Agricultural Department—

Agricultural Officer, Bukura.

”	”	Embu.
”	”	Fort Hall.
”	”	Kiambu.
”	”	Kitui.

Animal Husbandry Officer.

Chief Veterinary Research Officer.

Deputy Director (Animal Industry).

Deputy Director (Plant Industry).

Provincial Agricultural Officer, Kisumu.

Provincial Agricultural Officer, Nyeri.

Veterinary Officer, Eldoret.

Veterinary Officer, Sangalo.

Veterinary Entomologist.

Archer, C. K.

Ashford, J.

Bailey, W. J.

Beaton, Duncan.

Chambers of Commerce—**Association of Chambers of Commerce of East Africa.**

Eldoret Chamber.

Federation of Indian Chambers of Eastern Africa.

Nairobi Chamber.

Mombasa Chamber.

Coffee Board of Kenya.

Constantine, A. K.

Cottar, C.

Cooper & Nephews, Ltd.

District and Farmers' Associations—

Fort Ternan Farmers'

Gilgil District.

Limuru District.

Mount Kenya.

Naivasha Farmers'

Nanyuki Farmers'

North Sotik Planters'

Rongai Valley

Subukia Farmers'

Songhor Farmers'

Thika District.

Thomson's Falls District.

Trans-Nzoia Farmers'

Ulu Settlers'

Dykes, A.

East African Enterprises, Ltd.

East African Estates, Ltd.

East African Indian National Congress.

Education Department—

Inspector of Schools, Maragoli.

Walford, A.

Elected Members' Organization.

Forest Department.

Grahame Bell, H.

Harvey, Conway.

Kenya Association, 1932.

Kenya and Uganda Railways and Harbours, Chief Accountant.

Kenya Co-operative Creamery, Ltd.

Kenya Farmers' Association.

Kenya Sisal Growers' Association.

Kenya Tea Growers' Association.

King, E.

Land and Agricultural Bank of Kenya.

Law Society of Kenya.

- Medical Department—**
 Medical Officer, Native Hospital, Nairobi.
 Medical Officer, Digo.
Model Bacon Factory, Elburgon.
Motor Tours, Ltd.
Mua Farms, Ltd.
Naivasha Lands, Ltd.
Native Registration Department.
Nicholson, J. Landell.
Oza, U. K.
Public Works Department—
 Hydrographic Surveyor.
Scott, J.
Smith Mackenzie & Co., Ltd.
South Kinankop Dairy Co., Ltd.
Stoneham, Lt. Col. H. F.
Strange, T.
Treasury.
Victoria Nyanza Sugar Co., Ltd.
Walter, A.
Warden of Mines.
-

APPENDIX II.

NOTES ON THE FINANCIAL WORKING OF THE COLONY DURING THE PAST SIX YEARS.

1928.

When the draft Estimates for 1928 were prepared it was felt that the strength of the Colony's financial position justified a general expansion of services. As compared with the estimates for 1927 they showed an increase of £180,259 in recurrent and £117,890 in non-recurrent expenditure. The financial results of the year may be expressed as follows :—

	Sanctioned Estimates	Actual	Difference
Revenue	£ 2,859,404	£ 3,020,694	+ 161,290
Expenditure	2,840,197	2,834,647	- 5,550
	£ 19,207	186,047	+ 166,840

1929

1929 budget.

2. The 1929 budget as presented to Legislative Council showed :—

Estimated Revenue	£ 3,269,366
Estimated Expenditure—	£
Recurrent	2,989,403
Non-recurrent	157,870
	3,147,273
Estimated Surplus	£122,093

3. The increase in revenue estimates as compared with the previous year was mainly due to reimbursements from the Transport Administration on account of loan services, but normal sources of tax revenue were showing a progressively larger yield and additional receipts of about £130,000 were anticipated from them. The draft budget provided for a consolidation of existing services rather than for the development of new or enlarged services.

4. The amendments made as a result of the Select Committee's Report were substantial. They included increased provision for recurrent services amounting to over £70,000 in 1929. The principal developments were additional provision of £20,000 for the maintenance and improvement of roads and bridges and of about £20,000 for further medical services primarily directed towards

anti-malaria measures. This latter recommendation was accompanied by proposals for the erection of four hospitals and housing for the staff from loan funds and for equipment and certain temporary buildings from revenue.

The estimates as passed showed :—

	£
Estimated Revenue	3,265,174
Estimated Expenditure—	<u>£</u>
Recurrent	3,060,441
Non-recurrent	<u>127,724</u>
	<u>3,188,165</u>
Estimated Surplus	<u>£77,009</u>

5. In addition to considering the estimates of revenue and expenditure for 1929, the Select Committee also dealt with the Colony's surplus balances. A Committee had been appointed in July, 1928, to advise on this question with terms of reference as follows :—

"To advise on the following :—

- (a) The minimum amount of the accumulated surplus which should be held available in liquid form.
- (b) The amount which should be held available for use as loan money in Kenya.
- (c) The amount of available surpluses which should be placed annually to these two heads.
- (d) The amount which should be spent on extraordinary public works.
- (e) Matters arising therefrom."

6. At the end of 1927 the Colony had a surplus of £693,260. The Committee's recommendations were "that after meeting the requirements of :—

Liquid working balance	£50,000
Unallocated stores	£110,000
Revenue—10 per cent of the highest actual net revenue obtained in any previous year;	

the remainder should be used to assist the development of the Colony through a Land Bank and by means of other works for the development of the Colony."

7. The figure allocated to the reserve on the above basis was £230,000. This left a "remainder" of £303,260. The Committee recommended that a sum of £200,000 from surplus balances available at the end of 1927 be set aside for Land Bank purposes and be invested until so required. This left approximately £103,000

available for works and the Committee recommended that the following programme of works be undertaken :—

	£
Nairobi Telephone Exchange ..	20,000
Other Postal and Telegraph Works ..	2,780
Road Plant for District Councils ..	10,000
Buildings at Lokitaung and Wajir ..	1,500
Roads and Bridges	35,000
Kitale Water Supply	13,000
Nyeri Water Supply	4,000
Anti-malarial Measures	10,000
Other Water Supplies, etc.	6,500
TOTAL ..	£102,780

Of this sum it was anticipated that £74,562 would be spent in 1929.

8. The estimates for 1929 made no provision for "revotes" of expenditure approved in 1928 on non-recurrent works which had not been completed by the end of the year. Provision for these revotes was made in First Supplementary Estimates, 1929, the total amount involved, exclusive of the sum of £74,562 referred to above being £144,133.

9. In addition to this, the Committee framed recommendations for the expenditure of £60,000 from the surplus balances for 1928 if available. Part of this sum was made available in First Supplementary Estimates, 1929, as follows :—

	Provision contemplated	Provision made
	£	£
Roads and Bridges	39,000	8,500
Water Boring Plant	7,000	7,000
Furniture for New Buildings	8,000	2,000
Minor Works	6,000	6,000
TOTAL .. £	60,000	23,500

10. The full financial programme for 1929 apart from unforeseen requirements may therefore be expressed as follows :—

Estimated Revenue	3,265,174
Estimated Expenditure—	£
Recurrent	3,060,441
Non-recurrent :	£
1929 Estimates	127,724
1927 Surplus Balances ..	74,562
Other Revotes ..	144,133
1928 Surplus Balances ..	23,500
	369,919
	3,430,360
Estimated Deficit	£165,186

Amendments.

15. The Select Committee examined the draft estimates in great detail with a view to reducing the expenditure but their efforts in this direction were to some extent offset by additional provision of £15,000 required for famine relief measures in the Kikuyu Province and by the insertion of provision of £5,000 for a sea fisheries investigation and £4,000 for the Board of Agriculture. Both sides of the budget were reduced by £25,000 on account of Transport Administration debt charges. The estimates as finally approved were as follows :—

	£
Estimated Revenue	3,461,612
Estimated Expenditure—	£
Recurrent	3,281,289
Non-recurrent chargeable to Revenue ..	168,209
Non-recurrent chargeable to Surplus ..	
Balances	106,037
	<hr/>
Estimated Deficit	£93,923
	<hr/>

Allocation of surplus balances.

16. The Select Committee also reviewed the recommendations made a year previously on the subject of the Colony's surplus balances, recommending that the figure to be reserved for working balance purposes should be increased to £100,000 and agreeing by a majority that the Land Bank should be financed from loan funds against which authority had been obtained to allocate £240,000 for Land Bank purposes.

Shortfall in revenue and unforeseen expenditure.

17. The 1930 budget, working on the figure of £707,976 for the surplus balances as at the end of 1929, would have had the effect of reducing these balances to £614,053 by the end of 1930. Actually the surplus balances at the end of 1930 totalled £510,702 only or £103,351 less. This was partly due to a serious shortfall in revenue, amounting to no less than £220,012, and partly to certain considerable items of supplementary expenditure for which provision was made during the year, the most important items being :—

	£
Emergency Repairs to Roads and Bridges due to Flood Damage	31,285
Refund of four-fifths of Grading and Conditioning Fees on Maize	14,999
Colonial Development Fund Expenditure (Reimbursed) ..	16,087
Rents of Offices and Houses and House Allowances ..	12,324
Miscellaneous Services Extraordinary	11,618
Military Buildings and Equipment	10,365
Grant to Nairobi for Road Construction	5,600
Expenditure in connexion with Locusts	4,931
	<hr/>
Total of the above Items	£107,209
	<hr/>

In spite of the additional provision made during the year expenditure fell short of the estimate of £3,555,535 by £116,661.

18. Actual revenue and expenditure for the year compared with 1930 results.
the estimates as follows :—

	Sanctioned Estimates	Actual	Difference
	£	£	£
Revenue	3,461,612	3,241,600	—220,012
Recurrent Expenditure ..	3,281,289	3,114,912	—166,377
Non-recurrent Expenditure ..	274,246	323,962	+49,716
Total Expenditure ..	3,555,535	3,438,874	+116,661
Deficit	£93,923	197,274	+103,351

1931

19. The budget for 1931 was framed before the full extent of 1931 budget. the shortfall in revenue for 1930 had been realized. It was, however, apparent that the surplus balances at the end of 1930 would be considerably smaller than had been anticipated and the fall in market values of produce had materially affected the Colony's financial outlook.

20. The allocation of surplus balances approved when the estimates for 1930 were passed had been :—

	£
Working Balance Reserve	100,000
Unallocated Stores	110,000
General Reserve—10 per cent of the highest net Revenue obtained in any previous year, say	250,000
	<hr/>
	£460,000

the balance, then estimated at £118,849 being left unallocated. When the draft estimates for 1931 were under consideration; however, the allocations against surplus balances, apart from the allocation to general reserve, totalled £379,000 as follows :—

	£
Working Balance Reserve	100,000
Unallocated Stores	110,000
Civil Servants' Housing Scheme	44,000
Advances to Local Authorities	25,000
Agricultural Advances	100,000
	<hr/>
	379,000
Leaving a remainder of	182,599
	<hr/>
Out of the Surplus Balances as then estimated of	£561,599

21. Apart, therefore, from the fact that the surplus balances were then over-estimated (the actual balances at the end of 1930 amounting to £510,702 only) the balance available in liquid form was known to be less than 10 per cent of the highest net revenue

obtained in any previous year and therefore too low. The budget for 1931 was therefore framed on lines calculated to build up the Colony's balances to a more substantial figure and showed an estimated surplus of £51,978. The estimates of recurrent expenditure for 1931 exceeded those for 1930 by £73,155 of which £54,310 was due to Public Debt and Pensions charges, and provision made for non-recurrent expenditure showed a decrease of £164,645 as compared with the previous year. The draft estimates, in short, represented a determined attempt to bring under control the normal tendency towards increase of recurrent expenditure and endeavoured to secure a substantial addition to the Colony's surplus balances.

amendments.

22. With a few minor amendments, the Select Committee agreed to the revenue estimates as drafted "on the understanding that Government will take all necessary steps to ensure the maintenance and extension of agriculture on which these estimates are primarily based." On the expenditure side amendments were proposed resulting in a decrease of £10,213 in recurrent and £10,900 in non-recurrent expenditure. The estimates for 1931 as finally passed by the Legislative Council showed :—

	£
Estimated Revenue	3,515,983
Estimated Expenditure—	
Recurrent	3,344,231
Non-recurrent	98,701
	<hr/> 3,442,932
Estimated Surplus	<hr/> £73,051

**Revenue
shortfall and
economies
authorized.**

23. Early in 1931 it became apparent that a serious shortfall in revenue was likely to arise. Immediate steps were therefore taken to curtail expenditure and specific reductions were authorized to the extent of over £150,000, a figure which was progressively increased as the year advanced. Economies authorized amounted to £195,000 by the end of July at which time it was thought that the revenue shortfall would be about £320,000.

1931 results.

24. Actual revenue and expenditure for the year compared as follows with estimates :—

	Sanctioned Estimates	Actual	Difference
Revenue	3,515,983	3,066,930	—449,053
Recurrent Expenditure	3,344,231	3,076,884	—267,347
Non-recurrent Expenditure	98,701	139,205	+40,504
Total Expenditure	3,442,932	3,216,089	—226,843
Deficit	+73,051	—149,159	—222,210

25. The excess shown under non-recurrent expenditure was due to the extent of £30,923 to expenditure carried out from grants from the Colonial Development Fund which was fully offset by additional revenue. Apart from this, a sum of £18,776 was spent on locust destruction and allowance had to be made to the extent of £11,874 to cover depreciation on investments held on behalf of the Post Office Savings Bank.

1932

26. The 1932 budget was framed to show an estimated surplus 1932 budget. of £62,243. Economies in expenditure authorized in 1931 were consolidated and increased, the net decrease in estimated net expenditure as compared with 1931 amounting to £237,435, in spite of increased debt, pension and other irreducible charges of over £80,000. But it was on the revenue side that the budget presented the greatest difficulty owing to the rapid deterioration that was taking place in the revenue yields from Customs and other sources. The draft estimates proposed a decrease in estimated gross revenue of approximately £200,000 but the estimates were considerably revised before the budget was finally passed. On the expenditure side the net effect of amendments made on the Select Committee's recommendation was a reduction of approximately £10,000. The approved estimates for the year showed :—

	£
Estimated Revenue	3,295,414
Estimated Expenditure—	
Recurrent	£ 3,213,908
Non-recurrent	32,569
	<hr/> 3,246,477
Estimated Surplus	£48,937

27. The estimates of revenue contemplated new excise duties New taxes. on sugar, tea and tobacco, yielding £15,000 in all, a levy on official salaries estimated to bring in £50,000, an entertainment tax (£6,000), the licensing of banks and insurance companies, motor drivers' licences and road transport licences, the last four items being calculated to yield £8,400. Customs revenue estimates were reduced from £953,239 in 1931 to £761,179 in 1932 and comprehensive reductions were made in the estimates from most other sources of revenue except reimbursements which reflected the additional debt charges becoming payable by the Transport Administration in respect of interest of the 1930 loan and sinking fund contributions for the 1927 and 1928 loans.

28. The budget for 1932 was prepared under the cloud of a Locusta. widespread locust infestation. A token vote of £5,000 was included on the expenditure side for locust destruction on the understanding

that Government would add to this amount whatever sum might be necessary for a continuation of the anti-locust policy should the need arise.

Further revenue shortfall.

29. Early in 1932 it became clear that once again a serious shortfall in revenue would occur. During the first quarter of the year collections of Customs revenue were £59,000 less than in the corresponding period of 1931 in spite of certain additional duties, estimated to yield about £26,000 per annum, imposed in June and December, 1931. And this decrease possessed added significance because when the accounts for the year 1931 were closed, actual Customs revenue was shown to be over £40,000 less than the revised estimates for 1931 upon which the estimate for 1932 had to some extent been based. The "Watch Dog" Committee, which had been appointed early in the year, advised as a measure of precaution that sanctioned expenditure should be subjected to economies calculated to save not less than £100,000 in 1932 and at a meeting held early in May indicated the probability of a shortfall in 1932 revenue of about £250,000.

Revised estimates 1932.

30. The position for 1932 as then seen was that the revised estimates of revenue stood at £3,045,414, while authorized economies totalling £103,754 reduced the expendable provision sanctioned in the estimates for the year to £3,142,723; but special warrants on unforeseen items of expenditure totalling £47,373 for the first four months of the year increased the revised estimate of expenditure to £3,190,096 These revised estimates showed a deficit on the year of £144,682 as against a budgeted surplus of £48,937

31. Throughout the year the revenue position was kept under detailed review, and throughout the year the revised estimates of revenue endorsed by the "Watch Dog" Committee showed progressive decreases. On the expenditure side, therefore, every effort was made to secure further economies in public expenditure. When the draft estimates for 1933 were presented to the Legislative Council, the revised position for 1932 was expressed as follows :—

Revised estimates of revenue	...	...	£2,952,324
Revised estimates of expenditure	...	...	£3,172,324
Estimated deficit for 1932	...	...	£220,000

Actual revenue for 1932 exceeded this revised estimate by £57,890 including £29,925 from appreciation in the value of securities held on behalf of the Post Office Savings Bank, and actual expenditure fell short of this revised estimate by £52,601. The actual deficit was therefore £110,491 less than the revised estimate

and the year closed with a deficit of £109,509. As compared with the sanctioned estimates for the year, actual revenue and expenditure were as follows :—

1932 results.

	Sanctioned Estimates	Actual	Difference
	£	£	£
Revenue	3,295,414	3,010,214	—285,200
Recurrent Expenditure ..	3,213,908	3,025,248	—188,660
Non-recurrent Expenditure ..	32,569	94,475	+61,906
Total Expenditure	3,246,477	3,119,723	—126,754
Surplus or Deficit .. . £	+48,937	—109,509	—158,446

32. The principal items responsible for the excess shown under non-recurrent expenditure were :—

	£
Refund of Customs Duty on Wheat Imported under Licence	25,644
Locust Campaign (in addition to £5,000 provided in Estimates)	21,435
Famine Relief	6,493
Geological and Mining Investigations	3,464
Colonial Development Fund Expenditure (covered by Reimbursement)	3,284
Kenya Land Commission Expenditure	2,766

Total of the above Items £63,086

33. The shortfall in revenue was principally due to shortfalls Revenue of £163,917 in Customs revenue and £70,899 in native hut and charges. poll tax. An additional non-native poll tax at a flat rate of Sh. 30 per tax-payer was imposed in July, 1932, and is estimated to have yielded £25,250. At the same session the petrol tax was increased from 15 cents to 35 cents per gallon; and with effect from the 1st of August, 1932, the rate of levy on official salaries was increased. These last two measures may, perhaps, be considered as having increased the 1932 revenue by about £16,750, a total increase, with the additional non-native poll tax, of about £42,000.

34. During March and April the Financial Commissioner, Lord Moyne's Report. Moyne, visited Kenya. He presented a report in May dealing with certain aspects of the general financial and economic situation of the Colony. The terms of reference entrusted to him included authority to review the general budgetary position of the Colony. His views on this matter are contained in paragraphs 92 and 119 of his report. His general conclusion was that there was no present indication that the financial difficulties of Kenya would solve themselves and that budget stability should be ensured by broadening the bases of tax revenue.

**Expenditure
Advisory
Committee.**

35. In July, 1932, the Expenditure Advisory Committee was appointed to examine the organization of every Government Department and to make recommendations as to the basis of Government expenditure for the next four years. Loan, pensions, Northern Brigade, and certain native services were excluded from the Committee's purview, but with these exceptions the terms of reference covered the whole field of Government expenditure and the Committee was also required to report whether the total expenditure necessary to keep a reasonably efficient Government machine in being could be met from the anticipated revenue on the existing basis of taxation. In arriving at its conclusions the Committee was required to have regard to—

- (i) the need for building up the surplus balances of the Colony within the next four years to a figure compatible with safety and the resources available;
- (ii) the Colony's commitments in respect of the excluded services;
- (iii) the essential need for productive development.

36. The Committee reported on the 19th of February, 1933. It examined the financial position of the Colony in detail and framed comprehensive recommendations regarding the organization of Government departments, terms of service, and departmental expenditure. The Committee, in concluding paragraphs of the report, observed that :—

"the present unsatisfactory position is not due solely to the economic depression of the world nor is it due solely to extravagance in the past, but to both causes . . . The extension of social services outstripped the development of the Colony's potential resources, and to-day the progressively increasing cost of these services is disproportionate to the Colony's revenue."

1933

1933 budget.

37. The budget for 1933 was introduced into Legislative Council in December, 1932 in a provisional form the final estimates not being passed until May, 1933, after the report of the Expenditure Advisory Committee had been studied. The Select Committee considered the draft estimates for 1933 in the light of the recommendations made by the Expenditure Advisory Committee, and the estimates as passed showed :—

	£
Estimated Revenue	3,046,115
Estimated Expenditure—	<u>£</u>
Recurrent	3,184,004
Non-recurrent	38,206
	3,222,210
Estimated Deficit	£176,095

38. It will be noticed that the total revenue estimated for 1933 fell short by approximately £250,000 of the sanctioned estimate for 1932. The decrease allowed for was actually about £120,000 greater than this because the estimates for 1933 made provision for the whole of the Northern Brigade of the King's African Rifles (against a reimbursement from Uganda estimated at £52,242) and for the inclusion of the Tanganyika Postal Services in the amalgamated Postal Services (against a reimbursement from Tanganyika estimated at £61,206). In addition to these factors, the 1933 estimates anticipated increased revenue of £7,351 in respect of expenditure to be undertaken from the Colonial Development Fund.

39. Experience showed that the sanctioned revenue estimates for 1933 were framed on sound lines. The preparation of revenue estimates had been a matter of great difficulty during recent years and serious shortfalls had occurred since 1929. The revenue actually received in 1933 exceeded the estimate. Of the excess of £75,381, an amount in the neighbourhood of £40,000 may be attributed to new taxation measures introduced during the course of the year and not taken into account when the estimates for the year were prepared.

On the expenditure side there was a decrease of £24,267 in the 1933 results total as compared with 1932 provision. This decrease was arrived at after making the provision for the Northern Brigade King's African Rifles, Tanganyika Postal Services and Colonial Development Fund expenditure referred to above, and after making further provision of £20,597 for pensions and gratuities.

40. The actual revenue and expenditure for 1933 compared with the estimates as follows:—

	Sanctioned Estimates	Actual	Difference
			£
Revenue	3,046,115	3,121,496	+75,381
Recurrent Expenditure ..	3,184,004	3,094,833	-89,171
Non-recurrent Expenditure ..	38,206	73,202	+34,996
Total Expenditure	3,222,210	3,168,035	-54,175
Deficit	£176,095	46,539	-129,556

The principal item causing the excess of non-recurrent expenditure over the estimate was the refund of customs duty on imported wheat amounting to £21,642.

1934

1934 budget. 41. With regard to 1934, the sanctioned estimates show :—

	£
Estimated Revenue	3,198,973
Estimated Expenditure—	£
Recurrent	3,169,828
Non-recurrent	18,213
	3,188,041
Estimated Surplus	£10,932

The total provision made for expenditure is £34,169 less than the provision made in the sanctioned estimates for 1933 in spite of an increase of over £50,000 in debt and pension charges.

42. The estimated revenue exceeds the 1933 figure by £152,858. This is principally due to the following factors :—

(1) The "pegging" of customs duties on certain articles which was effected by a Customs Tariff Amendment Ordinance in June, 1933, was considered to justify an increase of £25,000 in the customs revenue estimate. An increase of £4,000 is also anticipated from excise duties, mainly on beer and sugar.

(2) The additional taxation measures introduced in 1933 are estimated to bring in about £66,600 as follows :—

Non-Native poll tax graduated according to income	... ... ... ... £31,000
Traders' and professional licences	... ... 20,600
Package tax	... ... ... 10,000
Amendments to the Stamp Ordinance	... 5,000
	£66,600

(3) An increase of about £16,000 has been anticipated from native hut and poll tax on the assumption that 1934 will be a normal year during which no major climatic or other disturbances will interfere with the process of collecting the tax.

GENERAL

43. It will have been observed from the foregoing analysis that the economic depression, the fall of prices of primary products and the incidence of drought and locusts had a very disturbing effect on the revenues from 1929 onwards and that from 1930 to 1932 serious shortfalls in revenue took place. For convenience of reference actual revenue is compared with the estimate in the following table covering the period from 1923 onwards :—

Year	Estimated Revenue	Actual Revenue	Excess	Shortfall
1923	£ 1,784,662	£ 1,839,447	£ 54,785	—
1924	1,935,672	2,111,565	175,893	—
1925	2,160,325	2,430,509	270,184	— (I)
1926	2,373,994	2,627,223	253,229	—
1927	2,588,255	2,846,110	257,855	—
1928	2,859,404	3,020,694	161,290	—
1929	3,265,174	3,333,742	68,568	—
1930	3,461,612	3,241,600	—	220,012
1931	3,515,983	3,066,930	—	449,053
1932	3,295,414	3,010,214	—	285,200
1933	3,046,115	3,121,496	75,381	—
1934	3,198,973	—	—	—

(I) Actual revenue included £104,541 representing the balance of the Reserve Fund, Military Expenditure transferred to revenue during 1925.

44. Customs and excise revenue compared with estimates as shown in the following table. For the purpose of comparison, the figures given include the revenue from the wines and spirits consumption tax which was shown separately from November, 1926, to the middle of 1931 when the tax was incorporated in the Customs tariff.

Year	Estimates	Actual	Excess	Shortfall
1923	£ 427,050	£ 492,128	£ 65,078	—
1924	555,750	607,776	52,026	—
1925	650,000	680,461	30,461	—
1926	700,700	746,551	45,851	—
1927	814,650	865,468	50,818	—
1928	893,974	954,502	60,528	—
1929	960,712	988,219	27,507	—
1930	1,003,707	852,972	—	150,735
1931	992,539	718,294	—	274,245
1932	780,679	611,430	—	169,249
1933	617,780	600,417	—	17,363
1934	647,500	—	—	—

45. The above table illustrates the calamitous effect on the Customs revenue of the economic depression and adverse agricultural conditions. In 1930, despite a progressive fall throughout the year in commodity prices, the total value of Kenya produce exported was higher than in any previous year, but consequential imports on a scale comparable with those of preceding years did not eventuate owing to general financial stringency. In 1931 commodity prices remained low and there was a serious contraction in the total value of Kenya produce exported leading to a further contraction in imports. In 1932 the value of Kenya and Uganda domestic exports improved by 4½ per cent reaching a total of over £4,500,000 but the value of retained imports fell from £3,900,000 to £3,300,000.

46. The table also shows that revenue from Customs and Excise in 1933 was below the 1924 level and was no less than £387,802 below the maximum figure attained in 1929. This is undoubtedly due largely to the factors mentioned above but it may also be attributed in part to the development of the Colony's resources for the local market. The increasingly improved returns from 1923 to 1929 reflect a prosperous period with comparatively high prices stimulated by the importation in considerable volume of new capital, both public and private, for development.

**Native hut and
poll tax
revenue,
1923-1933.**

47. A similar table for native hut and poll tax revenue gives the following results :—

Year		Estimate	Actual	Excess	Shortfall
		£	£	£	£
1923	..	500,365	575,089	74,724	—
1924	..	508,850	561,629	52,779	—
1925	..	517,901	537,478	19,577	—
1926	..	522,950	558,044	35,094	—
1927	..	541,505	570,783	29,278	—
1928	..	552,025	564,405	12,380	—
1929	..	575,229	539,641	—	35,588
1930	..	607,940	591,424	—	16,516
1931	..	609,318	530,877	—	78,441
1932	..	586,176	515,277	—	70,899
1933	..	555,000	557,791	2,791	—
1934	..	571,257	—	—	—

The average receipts for eleven years are £554,767 and the maximum variation from the average during the whole period is less than £40,000.

**Debt and pen-
sion charges.**

48. Further analysis of the expenditure figures is necessary to an appreciation of the Colony's present financial position. The Colony incurs certain fixed charges which it is not within the

Colony's power to reduce. The most important of these charges are those in respect of public debt and pensions. The following table shows the incidence of these charges from 1923 onwards.

Year	Public Debt and Interest	Rent and Interest to Zanzibar	Pensions and Gratuities	Total for Debt and Pensions	Total Recurrent Expendi- ture	Recurrent Expendi- ture other than for Debt and Pensions
1923	£ 303,893	£ 17,000	£ 54,310	£ 375,203	£ 1,640,077	£ 1,264,874
1924	340,523	17,000	76,042	433,565	1,773,128	1,339,563
1925	424,645	16,500	76,532	517,677	1,997,154	1,479,477
1926	484,981	16,000	86,804	587,785	2,256,242	1,668,457
1927	503,537	16,000	89,133	608,670	2,358,825	1,750,155
1928	591,876	16,000	109,001	716,877	2,606,228	1,889,351
1929	781,590	16,000	117,285	914,875	2,987,775	2,072,900
1930	814,683	16,000	113,669	944,352	3,114,912	2,170,560
1931	891,495	16,000	132,637	1,040,132	3,076,884	2,036,752
1932	1,010,665	16,000	147,535	1,174,200	3,025,248	1,851,048
1933	(1) 995,924	16,000	193,045	1,204,969	3,094,833	1,889,864

(1) In 1933 the Sinking Fund Contributions in respect of the 1921 £5,000,000 Loan were reduced from 1·3 to 1 per cent reducing expenditure by £15,000 per annum.

49. In comparing expenditure figures for 1933 with those for previous years it should be noted that the 1933 figures include full provision for the Northern Brigade, King's African Rifles whereas in previous years the Kenya share only was shown; and that they also include provision for the Tanganyika Post Office and Telegraphs Services. The additional 1933 expenditure due to these factors is offset by a reimbursement from Uganda of £46,711 in respect of the Northern Brigade, King's African Rifles, and by a re-imbursement from Tanganyika of £57,927 in respect of Post Office and Telegraphs services. For the purposes of comparing 1933 expenditure with the expenditure of previous years the sum of these re-imbursements (£104,638) should be excluded and the figure shown in the right-hand column of the table in paragraph 48 then becomes £1,785,226.

50. Three points in particular should be noted from the table in paragraph 48 :—

- (1) The steady and rapid increase in the debt charges.
- (2) The rapid increase in the pensions charges particularly from 1930 to 1933.

(3) The reduction in recurrent expenditure on Heads other than those for debt and pensions services which fell from £2,170,560 in 1930 to £1,785,226 (vide paragraph 49) in 1933, a decrease of £385,334 in the annual cost.

This is the measure of the steps taken to effect economies in recurrent expenditure during the three year period under reference.

Colony and Transport debt.

51. The figures given for public debt and interest also require further examination because the Colony's accounts show the full burden of the Colony's loan charges, a large proportion of which was incurred on account of Railway and Harbour services. The Transport Administration reimburses the Colony for loan charges incurred on its behalf. The following table shows how the loan charges referred to in paragraph 48 have been distributed between the Colony and the Transport Administration from 1927 onwards :—

Year					Colony	Transport Administra-tion	Total
					£	£	£
1927	..	..	..	..	55,196	448,341	503,537
1928	..	..	..	..	78,455	513,421	591,876
1929	..	..	..	..	108,218	673,372	781,590
1930	..	..	..	..	119,488	695,195	814,683
1931	..	..	..	..	138,328	753,167	891,495
1932	192,060	818,605	1,010,665
1933	190,055	805,869	(1) 995,924

(1) See note to paragraph 48.

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I refers to the Main Report.

IA refers to the Note by Mr. T. J. O'Shea.

II refers to the Minority Report by Major F. W. Cavendish-Bentinck, Capt. C. B. Anderson and Col. G. C. Griffiths.

IIA refers to the Note by Col. G. C. Griffiths and Major F. W. Cavendish-Bentinck.

IIIB refers to the Addendum and Proviso by Major F. W. Cavendish-Bentinck

III refers to the Notes of Dissent and Minority Report by Mr. D. D. Puri.

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REPORT
OF THE
SELECT COMMITTEE
ON ECONOMY

X. 687. N 31(-

The expenses incurred in connection with the Committee were approximately £375, and the cost of printing and publishing this Report is estimated by the Government Printer at £75. These figures take no account of the time spent by officers of Government not specially seconded for service with the Committee.

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REPORT OF THE Select Committee on Economy

CHAPTER I.

INTRODUCTORY.

YOUR EXCELLENCY,

We were appointed by the following resolution passed in the Legislative Council on the 21st December, 1934—

"Be it resolved that a Select Committee of this Council be appointed to make recommendations to Legislative Council for measures of economy which, if adopted, will result in a net reduction amounting to not less than £100,000 in the net annual expenditure of the Colony, and that the following Honourable Members be appointed to serve on the said Committee :—

The Hon. the Colonial Secretary (*Chairman*).

Major the Hon. F. W. Cavendish-Bentinck.

Major the Hon. Sir Robert Shaw.

The Hon. Shamsud-Deen.

The Hon. R. W. Hemsted."

and we have now the honour to submit our report.

2. On the 20th of March, 1935, His Excellency Sir Joseph Byrne proceeded on sick leave, the administration of the Government being assumed by our Chairman, whose place was taken by the Acting Colonial Secretary, Mr: H. G. Pilling. On the 28th of February, 1935, Mr. Shamsud-Deen left the Colony and resigned from the Committee, his place being taken by Mr. J. B. Pandya. On the 1st of May, 1935, Mr. Hemsted left the Colony on leave. At that time, a first draft of a portion of the report was under consideration, and he expressed his views on it. That draft has been considerably amended since, and where Mr. Hemsted has not had an opportunity of examining the final report the fact is stated in footnotes.

3. We have held in all 39 meetings. Written or verbal evidence was received from a number of local residents, from Heads of Departments, Provincial Commissioners, and from other civil servants. In all, 60 memoranda were received and considered. Twenty-nine witnesses were examined, some of whom came before the Committee on several occasions.

4. We wish to express our appreciation of the assistance given to us by those who prepared memoranda for our consideration and by those who appeared in evidence before us.

5. Our terms of reference are clear and explicit. They are :—

“ To make recommendations to Legislative Council for measures of economy which, if adopted, will result in a net reduction amounting to not less than £100,000 in the net annual expenditure of the Colony.”

We have looked on it as mandatory to make such recommendations as will, in our opinion, if adopted, lead to a net reduction in net expenditure of not less than £100,000, and our concern has therefore been to indicate the lines on which we consider that a reduction of expenditure could be effected with the minimum of damage to the machinery of Government and to the Colony as a whole.

*6. At an early stage in our investigations we reached the conclusion that a material reduction in the cost of administration without a corresponding reduction of services would entail drastic alteration in the general structure and policy of Government. It was abundantly clear that no such changes could be, or ought to be, introduced without the fullest possible examination. At the same time, the need for reduction in Government expenditure has been generally emphasized to be urgent. We have therefore, in order to give effect to our terms of reference, made such recommendations for direct economies as we consider will best meet the situation; and at the same time certain members of the Committee have included proposals for the reorganization of the machinery of Government which, while including the reductions upon which we are generally agreed, would in their opinion allow of these, or even greater reductions, being made without involving an undue curtailment of services.

* Mr. Hemsted did not have an opportunity of reviewing the final draft of this paragraph.

***CHAPTER II.**
EXPENDITURE OF THE COLONY.

7. Before stating in detail the conclusions to which we have arrived, we feel that it is desirable to draw attention to the expenditure of the Colony for the past ten years, in order that the public may be aware of the true position. We have endeavoured in the table on page 4, not only to show the various rises and falls, but as far as is possible to analyse expenditure, with a view to demonstrating the reasons for the figures of the past few years.

8. The table largely speaks for itself, and we only wish to draw attention to a few points, namely:—

- (a) We have included the proceeds of the levy on official salaries, as, although it appears on the revenue side of the budget, it is, in effect, a reduction in expenditure;
- (b) Port and Marine Department expenditure (which was subsequently transferred to the Railways and Harbours Administration) has been treated in those years as non-recurrent expenditure, in order to maintain strictly comparable figures in the table;
- (c) Pensions and Debt Charges have increased from £517,677 in 1925 to £1,244,308 in 1934, and, according to the Estimates for 1935, show a further substantial increase;
- (d) Net recurrent expenditure, as calculated in the last line of the table, has progressively decreased from £2,062,583 in 1930 to £1,635,213 in 1934. Increased expenditure has therefore been caused by the incidence of Pensions and Debt charges.

9. In order to understand the financial position of the Colony, it is necessary to take revenue into account, and the following table, showing the surplus or deficit at the end of each year, shows that, from 1930 until 1934, the reductions in expenditure have not kept pace with the falling off in revenue.

YEAR	Surplus (+) or Deficit (-) on the Year	Surplus Balances at end of Year
1925..	+\$90,513	£149,723
1926..	+\$212,542	362,265
1927..	+\$330,995	693,260
1928..	+\$186,047	879,307
1929..	—171,331	707,976
1930..	—197,274	510,702
1931..	—149,159	361,543
1932..	—109,509	252,034
1933..	—46,539	205,495
1934..	+\$ 2,144	207,639

* Mr. Hemsted did not have an opportunity of reviewing the final draft of this chapter.

	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
	£	£	£	£	£	£	£	£	£	£
a. Estimated Gross Expenditure ..	2,117,225	2,388,753	2,570,064	2,840,197	3,188,165	3,555,535	3,442,932	3,246,477	3,222,210	3,188,041
b. Actual Gross Expenditure ..	2,339,996	2,414,681	2,515,115	2,834,647	3,505,073	3,438,874	3,216,089	3,119,723	3,168,035	3,180,795
c. Actual Non-recurrent Expenditure	342,842	151,104	144,317	228,419	517,298	323,962	139,205	94,475	73,202	58,749
d. Actual Recurrent Expenditure ..	1,997,154	2,263,577	2,370,798	2,606,228	2,987,775	3,114,912	3,076,884	3,025,248	3,094,833	3,122,046
e. Actual Debt Charges ..	441,145	501,481	520,037	609,026	799,040	832,383	909,443	1,029,045	1,014,304	1,047,372
f. Actual Pensions and Gratuities ..	76,532	86,804	89,133	109,001	117,285	113,669	132,637	147,535	193,044	196,936
g. Total of e. and f. ..	517,677	588,285	609,170	718,027	916,325	946,052	1,042,080	1,176,580	1,207,348	1,244,308
h. Recurrent Expenditure other than Debt and Pension Charges (d.-g.)	1,479,477	1,675,292	1,761,628	1,888,201	2,071,450	2,168,860	2,034,804	1,848,668	1,887,485	1,877,738
i. Actual yield from Levy on Official Salaries ..	—	—	—	—	—	—	—	53,815	49,177	48,188
j. Recurrent Expenditure other than Debt and Pension Charges minus Levy (h.-i.) ..	1,479,477	1,675,292	1,761,628	1,888,201	2,071,450	2,168,860	2,034,804	1,794,853	1,838,308	1,829,550
k. Reimbursements from other Ad- ministrations and from Local Authorities in respect of Audit, Coast Agency, Customs, Legal, Medical, Military, Municipal Rates, Police and Post Office and Telegraphs Recurrent Services	75,096	83,761	87,628	89,481	114,659	106,277	109,492	97,387	200,588	194,337
l. Net Recurrent Expenditure other than Debt and Pension Charges after deducting proceeds of Levy on Official Salaries and Reim- bursements shown under k (j.-k.)	1,404,381	1,591,531	1,674,000	1,798,720	1,956,791	2,062,583	1,925,312	1,697,466	1,637,720	1,635,213
m. Estimated Net Expenditure as* shown in the printed Estimates £	—	—	—	2,248,378	2,317,706	2,539,308	2,498,703	2,240,260	2,173,957	2,111,565

*These figures show Estimated net Expenditure only, and are neither actual figures, nor necessarily approximations thereto. Actual figures are not available. The corresponding figure for 1935 is £2,157,770.

10. With regard to the Surplus Balances tabulated above, we wish to stress that the figure of £207,639 takes credit for certain assets which are of a totally illiquid nature, and which are not only likely to remain so for some time to come but which may eventually have to be written off, in part at least. Further, in order to understand the true state of the Colony's finances, the cash position must be taken into account. In this connection, it should be borne in mind that a sum of approximately £100,000 is constantly needed for the day-to-day requirements of Government. This money is at present provided from the excess of deposits over advances, and, when that excess is insufficient for the purpose, loan funds are drawn on temporarily as required.

11. We append below two tables, one taken from Appendix 2 of the Expenditure Advisory Committee's Report, showing the actual cash position on the 30th of November, 1932, and one showing corresponding figures as at the 31st of December, 1934.

ACTUAL CASH POSITION AT 30TH NOVEMBER, 1932

(Appendix 2, Expenditure Advisory Committee's Report)

A.—SURPLUS ACCOUNT

	£
Balance on 1st January, 1932	361,543
<i>Less</i> Deficit on 1932 Accounts (11 months) : £	
Actual Revenue	2,747,406
Actual Expenditure	<u>2,897,554</u>
Deficit	150,148
Surplus Account at 30th November, 1932	<u>211,395</u>

B.—COMMITMENTS AGAINST SURPLUS AT 30TH NOVEMBER, 1932

	£
Agricultural Advances	106,388
Grain Subsidies	116,090
Loans to Local Authorities	2,189
Unallocated Stores	<u>61,448</u>
	286,115
Actual Surplus at 30th November, 1932 (as above) ..	<u>211,395</u>
Cash Shortage	74,720
Add Cash Required for Current Treasury Needs ..	<u>100,000</u>
Cash Deficiency	<u>174,720</u>

ACTUAL CASH POSITION AT 31ST DECEMBER, 1934**A.—SURPLUS ACCOUNT**

	£
Balance on 1st January, 1934	205,495
Add Surplus on 1934 Accounts	2,144
Surplus Account at 31st December, 1934	207,639

B.—COMMITMENTS AGAINST SURPLUS AT 31ST DECEMBER, 1934

	£
Agricultural Advances	105,950
Unallocated Stores	45,774
Civil Servants Housing Scheme	19,772
Loan to Maize Industry	111,460
Loan to Wheat Industry	4,205
Loan to Barley Industry	425
Actual Surplus at 31st December, 1934 (as above) ..	287,586
Actual Surplus at 31st December, 1934 (as above) ..	207,639
Cash Shortage	79,947
Add Cash Required for Current Treasury Needs.. . .	100,000
Cash Deficiency	£ 179,947

12. These tables show that, during the past two years, the cash deficiency has risen from £174,720 to £179,947. Whether this deficiency is met by drawing from time to time upon the running excess of deposits over advances, or from loan funds, seems to us to be immaterial. The money is not there, and until the budget is balanced with a substantial surplus, or series of surpluses, a cash deficiency is bound to remain. While such a deficiency exists, the Colony's finances cannot be said to be in other than a definitely unhealthy condition. The financial policy of the Government should therefore, in our opinion, be directed to the acquisition of an adequate cash surplus, a result which can only be achieved at present by a series of substantial surpluses of revenue over expenditure.

CHAPTER III.*GENERAL CONSIDERATIONS.**

13. Under our terms of reference it was necessary to examine, and take evidence on, the organization of every Government department. We naturally took, as a basis of our investigations, the structure of the Government machine as reflected in the Estimates of Revenue and Expenditure for

* Mr. Hemsted did not have an opportunity of reviewing the final draft of this chapter. Mr. Pandya's assent is subject to his dissenting minute in Part 2 of Chapter IX.

the year 1935, as passed by the Legislative Council on the 21st December, 1934, the date on which this Committee was appointed.

14. These Expenditure Estimates amount to £3,237,529, of which £3,216,387 is estimated to be required for recurrent expenditure and £21,142 for non-recurrent expenditure. Of the recurrent expenditure, a sum of £1,275,068 is required for Debt and Pensions Services.

15. It will be appreciated that this Committee was making its inquiries under peculiarly difficult conditions, in that, owing to the shortfall in revenue which has taken place during five of the last six years, Government had already been forced to adopt all measures of economy which they considered practicable, and, moreover, the Expenditure Advisory Committee, which sat in 1932 and reported as recently as 1933, had made recommendations for further economies and had laid down a programme of expenditure up to and including the year 1936. The Expenditure Advisory Committee's inquiries were, however, conducted under limited terms of reference, which is not the case as regards the deliberations of this Committee.

16. As our terms of reference instructed us to find economies amounting to *not less* than £100,000—possibly a somewhat vague instruction—we felt that it would be advisable to keep some more definite aim in view, and we therefore agreed to endeavour to aim at the proposal which has been urged by the unofficial community for many years past, and to try to make recommendations whereby the total maximum gross expenditure of Government could be limited to a sum not exceeding £3,000,000, and the estimated net expenditure of the Colony, as it appears on the cover of the printed Estimates, to a sum not exceeding £2,000,000.

17. We adopted this line of policy because we felt that, viewed broadly, the object of our Committee was to put forward recommendations which would render it possible to reduce Government expenditure to such a figure as to ensure a probability that we should again be living within our revenue, even should the existing adverse circumstances continue, and that, when the tide did turn, Government would ensure ending the year with a reasonable surplus once again, which would enable the Colony to make a belated start in remedying the very serious cash position, and would afford prospects of some resources, not for building up again an extravagant "over-head", but for expenditure on urgently necessary productive purposes, in return for which the Colony will have some capital assets to show.

18. In order to accomplish the objective referred to in paragraph 16, we realized that it would not be sufficient merely to prune the already considerably reduced heads of departmental expenditure, but that some major reconstructions of the existing machinery of Government, as well as some suggestions with regard to the Colony's loans, and definite recommendations regarding the salaries and terms of service governing some branches of the Kenya Civil Service, would probably be found necessary. In our report we therefore make recommendations on all these subjects.

19. Some of our recommendations have, perchance, been somewhat arbitrary in character. At the commencement of our inquiries we found that with few exceptions we were unlikely to obtain suggestions for further economies from departmental heads, who almost all affirmed that the limit of reduction had been reached, and that any further curtailment of expenditure would result in very serious loss of efficiency in the activities of their departments. We found it almost impossible to induce heads of departments to look upon the question from the point of view of an obligatory reorganization owing to the fact that not more than a given sum could, under existing circumstances, be allocated to their department. They, perhaps not unnaturally, adhered to the view that their department was an immutable structure performing certain inviolate services and that, having made all the obvious reductions they considered possible, somehow or other ways and means must be found to finance their activities.

20. After some fourteen days of possibly somewhat fruitless inquiries, we therefore singled out those departments in which we considered further cuts would have to be made, and we wrote arbitrarily requesting the heads of such departments to submit proposals as to how they would reorganize the machinery of their department were cuts of 5 per cent, 10 per cent or 20 per cent forced upon them. We only took this measure after to some extent making up our minds as to the general lines on which such further reductions were possible, and, having obtained proposals from such heads of departments, we examined them meticulously ourselves, and, in many cases, altered them considerably.

21. In this connection we would point out that heads of departments, however willing, find it extremely difficult to implement at such short notice any general percentage cut in the total expenditure of their departments owing to the existing Treasury system of accounting which is enforced in

this Colony. We are informed that in certain other territories, when similar measures of economy had to be enforced, heads of departments were ordered to cut their expenditure by five or ten per cent, and were given complete freedom to carry out such cuts in any way they thought best during the course of the year. Their estimated expenditure appeared in the budget as originally put forward, with a one-line vote at the end showing less an x per cent cut subtracted, and giving an amended total. Under the system existing in Kenya this would apparently not be permitted. Nevertheless, we have, after consultation with certain heads of departments, agreed to recommend that they should be given this latitude. This matter is referred to when we are dealing with individual departments.

22. The suggestions which are put forward at a later stage for any major reorganization of Government emanate from certain members of the Committee only, but not before some evidence was heard as to their effect.

23. We would like to stress that all the recommendations contained in the following pages, although in some cases to a certain extent arbitrary, have not been arrived at without careful inquiry as to their effect on the Colony.

CHAPTER IV. DEPARTMENTAL EXPENDITURE.

24. We now pass to the closer consideration of individual departments, and to the formulation of detailed recommendations for economies, for the curtailment of certain services, and for the possible discontinuance of others.

*25. In making recommendations for reduction in staff of the various departments and for the curtailment of services, we have not been unmindful of the necessity of keeping a reasonable Government machine in being proportionate to the financial position of the Colony, and the instructions given to us in our terms of reference. We are satisfied that an efficient service can be maintained by the reduced department staffs and within the reduced expenditure which we recommend. In this connection, however, we feel it our duty to record that during the course of our deliberations we have gained the impression that under existing Colonial Regulations, as interpreted in Kenya, a tendency exists to assist certain senior

* Mr. Hemsted did not have an opportunity of reviewing the final draft of this paragraph.

officers to reach their maximum pension scales by their retention in responsible positions after they are past their efficiency, thus blocking avenues of promotion for more capable, energetic and, in many cases, younger men.

26. The following represent our detailed recommendations with regard to each department :—

**Head I.—His Excellency the Governor.*

27. The total vote under this head amounts to £14,869. We feel, however, that it would not be irrelevant to point out that His Excellency the Governor receives a further contribution towards his expenditure in his capacity of High Commissioner for Transport, which contribution amounts to an additional £3,145. Although admittedly the Railway is a joint service, and therefore this further contribution is not derived solely from the Kenya railway user, the fact nevertheless remains that the Governor of Kenya, so long as he fills both offices, receives in Personal Emoluments, Duty Allowance, and Housing Contributions, £9,500, and his total vote from combined sources amounts annually to £18,014.

28. We have come to the conclusion that the expenditure under this head is more than the Colony can afford. In coming to this conclusion, we have taken into consideration the expenditure incurred under this head in other colonies, and we note that the total establishment charges, including personal emoluments, staff, travelling, entertainment, and motor transport, comparable with Kenya's figure, amount in Southern Rhodesia to £9,727; in Nigeria to £10,543; in Northern Rhodesia to £7,285; in Tanganyika to £11,064; and in Uganda to £9,766; and that the total provision for the Governor General of the Union of South Africa amounts to the comparatively low figure of £24,113.

29. In making the foregoing comparisons we are aware that at present the Governor of Kenya pays Customs duty, whereas the Governor of Uganda is exempt. This arrangement appears to us an anomaly in view of the Customs Union between the two territories, and we feel that if it is customary to exempt the Governor from Customs duties the same procedure should hold good in Kenya.

* Mr. Pandya and Mr. Hemsted are not in agreement with this section of the Report, except that they are prepared to endorse the recommendation in paragraph 32, provided that the reduced rate of Duty Allowance should be applicable only to future holders of the post.

30. We therefore recommend that the total provision be reduced to £15,000, and the savings be proportionately divided as between the Government and the Railway.

31. As suggestions as to lines on which such savings could be effected we propose as follows:—

32. *Item No. 2, Duty Allowance, £2,500.*—Whilst appreciating that the increases in the salary and duty allowance of the Governor from £4,000 to £5,000 and from £1,500 to £2,500 respectively, which took place in 1926, were made partly as a result of a motion moved in Legislative Council on the 8th February, 1925, by the Leader of the Elected Members, and whilst agreeing that at that time an increase in the duty allowance of the Governor may have been justifiable in the light of the then existing circumstances, we feel that under present-day conditions a reduction should be made in the amount of duty allowance to the Governor to the figure of £1,500 at which it stood before 1926. In making this recommendation we would point out that there is no duty allowance attached to the salaries of the Governors of Southern and Northern Rhodesia, and that the duty allowance paid to the Governors of Tanganyika and Uganda amounts to £1,500.

33. *Item No. 7, Chauffeur-Mechanic, £444.*—We feel that a maximum salary of £400 per annum, plus a house, represents adequate remuneration for a chauffeur-mechanic. In making this recommendation, we are aware that the present occupant of the post is on the same incremental grade of salary as the occupier of a similar post in Uganda. We consider, however, that the existing scale of salary is too high.

34. *Item No. 8, Superintendent of Government House Gardens, £258.*—We do not consider that it is necessary there should be a superintendent of Government House gardens. We feel that, should occasional supervision be necessary, this could be carried out, as in the past, by an officer from the Forest Department, who would probably in any event be in charge of the neighbouring Arboretum. At present, without making allowance for convict labour employed in Government House grounds, the expenditure on the Government House garden alone amounts to £786 a year.

We recommend abolishing this post.

35. *Item No. 14, Carpenter, £156.*—We do not feel that the retention of a permanent carpenter in Government House can be necessary. Any necessary work could be done by the Public Works Department or by contract.

We recommend abolishing this post.

36. The further savings required could, we feel, be secured on similar lines.

37. The total reduction recommended in Government expenditure under this head amount to approximately £2,300.

Head II.—Administration.

38. We have given careful consideration to the possibility of effecting economy in the cost of Administration by the closing down of certain stations, enabling the establishment of Administrative Officers to be reduced, and some savings to be made under Other Charges.

39. Generally speaking, it may be said that the rapid development of motor transport during the past few years, and the simultaneous development of a road system which, except during certain times of the year, is reasonably efficient, has to a large extent annihilated distances, and consequently some increased measures of economy can now, in our opinion, be effected without detriment to the Colony.

40. We understand that a temporary arrangement has been made by which the District Officer has been withdrawn from Kitale, and court work there carried out on regular visits by the Resident Magistrate stationed at Eldoret. We recommend that this temporary arrangement should be made a permanent measure.

41. At present there are in the Masai Reserve, which comprises an area of approximately 15,000 square miles, an Officer in Charge at Ngong, District Commissioners at Kajiado and Narok, with a District Officer also at the last named station, i.e. a total of four Administrative Officers in the area, the population of which is in the neighbourhood of 48,000. By way of contrast, Central Kavirondo District has only three officers, with a native population of approximately 370,000. After careful consideration, and consultation with the Acting Chief Native Commissioner, we recommend that Kajiado Station should be closed, and that the area at present administered by the District Commissioner should come under the control of the officer stationed at Ngong. If this proposal is adopted, it may be necessary for the District Officer at

Narok at times to tour the eastern part of the reserve. Our recommendation should enable the establishment of District Officers to be reduced by one.

42. The area administered by the District Commissioner at Kipini comprises part of the basin of the Tana River, while there is also a District Commissioner stationed at Lamu, some 40 miles north of Kipini, who administers the adjacent district. It would, we consider, be advantageous for Kipini Station to be closed, and the officer there transferred to Lamu. This transfer would not enable any reduction to be made in European personnel, but the closing of Kipini should enable some minor economies to be effected.

43. We have given considerable thought to the organization which should obtain in the Northern Frontier District, and, on the evidence which we have had, it seems to us that there is considerable duplication of work between the Provincial Administration and the Military. To remedy this there are, broadly speaking, two alternatives, namely, the withdrawal of the Military, and the withdrawal or partial withdrawal of the Administration. In a subsequent section of this report we recommend the adoption of the first alternative. At the same time, the development of road transport has been such that we consider that one of the stations can be closed. All the evidence which we have heard leads us to the belief that the most suitable reorganization would be the closing down of Isiolo, with the transfer of the Officer in Charge to Wajir, and the administration from Wajir of the area at present controlled by the District Commissioner, Isiolo. This reorganization would be contingent on the completion of a motor road from Marsabit to Wajir, on which we understand work has commenced. We recommend that Government should seriously consider the possibility of effecting such a reorganization, with consequent economy, and possibly with a reduction of a further officer in the establishment of District Officers.

**Head III.—Agricultural Department.*

44. The total estimated cost of this department in 1935 amounts to £125,871. The activities of this department are divided as between Plant Industry and Animal Industry. It is not easy to allocate with accuracy the expenditure on each

* Mr. Hemsted agreed to the definite recommendation, in paragraph 49, that the basic expenditure of the Department should be reduced to £110,000, but did not have an opportunity of expressing his views on the draft Report.

side of the department's activities, but according to the Director of Agriculture approximately £58,000 is on account of the Division of Plant Industry and approximately £67,000 on account of the Division of Animal Industry.

45. In the course of our inquiries into this department we came to the conclusion that a reorganization on somewhat drastic lines was necessary, and in the course of several lengthy interviews with the Director and other senior officers of the department it became clear that this need for reorganization was generally accepted in the department itself.

46. During our search for reductions we examined proposals affecting each side of the department separately. On the Veterinary side, a detailed scheme was submitted to us, drawn up on the principle of basing all veterinary activities on research. With this principle and with the scheme submitted, with certain small modifications, we are in substantial agreement. We have not, however, definitely accepted this scheme, owing to the fact that no such detailed proposals were available as regards the Plant Industry, and we felt that definite acceptance of the scheme in its precise form put forward might tend unduly to separate the activities of the department as a whole. We were further informed by the Director that he was in the process of formulating a scheme for the reorganization of the department which would, to a large extent, incorporate the suggestions put forward in regard to the veterinary side without any tendency to split the activities of the department, which are and must remain in many ways interwoven. At the same time it was evident that under present conditions there is unnecessary overlapping, not only between the different branches of the Agricultural Department itself but between the activities of the Agricultural Department and those of other departments and the Administration. As an example of what we mean we would refer to the assumption—entirely false, in our opinion—that instruction of natives in the art of animal husbandry is the function of veterinarians. This work should be carried out by the Administration, assisted by a suitable staff of Agricultural Officers and Instructors in Stock posted thereto for that purpose. Nor do we think it right that veterinary officers should teach reading and writing. (Page 62 of the 1933 Native Affairs Department Report.) We also do not think that the appointment of a special grasslands officer is justified in view of the fact that several agricultural officers have specialized in this subject, and are themselves dealing with grass problems to-day.

47. On the plant side, the evidence submitted appears to indicate clearly the necessity for further co-ordination of research and investigational services. We suggest that the Scott Laboratory, the Plant Breeding Station, such special work as may be required in the interests of the coffee industry, and all other research work should be more definitely placed under the control of one officer of suitable qualifications, who might be described as the Chief Agricultural Research Officer. We strongly urge the adoption of a policy framed on these lines. At the same time we hold equally strongly the view that the actual stimulus of successful agricultural development in native areas must emanate from Administrative Officers, who should be assisted by the necessary technical staff, posted to the Administration for that purpose; and furthermore that such staff should consist, to a far greater extent than is the case at present, of locally engaged men. The engagement of large numbers of highly qualified officers on a permanent and pensionable basis for this work is, in our opinion, entirely unnecessary.

48. To summarize, our ideas are that the much-needed increased agricultural development in the native reserves should radiate via the Administration, assisted by the technical advice of agricultural officers attached to provinces and districts, and by locally engaged development officers. The foregoing should only somewhat loosely be connected with research. Research in general should be more closely co-ordinated and should be carried out by special officers under the Chief Research Officer. At present, research is being carried out in numerous different channels, and there seems to be some lack of co-ordination and control, and the present system appears to be extravagant.

49. It would be difficult for us as laymen to dictate the technical details of any such drastic reorganization as we visualize. Furthermore, in view of the fact that the Director of Agriculture himself seems to be largely in agreement with our views, we feel that the details of any such reorganization would be far better left to the Director himself. We therefore content ourselves with making the definite recommendations, that the basic cost of this department be reduced to £110,000, thus effecting a reduction of £15,000 in a full year, and the Director of Agriculture has undertaken to draw up a scheme to keep his expenditure within that figure without causing, as far as we can see, any appreciable loss in efficiency. In fact, we consider that in the long run this reduction will be conducive to greater efficiency.

Head IV.—Audit Department.

50. We have experienced considerable difficulty in formulating any concrete recommendation in regard to this department. The cost of Audit in Kenya is high compared with other African dependencies, and, in our opinion, hypothecates an excessive proportion of the Colony's revenue. We feel strongly that the cost can and should be materially reduced.

51. The position is, however, somewhat complicated by the fact that the Auditor is, in certain respects, responsible to the Director of Colonial Audit while, in respect of joint services, he is responsible to the Governments of neighbouring territories and to the Kenya and Uganda Railways as well as to the Government of Kenya. Care should therefore be taken that any economies effected should not affect the intensity of the check in respect of joint departments, as any such economy might lead to a reduction in the reimbursements which the Government of Kenya receives.

52. Major Cavendish-Bentinck and Sir Robert Shaw do not agree with the last sentence of the preceding paragraph. They endorse the view expressed in paragraph 206 of the Report of the Expenditure Advisory Committee, which reads as follows :—

"206. We have reached the conclusion that the degree of check to which the allocations of Customs receipts between Kenya and Uganda as made by the Commissioner of Customs are subjected, is unduly meticulous in view of the comparatively small adjustments which have to be made in the past as a result of that check. We recommend, therefore, that the Government of Uganda should be approached with a view to obtaining mutual agreement for a reduction in the intensity of the audit check of the allocations of Customs revenue between the two territories".

53. The recommendations of the Expenditure Advisory Committee in respect of this Department were as follows :—

"202. We have come to the conclusion that the cost of audit in Kenya is still too heavy in present circumstances, and recommend that the posts of Deputy Auditor and five clerkships be abolished, even if this entails some diminution in the intensity of the check applied. As a result of our enquiries we are satisfied that in certain departments (particularly self-accounting departments) a

satisfactory system of internal check is maintained, and therefore the intensity of the audit can be relaxed without danger.

204. In recommending the abolition of the post of Deputy Director, we are influenced by the fact that the Auditor is not a member of either Executive or Legislative Council, and seldom serves on committees.

205. We consider that expenditure under this head should be limited to £19,347."

These recommendations have not been accepted by Government.

54. After careful consideration, we have come to the conclusion that it is not possible for a Committee of this nature to recommend any reduction in this Department which is not of an arbitrary character. At the same time, we are entirely convinced both of the desirability and practicability of substantial economies, and we therefore recommend that immediate steps be taken to effect a reduction in expenditure of not less than £1,000, in whatever manner the Auditor considers least undesirable. Although we would not wish to fetter the Auditor's discretion in effecting this reduction, the majority of us feel that the recommendations of the Expenditure Advisory Committee should be reconsidered. We are fully appreciative of the thoroughness of the existing check but we feel that in view of the urgent need for economy some relaxation is possible and we are not convinced that any loss of revenue would result if the Auditor were given discretion as to where such relaxation should be exercised. Mr. Pandya would not, however, approve of any proposal to reduce the number of clerks, as he is of the opinion that, as the clerks are primarily responsible for the carrying out of routine checks, any such reduction would materially impair the efficiency of the Department.

Head V.—Coast Agency.

55. Proposals for reductions of 10 per cent and 20 per cent in this Department have been submitted to us. The proposals for a 10 per cent reduction would eliminate :—

- (a) The transport and clearing services rendered to Government officials of Kenya and Uganda while proceeding on and returning from leave;
- (b) The mechanical transport of Government stores and officials' kit to and from stations in the Coast Province;

- (c) Transport in connection with household removals in Mombasa.

The proposals for a 20 per cent reduction would eliminate the above services and in addition :—

- (a) The control and conveyance of Government stores to and from the Railway station for distribution to and collection from the various Government departments in Mombasa ;
- (b) The conveyance of Government stores to and from the docks ;
- (c) Transport of currency, specie and ivory.

56. The majority of us feel that we cannot recommend any such drastic reduction of services. We note, however, that there are two European officers in the Department, a Coast Agent and an Assistant Coast Agent, but while the Coast Agent is on leave his work has in the past been carried on by his Assistant and vice versa. For this reason, we are satisfied that there is no real necessity for two permanent officers. We therefore recommend that the post of Assistant Government Coast Agent be abolished, and that arrangements should be made for a suitably qualified officer of the Customs Department to act for the Coast Agent when he proceeds on leave. The annual saving effected by the acceptance of this recommendation would amount to approximately £510, but this reduction might possibly be offset to a slight extent in every third year by the necessity of paying for a temporary relief.

Head VII.—Customs.

57. We have considered the desirability of closing the Nairobi Bonded Warehouse, but, after full enquiries, we are satisfied that it is in the public interest that some bonding facilities should be preserved. At present, the warehouse is open each morning but, on the evidence which we have heard, we have formed the opinion that, in the present financial circumstances, the facilities should be confined to two mornings in each week. We are informed that such a curtailment of activities would enable one post of Examining Officer to be abolished, with an annual saving of £440.

58. We understand that, if the recommendation in the preceding paragraph is accepted, the commercial community may be put to some inconvenience in that demurrage might be chargeable on goods between the time of their arrival at Nairobi Railway Station and their clearance to the Bonded Warehouse, a period which might amount to four days. We

suggest that representations should be made to the Railway Administration asking them to consider waiving such demurrage charges.

59. We recommend the abolition of two Asian clerkships, Arab or African clerks being substituted.

60. We also advocate a reduction of £500 in the cost of the preventive service, the principal function of which is to guard against the illicit landing and shipment of goods and to ensure compliance with the regulations governing the coastwise movement of cargo. We are satisfied that the danger to the revenue of the reduction which we recommend is very small.

61. The total effect of our recommendations is a reduction in expenditure of £1,382. Our wishes would, however, be met by a reduction of £1,000, and we are content to leave the details of such a reduction to the discretion of the Commissioner of Customs.

62. In Mr. Pandya's opinion, the proposal to keep the bonded warehouse open on two mornings only each week in Nairobi will create a good deal of hardship to the commercial community and will materially reduce the value of bonding facilities.

63. With regard to the possibility of general economy in this department, he considers that in view of the fact that it is a joint department and not a purely Kenya department (Uganda also having a say from the point of view of safeguarding revenue), any reduction in expenditure would be difficult to effect, but it might be possible to make some economies by reduction in the establishment of collectors and such other posts.

Head VIII.—Education.

64. The total cost of this department, as reflected in the 1935 Estimates, amounts to £177,855. Considerable economies have been effected during the past few years, more especially on Other Charges Votes, so that there is little margin for economy, other than that which we will now recommend.

65. There are certain new services in connection with Indian and African Education for which the Director of Education desires to make provision in his 1936 Estimates. They are :—

A.—Restoration of free grants at £3 per head to Indian Schools in receipt of grants-in-aid : £1,000.

(In the Director's opinion, the present system is most unsatisfactory, and results in considerable hardship to the larger schools, making it practically impossible for them to continue.)

B.—One additional Master, Indian Secondary School, Nairobi, for training of teachers : £300.

C.—One additional Mistress, Indian Girls' School, Mombasa, for training female Indian teachers : £200.

(At present there are no facilities in the Colony for training Indian teachers, while recruiting from India is, in the Director's opinion, expensive and unsatisfactory.)

D.—Payment to Government of Uganda for African teachers-in-training at Makerere College : £100.

(The Director considers that the African staffs in Government Schools are very weak, and regards it as important that more highly trained teachers should be obtained.)

66. We offer no objection to the inclusion of these items in the 1936 Budget, and we have borne them in mind in framing our recommendations in reduction.

67. We understand that the system of technical education for Africans has been changed recently, and that technical pupils are now taught entirely at the Native Industrial Training Depot at Kabete, instead of undergoing a period of preliminary training at a Government or a Mission School. It appears to us, therefore, that the necessity for supervision of technical education is not so great as it formerly was, and we therefore recommend that the post of Supervisor of Technical Education be abolished, saving £960 in a full year.

68. Provision appears in the Estimates for five Inspectors of Schools. We advocate a reduction of two posts, which would leave three Inspectors, one for Nyeri, one for Kavirondo and one for Nairobi. Reliefs for Inspectors on leave would be drawn from Government African Schools or from Education Officers in other schools, while the Coast area would be inspected by the headmaster of the Allidina Visram High School, supplemented by occasional visits from the Director of Education and the Chief Inspector of Schools. We realize that this reduced establishment must throw increased work on the balance of the inspector staff, but we are of opinion that it should be given a trial in the interests of economy. The saving would amount to approximately £1,430 in a full year.

69. The estimates contain provision for nine European clerks in the head office. After consultation with the Director, we recommend that four of these posts be abolished, and that the establishment of African clerks should be correspondingly increased by four. The saving which would be effected would approximate to £1,290 in a full year.

70. Under present arrangements, pupils in European and Indian Schools receive necessary books free of charge. The majority of us, Mr. Pandya dissenting, consider that it would be reasonable, in existing circumstances, to abolish this free issue of books—which we understand does not take place elsewhere—and we accordingly recommend that the necessary action be taken, enabling a saving of approximately £400 in a full year.

71. After full consideration, we recommend that the Education Department Stores be closed down. This would involve the abolition of one post of European clerk, and the retrenchment of certain menial staff. The saving in Personal Emoluments would amount to approximately £500 per annum, while in addition the rent of the Stores building, amounting to £100 per annum, would also be saved. If this proposal is adopted, we envisage that existing stocks will be disposed of in the following manner :—

- (a) Blankets, clothing, etc., will be distributed to schools and stored until required for issue;
- (b) Books could either be distributed free to Missions or sold;
- (c) Tools, brooms, brushes, etc., should be transferred to the Public Works Department Stores;
- (d) In respect of other miscellaneous stores, a list should be prepared and circulated to other departments. Any which may not be required could be transferred to the Public Works Department Stores.

72. As regards future stores policy, there seems no good reason why the Government Press should not comply with indents for pens, stationery, etc., as obtains in the case of other departments. Household articles, such as soap, brushes, brooms, etc., should be purchased locally as required through the medium of the Central Tender Board or obtained from the Public Works Department Stores which, we understand, holds stocks of these articles. In the case of such provisions as are not at present included in Central Tender Board lists,

tenders for supplies covering a period of six months, or possibly one year, should be called for. Any requirements of the Native Industrial Training Depot in the way of timber, cement, nails, screws, etc., should be obtained through the Public Works Department.

73. We consider that the European Primary School at Kilimani should be closed. At present only some twenty children attend the school, while the advent of the Kenya Bus Service and the fact that many of the parents go into town daily by car and can drop the children at the Nairobi Primary School makes it apparent that little hardship would be caused by closing the school, more especially as there is an established private school at Kilimani. The closing of the Government school would involve the abolition of one post of Education Officer, and would effect a total annual saving in the neighbourhood of £610 per annum.

74. There is a Government African School at Waa in Digo District, which is situated on the mainland approximately eight miles to the south of Mombasa. Its original purpose was to train artisans, but it has now become a primary school, and, in the Director's opinion, it is serving little useful purpose because the educational standard is very low, most of the pupils are too old to be still in the primary stage, and great difficulties have been encountered in maintaining discipline. We recommend that the possibility of leasing the buildings to a Mission, or, alternatively, of their being used for training purposes by the Agricultural Department, be examined. If neither of these courses prove practicable, we recommend that the school be closed. The closing of this school would involve the abolition of one post of Education Officer, and would effect a saving of approximately £2,026 in a full year.

75. We understand that the headmaster of the Arab School at Shimo-la-Tewa enjoys a salary of £920 per annum. We consider that a suitable maximum scale of salary for this post would be £600 by £30 to £720 and we recommend that, as soon as practicable, the present holder of the post be retired and be replaced by an officer on the lower scale of salary. The resultant saving, apart from pension commitments, will amount to not less than £200 annually. We also recommend the abolition of one post of Education Officer under Arab Education, saving £475.

76. Under Items 82 and 83 of the current Estimates, provision appears for thirty-two Education Officers and fourteen Technical Instructors, i.e. a total of forty-six posts,

engaged in African Education at a cost of £19,595. The Director of Education is of the opinion that the number of these posts can be reduced by four, and that, by a certain regrading which he has in mind, a total saving in the neighbourhood of £3,000 can be made, if the regrading is approved by the Secretary of State. We understand that these proposals will involve no actual retrenchments, but will merely leave certain existing vacancies unfilled, for which provision has been made in the 1935 Estimates, and we recommend their adoption.

77. We observe that provision appears in Item 92 of the current Estimates for the payment of hut and poll tax out of the votes of the department in respect of certain pupils in Government African Schools. We consider that in cases in which the payment of native hut and poll tax is held to be a charge on public funds, the position should be met by the exemption of the pupils concerned. We recognize that, if this item disappears from the Expenditure Estimates, there will be a corresponding reduction in revenue.

78. The total reduction in the Annual Expenditure of this Department which would result from the complete acceptance of all our recommendations amounts to approximately £9,691. The Director of Education considers that so drastic a reduction, amounting to approximately 5.4 per cent of the total appropriation for the department, cannot be effected without some loss of efficiency.

(79. Note by Mr. Pandya : I wish to record my opposition to the proposal in paragraph 70 regarding the withdrawal of free issue of books in the Government schools. It is assumed that books are issued free because no specific charge is made for such supplies. This is not quite true. The high fees now in force were fixed on the basis or understanding that books would be supplied free of charge by the Government, and the withdrawal of such a free supply should be subject to a corresponding reduction in fees. Without such reduction the proposal would mean, indirectly, an increase in fees which are already very high.

80. In my opinion, if the proposal were adopted, in many cases—due to depression and hard times—it would become more difficult for parents to educate their children because of the increased cost of books, and the poorer classes particularly would be very hard hit.

81. Further, this measure is not a genuine economy. Government expenditure might show a small saving of £400 annually, but it would mean a large additional expenditure to the individual parent. It would thus be an increased burden passed on to taxpayers who are least able to bear it.)

*82. A proposal to close the European Girls' Secondary School, Nairobi, leaving secondary education for European girls entirely to private enterprise, was submitted to us. After full consideration, we are satisfied that any economy which would result from the adoption of this proposal would be extremely small, and entirely out of proportion to the harm which would be caused by closing an institution which has proved its value. We are therefore unable to recommend the proposal.

Head IX.—Forest Department.

83. We note that expenditure under this Head is very much greater in Kenya than in any other comparable territories. The total vote for 1935 in Kenya amounts to £31,448, in Tanganyika to £17,342, in Uganda to £14,928 and in Southern Rhodesia to £11,759. Notwithstanding the revenue earned we therefore consider that the cost to the Colony of the Forest Department is unduly high. A considerable proportion of the expenditure of the department is incurred not so much in the protection of existing forests, which protection we consider to be vitally important, but on the establishment of plantations in comparatively circumscribed areas. Reafforestation is, of course, both necessary and desirable but the areas which are being planted up at present are disproportionate to the extent of the areas which are being destroyed annually by natives, and owing to their comparatively small size such plantations do not contribute adequately to prevention of denudation or conservancy of water. Admittedly, such plantations will in years to come produce good lumber to the benefit of posterity and to the eventual enlargement of the Colony's forest assets. It is questionable, however, whether we can afford to embark on anything more than a somewhat meagre reafforestation scheme in bad times as it might be contended that such expenditure on any large scale is only a fair charge on special supplementary grants in times of prosperity, and we consider that all the Colony can afford at present is to maintain its existing assets and actively prevent further encroachment and destruction of forest areas.

*The proposal referred to in this paragraph was still being examined when Mr. Hemsted departed on leave.

84. As has been pointed out in the previous paragraph the total expenditure of the department amounts to £31,448, and at our request the Acting Conservator of Forests has prepared a draft provisional estimates on a purely maintenance basis totalling £27,290. These will be found in Appendix 2. We recommend that these draft estimates be adopted but would add that should Government see fit to accept our recommendations, the Conservator of Forests should be instructed to adhere to the policy, outlined in paragraph 83, of maintaining the existing forest estates and to make his reductions in the reafforestation and nursery votes. It is only fair to state that the Acting Conservator of Forests considers the reductions unsound. In his covering memorandum to us he stated :—

“In conclusion I would repeat that if the Committee wish to advocate decreased development they may recommend the reduction of the Reafforestation and Nursery Votes, but for the maintenance of the Forest Estate for posterity I would ask that they will record my opinion that I consider the estimates that I have been asked to submit unwise.”

Head X.—Game Department.

85. The cost of the Game Department, according to the 1935 Estimates, is £8,596. Although considerable revenue accrues from the issue of Game Licences and from the sale of Ivory and Confiscated Trophies, it is the case that the bulk of this revenue is collected by officers of the Administration, rather than by the staff of the Game Department. Although valuable work is carried out by the Department, notably in connection with the control of poaching and the destruction of vermin, we consider that its cost can and should be reduced without serious detriment to the Colony.

86. We recommend the abolition of one post of Assistant Game Warden and the post of Temporary Game and Vermin Control Officer, with a consequential reduction of £150 in the Local Transport and Travelling Vote. In order, however, that the work of vermin control should not unduly suffer, we recommend an increase in the item “Expenses of Game and Vermin Control” from £250 to £500. The net effect of our recommendations would be a reduction in expenditure of £1,000 in a full year.

Head XV.—Local Government, Lands and Settlement.

87. We are of the opinion that the necessity for a post of Local Government Inspector no longer exists. An inspector was valuable, during the early days of local government, in advising local authorities as to accounting methods and procedure generally. The present system of Municipalities and District Councils has been functioning for several years on well-defined lines, and we consider that the regular audit supplies all necessary check and supervision. The post of Local Government Inspector has been vacant for several months, and there is no evidence that local authorities have suffered through lack of supervision. We therefore recommend that the post be abolished. Our recommendation for the abolition of this post is in no sense contingent on the acceptance of the recommendations in regard to District Councils generally, which appear in Chapter VII of this Report.

88. After careful consideration, we recommend the following reductions in the Survey and Registration Division :—

(a) Abolition of one post of District Surveyor ...	£920
(b) One District Surveyor post to be put into abeyance	£840
(c) Abolition of two posts of Forest Surveyor ...	£987
(d) Abolition of post of Survey Records Officer...	£600
(e) Abolition of one post of Registrar of Titles (at present in abeyance)	Nil
	£3,347

89. In the event of one post of District Surveyor being abolished, we consider that the Secretary of State should be invited to approve the creation of a post of Chief Computer on a scale of £720 by £30 to £840. If the creation of this post is approved, and one of the present computing staff appointed to it, the increase in expenditure would be approximately £70.

90. We consider that it would be desirable that two of the cadets should be appointed to the Local Civil Service as Junior Staff Surveyors—Grade I, and two others as Junior Draughtsmen—Grade II. If these appointments are made, the total increase in the 1936 Estimates would be £200.

91. The proposals in paragraph 88 above, with the exception of (c), were submitted to us by the Surveyor General, through the Commissioner for Local Government, Lands and Settlement, in response to a request for information as to how

a reduction of 5 per cent could be effected in his estimates with the minimum of damage. He regards the proposals in paragraphs 89 and 90 as being an integral part of his economy scheme, and it is for that reason that we recommend their adoption.

92. The exception referred to in the preceding paragraph is the abolition of the two posts of Forest Surveyor. In connection with the Forest Department, we have recommended its reorganization on a basis of maintenance only, i.e. the preservation of, but no increase in, existing assets. Forest Surveyors are not, in our view, necessary for the preservation of existing assets, for we consider that any survey work, which may be essential, can be carried out satisfactorily by the Assistant Conservators of Forests, and we therefore recommend the abolition of the two Surveyor posts.

93. We do not recommend any retrenchment in regard to proposal (b) of paragraph 88, but we consider that the post should be put into abeyance as and when it becomes vacant. When our recommendations become fully effective, the annual reduction in expenditure, apart from pensions commitments, will be approximately £3,917.

Head XVI.—Local Government Contributions.

94. The Basic Road Grants to District Councils will be discussed in Chapter VII of this Report.

95. In regard to Municipalities, we understand that the Nakuru and Eldoret Municipal Boards have agreed to reductions, amounting to £500 and £300 respectively, in the consolidated grants payable to them, and we recommend that these reductions, amounting in the aggregate to £800, be incorporated in the 1936 Estimates. We understand that it is proposed to place the grant paid to Eldoret Municipality on a statutory basis under the Local Government (Municipalities) Ordinance, 1928.

**Head XVII.—Medical Department.*

96. The total cost of this department as reflected in the 1935 Estimates amounts to £199,817. We note, however, that during 1934 the expenditure amounted to £3,319 less than the sanctioned Estimates. It would, therefore, appear that certain further economies are possible without undue loss of efficiency.

* Mr. Hemsted approved the recommendations in this section, but did not have an opportunity of expressing an opinion on the draft Report.

97. In 1936, however, provision will have to be made for over £2,000 on account of normal increments, of which approximately one half will be balanced by the replacement of casualties amongst senior officers by officers at the bottom of the salary scales. The total cost in the 1936 Draft Estimates may be tentatively placed at £200,817.

98. As is pointed out elsewhere in this Report, we are somewhat perturbed at the general scale of salaries in this department. In the Medical Department alone there would appear to be no fewer than twenty-eight officers on basic salaries amounting to £1,000 per annum or more, and no fewer than forty-eight officers whose salary, including hidden emoluments, amounts to over £1,000 each per annum.

99. As the result of very careful inquiries, we have come to the conclusion that the normal total annual expenditure under this Head can, and should, be reduced to a maximum of £194,000 per annum.

100. We have had several interviews with the Director of Medical Services, who has been at great pains to elaborate schemes under which the necessary reductions could be effected. If, however, we were to adopt any of his different schemes in detail, we are satisfied that it would entail definite recommendations for the abolishing of certain services or the closing of certain hospitals, and we are satisfied that if the Director of Medical Services is given greater latitude the necessary reduction can be found without recourse to the adoption of such undesirable measures. In this connection we would refer to paragraph 21 of our Report.

101. The bulk of the savings envisaged will take the form of small reductions in general expenditure the items of which may have to be varied in the light of experience during the course of the year.

102. The one major recommendation which we have to make is that, in our opinion, the time has now arrived when the Child Welfare Service in Nairobi should be taken over by the Nairobi Municipal Council. In this regard our view is shared by the Commissioner for Local Government, the Director of Medical Services and, in his personal capacity, the Town Clerk.

103. If this recommendation is implemented it would mean that the Municipality would bear the full annual recurrent cost of £2,600, which would be a definite reduction on

the Medical Head of Estimates. The Head "Local Government Contributions" would, however, be increased by £1,300 as one half of the cost would naturally be continued to be paid by Government as a contribution to the Municipality in respect of this service on the same lines as contributions paid by Government in respect of other Public Health Services carried out by the Municipality.

104. We are satisfied that, given the power to exercise his own discretion, the Director of Medical Services will be able to effect the total reductions we recommend without endangering the efficiency of the Medical Department.

105. We should perhaps add that as the maximum figure of £194,000 might leave but little margin for unforeseen emergencies such as an epidemic of smallpox, special expenditure in such emergencies would have to be provided for (as incidentally has been the custom in the past) by special warrant.

**Head XVII.—Military.*

106. According to the 1935 Estimates, the cost of Kenya's Military commitments, including the Kenya Defence Force and the Royal Naval Volunteer Reserve, is £81,758. Deducting the cost of these services, as well as that of the King's African Rifles Band, the net cost to Kenya of the Northern Brigade is estimated to be £75,236.

107. This, however, does not include all expenditure on defence for to it must be added the net cost of the Police, which amounts to £127,732. In our opinion the total expenditure on defence is not only disproportionate to the total revenue, but is also in excess of the Colony's actual requirements.

108. We are satisfied that under present circumstances the maintenance of a detachment of the King's African Rifles at Lokitaung in Northern Turkana is advisable, but we have come to the conclusion that the retention of a permanent military force—apart possibly from wireless operators—is, under normal circumstances, unnecessary in the Northern Frontier Province. In arriving at this conclusion, we are influenced by the fact that one of our members, Mr. R. W.

* Mr. Hemsted approved the recommendations in this section, but did not have an opportunity of expressing an opinion on the draft Report.

Hemsted, has served in the area for some time as Provincial Commissioner and that he strongly concurs in this view, as do other Administrative Officers with experience of the Northern Frontier Province. We are also influenced by the fact that we have had it in direct evidence that the maintenance of a military force in Kenya is to be regarded as for purposes of internal security only.

109. It should be realized that in the Northern Frontier Province a very considerable force of Police is maintained and that it is this force, acting in cooperation with the Administration, which undertakes—and successfully undertakes—the whole task of the preservation of internal peace and security in that area. The presence of a military force in the vicinity, however, naturally affects the numbers of police considered necessary and were the military force withdrawn, we consider that a somewhat larger force of police might be required; this situation could certainly be met by a maximum increase of one European officer and seventy-five other ranks at an additional cost of approximately £4,000.

110. Since our present military policy includes the maintenance, in normal times, of a force of one company and a machine gun platoon of the King's African Rifles at Meru and a company at Wajir, it is not surprising to find that in the Estimates under consideration, a sum of no less than £25,000 has to be voted for the Supply and Transport Corps alone. In the light of the above-mentioned considerations, we consider that the maintenance of a military force at these out-stations at so enormous a relative cost in the matter of supply and transport is completely anomalous and should be discontinued.

111. We wish to add here that considerations of the fine traditions and the prestige of this great regiment have influenced us in resisting proposals definitely made and discussed before us for its complete disbandment, and for handing over to the Police, considerably increased by the use of a portion of the savings so effected, the whole task of internal defence and security. After careful consideration, we have come to the conclusion that these traditions are worthy of preservation and that the situation can best be met—at any rate for the time being—by a slight increase in the strength of the Police as mentioned in paragraph 109 above, a reduction in the personnel of the King's African Rifles and their withdrawal from the Northern Frontier Province so that their cost of maintenance may be reduced to a minimum.

112. We recommend therefore that as far as Kenya is concerned the establishment of the King's African Rifles be reduced to one depot battalion stationed centrally—possibly in Nairobi—and consisting of two depot companies and one service company, from which any detachment required for the assistance of the Administration in Turkana would be found. By such reduction and more particularly by a correspondingly very large reduction in the Supply and Transport Corps, we consider that a saving of not less than £20,000 should be effected, against which would have to be offset the cost of increase of the Police (*vide* paragraph 109 above).

113. We understand that the proportions of the expenditure of the Northern Brigade of the King's African Rifles, which are met by Kenya and Uganda, amount to 61.3 per cent and 38.7 per cent respectively and that these proportions were based on the Estimates for 1930, the last year in which provision for the two territories was shown separately. Acceptance of our recommendations would probably entail a revision of the method of computation of the shares of the two Governments and the details of such revision would be a matter for negotiation. Furthermore, the adoption of these proposals would bring into prominence the question of the necessity of the continued maintenance of a brigade staff and would postulate the possibility of further savings in this direction.

114. Mr. Pandya and Mr. Hemsted consider that further economy could be achieved by the abolition of the Kenya Defence Force as at present organized. In this connection they wish to mention that in so far as the Commander of the Northern Brigade had been able to form an opinion since his arrival in the Colony, he inclined to the view that it was of little value as at present constituted. They might, however, be prepared to support expenditure on some form of volunteer force. Mr. Pandya wishes to stress that in his opinion any such force should be recruited on a non-racial basis.

115. In making these recommendations we have not overlooked the fact that conditions on the north-eastern boundaries of the Colony are not normal owing to the tension which exists between Italy and Abyssinia, and that therefore until the frontier position resumes normality, the question of withdrawing the Wajir detachment may have to be deferred. It is, however, questionable whether this abnormal expenditure

should fall entirely on the Colony, in that, from the evidence we have heard we are convinced that the cost of maintaining this advanced post is no longer justified in normal times.

Head XX.—Miscellaneous Services.

116. We propose to touch on only a few of the items for which provision is made under this Head of Estimates.

117. The first such item is "Subsidy to Imperial Airways (Africa) Ltd., £15,000". We recognize that this subsidy is an integral part of the policy of the development of Civil Aviation. At the same time, we note from the Report of the Annual General Meeting held on the 5th of November, 1934, that the Chairman of Imperial Airways, Ltd., is reported to have said :—

"When we commenced ten years ago, we all hoped that this year would see us free, or practically free, of subsidies",

and later :—

"The Board has scrupulously followed the over-riding mandate which the Government gave to the Company in the beginning, which was to use every endeavour to progress towards freedom from subsidies";

while earlier it was said :—

"The balance of profit for the year brought down from the Profit and Loss Account is £78,571 . . . As stated in the Report, the Board recommends the payment of a dividend of 6 per cent, absorbing £29,018".

We therefore consider that there is a strong *prima facie* case for a reduction in the amount of the subsidy, when the present agreement with Imperial Airways expires.

118. The sums provided for guarantees in respect of Railway Branch Lines will be discussed in a separate chapter of this Report.

119. We understand that the main object of the Inter-territorial Languages Committee, namely, standardization, will have been attained by the completion of a revised dictionary early in 1936. We therefore recommend that the contribution paid by this Government to that body should be discontinued as soon as possible. (Cf. paragraph 311 of Expenditure Advisory Committee Report.)

**Head XXI.—Pensions and Gratuities.*

120. The Expenditure Advisory Committee which sat in 1932 was debarred from commenting on this Head of expenditure by their terms of reference.

121. The rapid increase in the vote for pensions and gratuities during recent years is most alarming. During the last ten years expenditure under this head has increased from £76,532 (in 1925) to £209,150 in 1935. During the years of depression expenditure under this head has increased from £113,669 in 1930 to £209,150 in 1935.

122. We naturally appreciate that a considerable proportion of this increase can be attributed to retrenchments during those years; nevertheless, we feel that a system under which, when owing to bad times colonies are forced to make drastic reductions in expenditure, so large a proportion of the reductions effected must be absorbed in pensions and gratuities cannot be considered satisfactory.

123. Although the reduction in the pensions constant from 1/480th to 1/600th which was recently effected is likely to reduce to some extent the continued yearly increases in this vote, the position nevertheless remains most alarming.

124. The imposition of any levy on pensions analogous to the levy on official salaries would, in our opinion, be extremely difficult in practice. The only alternative suggested has been the imposition of some form of specific tax on pensions, but probably the only equitable method of doing this would be through the medium of an income tax, which, however, raises a contentious issue extraneous to our terms of reference.

125. We realize that an enquiry on the question of pensions as affecting the whole of the Colonial Civil Service has recently taken place, but we, nevertheless, consider that the changes which have been introduced will not prove adequate. Probably too many posts in the Colonial Civil Service are made pensionable. Furthermore, in view of the fact that in many cases these officers are thrust upon us by the Colonial Office, and in view of the fact that the scale of salaries and pensions are fixed externally, without, as far as we can see, any regard to the ability of the Colony to meet the cost, we feel that it would not be inequitable were the suggestion made

**Mr. Hemsted agreed that a levy on pensions was impracticable, but did not have an opportunity of expressing his opinion on the draft Report. He expressed opposition to a reduction in the pensions constant.*

to the Imperial Government that some proportion of the income tax collected in England on pensions paid out of Colonial funds be returned to the Colonies concerned as an ex gratia grant.

126. We recommend that representations should be made to the Imperial Government with a view to instituting further enquiries as to :—

- (a) the inauguration of a Contributory Pensions Scheme for the whole of the Civil Service;
- (b) the revision of the bases of assessment of pensions;
- (c) the proportion of pensionable officers employed; and
- (d) the feasibility of some refund being obtained on the lines suggested above.

127. We favour in principle the first alternative, which has already been recommended by other committees which have inquired into this matter in Kenya, but feel that any isolated action on the part of this Colony in adopting a contributory pensions scheme may be found to involve many difficulties.

128. We consider that some further reduction in the pensions constant would not be inequitable and would suggest that the pensions constant for future entrants should be fixed at 1/720th of the pensionable emoluments. We are of opinion that a pension based on this constant is not ungenerous in that it will provide an officer, who has had thirty years' service, with an annuity amounting to half his maximum salary.

129. We also recommend that for future entrants to the Service no addition should be made to pensionable emoluments on account of house allowance.

130. We consider that it should continue to be optional rather than compulsory for officers to commute a portion of their pensions, and see no reason for the payment of an enhanced pension in the case of invalidment of an officer from the Service.

Head XXIV.—Printing and Stationery.

Part I—Draft by Major Cavendish-Bentinck, Sir Robert Shaw and Mr. Pandya.

131. The total expenditure allocated under this Head amounts to £28,311, of which the Government Printer estimates that some £15,000 may be recovered during 1935 from the Kenya and Uganda Railways and Harbours and from the

requirements of the Posts and Telegraphs Department for stationery consumed in and for printing done on behalf of neighbouring territories. In other words, it is claimed that Government printing is being carried out at a cost of about £13,000 per annum.

132. We admit that the above figures include the cost of stationery used by all Government departments. We are, however, not prepared to admit that the revenues referred to in paragraph 141 below in Mr. Hemsted's draft on this department can legitimately be regarded as a true reduction in costs because although admittedly reimbursements are made by the Railways and Harbours and by the Posts and Telegraphs Department, such reimbursements are in fact contributed by the public.

133. We are, furthermore, by no means satisfied that the system of costing adopted by the Government Press is a sound one, nor do we think it improbable that meticulous enquiries might disclose the fact that in some cases these departments were being over-charged in that in the course of our enquiries we obtained costing sheets of the work done by the Government Press for other departments and we have obtained quotations from commercial firms for similar work, which latter quotations were definitely lower than those submitted by the Government Press. We endeavoured to follow up these lines of enquiry but the obstructive attitude taken up by the Government Printer rendered our efforts in this direction abortive.

134. We, therefore, consider that it is no longer economical to retain the Government Press on its present scale and we consider that the time has now arrived when it would be more economical to put out some of the work at present done by the Government Press to contract.

135. It has been argued that much of the work at present carried out by the Government Press could not be put out to contract owing to the fact that local commercial printing firms are not equipped with suitable machinery. We have followed up this line of argument but do not agree with this contention. Many of the local firms are equipped with very up-to-date machinery and were Government contracts obtainable local firms would provide themselves with any necessary additional specialised machinery which might be required.

136. Furthermore, commercial firms are not handicapped by having to provide leave pay and pensions for their staffs, as is the case with many employees of the Government Press.

137. Two of us, therefore, recommend that a reduction of £5,000 be made in expenditure under this Head and that a small amount of work should, as an experiment, be put out to contract with a view that should such an experiment prove successful an increased amount of work could be put out to contract year by year and that the Government Press could gradually decrease.

138. As a further measure of economy we agree with the recommendations made in paragraph 142 of Mr. Hemsted's draft on this department.

139. Mr. Pandya, while agreeing that a small amount of work should, as an experiment, be put out to contract, is not prepared to endorse the definite recommendation in paragraph 137 that expenditure should be reduced by £5,000.

Part II.—Draft by Mr. Hemsted.

140. In making my recommendations for immediate reductions under this head of Estimates, it has been borne in mind that the department is, to some extent, a revenue-producing one, in that a considerable amount of work performed on behalf of the Railway Administration, Local Native Councils, and joint services is charged for, and the receipts credited to revenue. It is true to say that the net cost of the department has materially decreased in recent years on account of such revenue; in 1926 it amounted to £20,235, while in 1934 it had gone down to £12,396.

141. It is also the case that the stationery used by all Government departments, amounting to £3,500 in the 1935 Estimates, is a charge on the votes of the Government Press, and this factor tends to give the impression that expenditure on this department, as a printing department, is greater than is actually the case. Taking revenue and the cost of stationery into account, the estimated net cost of printing for Government in 1935 is £9,811. I am satisfied that Government pays very cheaply for the services rendered by this department.

142. I feel that the post of Government Printer is somewhat overpaid at a salary of £1,000 per annum, and I recommend that the scale should be reduced to £720 by £30 to £840. I also consider that the post of Assistant Government Printer should be abolished. In making this recommendation I am influenced by the fact that, when either the Printer or his Assistant is absent on leave, the other can carry on satisfactorily single-handed. Under the reorganization which I contemplate, the foreman would act as Government Printer when the substantive holder of the post is absent from the Colony.

143. I have experienced some difficulty in framing any concrete recommendations regarding the Government Press, as the Printer was convinced that no further economy was compatible with efficiency.

Head XXV.—Prisons Department.

144. An increase in crime is a natural concomitant of a financial depression, and the depression of the past few years has been no exception. Efforts to effect economies in this department have been frustrated by the rapid rise in the prison population, which has necessitated more and more expenditure in several directions, notably on food. The real road to economy is a reduction in the prison population.

145. We note that provision exists, in Item 20 of the current Estimates, for £630 on account of the wages of detention camp overseers. The work performed by detainees at all district headquarters has enabled the Provincial Administration to reduce considerably the vote for station hands, and all detainees are in fact under the direct control of the District Commissioner, and work as extra station hands. We therefore consider that this item should be deleted from the Prisons Estimates, and any necessary supervision paid for from Provincial Administration votes.

146. Major Cavendish-Bentinck, Sir Robert Shaw, and Mr. Pandya are of opinion that no increase in the appropriation for the Provincial Administration for this purpose should be made, while Mr. Hemsted, although he recognizes that, owing to the drastic economies in the cost of Administration which have been effected during recent years, such a course will probably be rendered impracticable, expresses the hope that any necessary increase will be as low as possible.

147. Item 59 of the Estimates, "Expenses of Administration of Juvenile Offenders Ordinance, £150," provides for remuneration to certain probation officers, and was inserted in the Estimates in consequence of Recommendation No. 2 of the Committee on Juvenile Crime and Kabete Reformatory. We are of the opinion, which is shared by the Commissioner of Prisons, that, for the present at any rate, the functions of probation officers can be performed reasonably adequately by the employers to whose care the juveniles are committed on discharge. We therefore recommend deletion of this item.

148. The estimates for approved schools provide for a Class II Approved School at Eldama Ravine and for a Class III Approved School at Kabete. Actually, owing to difficulties

connected with buildings at Eldama Ravine, the Class II Approved School has not been started, and, as a temporary measure, the two schools have been combined at Kabete.

149. After discussion with the Commissioner of Prisons, we are of opinion that the proposal for a school at Ravine should be dropped, because of the general unsuitability of Ravine for such a school. We understand that negotiations are proceeding for the acquisition of a suitable area of land, with adequate buildings, in the vicinity of Nairobi, for a sum of £800. Should this proposal prove desirable and practicable, we recommend acquisition of the property for that sum, and the removal of the Class II portion of the present Kabete School there.

150. Under the present arrangement, savings on the Estimates in respect of approved schools will amount to approximately £1,200 in a full year. We understand that the additional cost of a Class II Approved School at the place referred to in the preceding paragraph would be not more than £570 per annum. We recommend :—

- (a) That the existing combined school at Kabete be continued for the time being;
- (b) That, should the proposal referred to in paragraph 149 above prove practicable, a separate Class II School be started.

In the event of recommendation (b) being adopted, the total saving on the present Estimates should amount to at least £630 per annum.

151. In view of the increasing cultivation of foodstuffs by prisoners, we consider that the vote for prisoners' and detainees' food can be reduced from £12,000 by £1,000 to £11,000.

Head XXVII.—Public Works Department.

Part I.—Draft by Mr. Pandya and Mr. Hemsted.

152. We believe that there is considerable misapprehension among the general public regarding the cost of this department; the general opinion being that the Colony has a department costing £82,671,* which carries out works costing £114,752,* and that these figures show the cost of overheads

*These figures represent the total appropriations in the Estimates for "Public Works Department" and "Public Works Recurrent" respectively.

as being out of all proportion to the cost of the works. We have gone carefully into the organization of the department, and, so extensive and so little understood are its ramifications, that we feel that it is desirable, before framing any concrete recommendation, briefly to state the position.

153. In addition to expenditure from the three Public Works Heads in the Estimates, the department designs and carries out works and performs services provided for under Loan, Colonial Development Fund, and various extra-departmental sources, such as Local Native Councils, Miscellaneous Services, Famine Relief Allotments, etc.

154. The expenditure which is likely to be incurred by the department during 1935 may be divided up as follows :—

Public Works Department	...	...	£72,177
Various Water Supplies	...	...	10,494
Public Works Recurrent	...	...	114,752
Public Works Extraordinary	...	...	11,640
Loan Works	...	...	40,000
Colonial Development Fund Works	...	...	30,000
Extra-departmental Sources	...	...	16,800
			<hr/>
			£295,863

The estimated expenditure from Loan Funds during 1935 is considerably below the normal. The revenue collected by the department is estimated at £57,124.

155. It thus might be said that, in respect of works costing £223,686, overheads amounted to £72,177. This is not so, because in addition to the survey, design, quantity surveying, construction and maintenance of works which are carried out directly under the department's supervision, the department is concerned with a number of services on which there is little or no direct expenditure, but which in the aggregate take up a large proportion of the time of the staff of the department and necessitate additional travelling. The cost of these services is borne by the Personal Emoluments and Other Charges sub-heads of the departmental estimates. They consist of :—

- (1) The administration of the Water Law of the Colony, including hydrographic survey.

- (2) The administration (or part administration) of various technical laws, and advice on proposed bills and rules under Ordinances.
 - (3) The administration of engineering matters in towns not under local government.
 - (4) Advice on engineering projects in towns under local government, scrutinizing proposed by-laws for municipalities, and examining works on which Government grants are expended by municipalities,
 - (5) Surveys, estimates, designs, reports, etc., for projects which are either not proceeded with or which, if proceeded with, are carried out by other agencies.
 - (6) The administration of the collection of revenue amounting to approximately £57,000.
 - (7) Valuation of premises for various purposes, and general administration of Government housing and the house allowance regulations.
 - (8) Service on and technical advice to boards and committees by various officers.
 - (9) Advice to members of the public on engineering matters, such as dams, cattle dips, strength and suitability of materials, water and drainage projects, etc.
 - (10) Government transport in Nairobi, Kisumu, and elsewhere.
 - (11) Surveys and advice connected with aerodromes and aviation, together with the maintenance of the principal aerodromes.
 - (12) The administration of the furniture regulations of Government and the supply of stores to other departments.
 - (13) Advice to Government on important matters of an engineering or building nature as they arise, including such surveys, designs, estimates and reports as will suffice to enable the matters to be apprehended.
 - (14) Surveys of roads for future construction, either by Government or by Local Native Councils.
156. We do not wish, however, to convey the impression that we consider that expenditure on the department is not susceptible of any reduction. We have merely sought briefly to explain its activities.

157. We understand that, in the ordinary course of events, the following reductions will materialize in 1936:—

Surveyors	...	...	...	...	£400
Transport Officer	...	...	...	...	350
Assistant Engineer, Central Workshops					300
Passages	...	...	...	...	854
					<hr/>
					£1,904
					<hr/>

and we recommend their incorporation in the Estimates.

158. Consideration of loan proposals as well as the preparation of designs for, and control of the execution of, loan works take up a considerable proportion of the time of the Director of Public Works, the Superintending Engineer, the Chief Accountant, the general clerical staff, as well as certain Executive Engineers and their local staffs. We are satisfied that the cost of the time and incidental expenses of revenue officers working on loan works is considerably more than is represented by the reimbursement from loan of the salaries of the Architect, Quantity Surveyor, Draughtsman and one Assistant Engineer, amounting in 1935 to £2,100. The Director of Public Works is fully satisfied, and we endorse his opinion, that the value of the services rendered amounts to not less than 6 per cent of the expenditure on loan works during 1934, which was £68,286. We therefore consider that the approval of the Secretary of State should be invited to an increase in the reimbursement from loan by at least £2,000. We are of opinion that the emoluments of the Superintending Engineer and the salaries of two European clerks should, for the time being, be reimbursed from loan funds as a *quid pro quo* for the general use of the revenue staff. The position should be reviewed as and when there is a material change in the programme of loan works.

159. We recommend that the staff whose salaries are so reimbursed from loan should appear in Estimates separate from the main Estimates of the Department, instead of their position being explained by footnotes.

160. The sum of £100,000 approximately will be expended during the next two years on Colonial Development Fund works, possibly supplemented by loans or grants for other works, such as the Perkerra irrigation scheme, Eldalat meat factory, etc. In our view, the cost of the administration of these works by the revenue staff, consisting of investigating,

estimating and comparing the relative merits of projects, designing the works, clerical work, accounting and general control of execution (apart altogether from the cost of individuals who may be employed on the execution of the work) will amount to at least 5 per cent of £100,000, or, say £2,500 per annum, for the next two years on the works already sanctioned out of the Colonial Development Fund. We are of opinion that it is proper that this sum should appear in Estimates as a reimbursement from the Colonial Development Fund in respect of the services of Public Works Department staff.

161. We have examined the branch of the department which is known by the somewhat high-sounding title of "Central Workshops and Timber Seasoning Branch", and are satisfied that it is in fact a misnomer. The so-called "Central" Workshops are little more than the divisional workshops for the Nairobi Division, in which there is a timber-seasoning plant where timber is seasoned, largely for private firms. The Assistant Engineer (Item 78 of the 1935 Estimates) automatically disappears in the 1936 Estimates. In addition, we recommend that the post of Timber Seasoning Operator should be abolished, any necessary supervision being exercised by the foreman in charge of the workshops, and that any other expenses be charged to the particular work which is being carried out. We are further of opinion that Item 85, Timber Seasoning Expenses, should be reduced to £250, to cover the cost of seasoning timber for private firms which is paid for and the proceeds credited to revenue. This "branch" should not, in our view, continue to be shown separately in Estimates.

162. We understand that one of the inspector of water supplies is engaged primarily on the maintenance of bore-hole installations in native reserves. This work can, in our opinion, be reasonably well performed by a foreman, and we therefore recommend the abolition of one post of Inspector of Water Supplies.

163. The Director of Public Works has, at our request, submitted proposals for reductions in stores expenditure amounting to £1,600. These proposals postulate the abolition of the sub-stores at Mombasa and the administration of allocated stores by the Executive Engineer and Divisional Accountant. They also connote the divestment by the department of its responsibility in respect of the administration of the furniture regulations, and assumption of those responsibilities by Administrative Officers throughout the Colony in

respect of their individual districts. They also have in mind the abolition of the store for the storage of officers' effects while on leave, and the abandonment of all store-keeping work for other departments of whatever character. We cannot recommend their adoption *in toto*, but we consider that a reduction in expenditure amounting to £600 per annum should be effected either by the retrenchment of the Chief Storekeeper or a Senior Storekeeper or by some reorganization in the stores administration.

164. The total effect of our recommendations will be a reduction in the Estimates of the department by approximately £8,015.

Part II.—Draft by Major Cavendish-Bentinck and Sir Robert Shaw.

165. As has always been the case in the past no department defended its expenditure more vigorously than the Public Works Department during the course of our investigations. We consider that the reductions recommended by the other members of the Committee are inadequate, and we therefore find ourselves unable to subscribe to many of the observations and comments in Part I.

166. We note that in Part I of this section, the activities performed by the Public Works Department have been treated as a whole. We do not consider this method satisfactory in that it draws a convenient fog which renders meticulous enquiry extremely difficult.

167. We also note the imposing list of services, on which it is alleged there is little direct expenditure (other than time of officers and travelling), which is tabulated. We fear, however, that this list leaves us unimpressed.

168. We propose shortly to comment on :—

- (a) The Expenditure shown under Head XXVII—"Public Works Department".
- (b) The Public Works Department's activities in connection with Loan Works and Colonial Development Fund Works.
- (c) The Expenditure shown under Head XXVIII—"Public Works Recurrent".
- (d) On the various services performed by the Public Works Department which it is alleged cannot be included under any of the above Heads, but on which little or no direct expenditure takes place other than a

large proportion of the time of the Public Works Department staff and "travelling". (Similar services are of course rendered by every Public Works Department).

HEAD XXVII.—Public Works Department.

169. We consider that expenditure under this Head is more than the Colony can afford, and that drastic economies could and should be effected in various directions. The possibility of effecting such economies has been demonstrated in Part I of this section. It is contended in Part I of Chapter VII that there is redundancy and overlapping as regards the work of the Public Works Department and of District Councils etc., and whilst agreeing with this contention, we find ourselves at variance with the conception of the cause of such redundancy.

170. During the time of the Colony's infancy, before District or Local Native Councils existed, and before reputable firms of builders, contractors, architects, quantity surveyors, etc. had established themselves, it was no doubt necessary to maintain a comprehensive department which could supply all these services. Times, however, have changed, and the true cause of the redundancy which exists to-day is that Government has never availed itself of the opportunity of reducing the size and cost of the department provided by the normal growth and development of the Colony. We therefore consider that substantial further economies in staff can and should be introduced by delegating work to District Councils and Native Councils, as recommended elsewhere in this Report, by giving out considerably more work to contract, and by handing over to Provincial Commissioners the responsibility for the maintenance and minor improvements of public buildings. The Provincial Commissioners would be provided with the necessary funds on allocation requisition, a system which has been tried in Nakuru and parts of the Rift Valley, and has proved itself thoroughly satisfactory and economical.

171. Were Government, acting on the foregoing lines, to take the opportunity of drastically re-casting the organization of the Public Works Department, we contend that very large savings could be effected under storekeeping, accounting and road staff, etc., as the department would be relieved of responsibility for a very large proportion of the expenditure which is now taking place on roads, and the up-keep of public buildings. In support of this contention, we would refer to paragraph 265 of this Report, and to the statement made by

the Director of Public Works in 1926, to the effect that were he relieved of responsibility for the expenditure of the sum of £53,086 on roads, he could make a saving in his department of some £15,000. Since our present proposals would involve, as pointed out above, relieving the Public Works Department of a very similar or even greater expenditure, it is only reasonable to suppose that a saving could be made similar to that visualized by the Director in 1926. We may reasonably put this figure at not less than £10,000.

172. Before making any more definite recommendations with regard to this Head of expenditure, we must elaborate our arguments regarding Items B, C, and D, of paragraph 168. Our final comments with regard to Head XXVII will be found in paragraph 193.

Loan Works.

173. We note that there is no method in the Estimates of differentiating between the officers (or part time of officers) engaged on Loan Works or on work financed by the Colonial Development Fund, and officers (or the proportion of officers' time) taken up by normal routine duties. This we consider a thoroughly unbusinesslike method of accounting and costing. Furthermore, it is in direct opposition to the recommendations made in the Report of the Public Works Department Committee of Enquiry which was published in 1932.

174. This system, furthermore, tends to permit of the retention of possibly surplus officers on the plea that although reductions have had to be made in the overhead costs of the Public Works Department, nevertheless the services of such officers are required for Loan Works and Colonial Development Fund Works. In other words the Public Works Department whilst appearing in the Estimates as having been cut down is apt to bulge out in other directions unperceived, a tendency which has rendered any effective curtailment of expenditure in the past a matter of some difficulty. As an example see paragraph 158.

175. We have made inquiries as to the proportion of work done by individual officers and the costs incurred on this work, but the Director found great difficulty in giving us any figures, and such figures that he did give us were more in the nature of a guess than claiming any degree of accuracy. We would refer in this connection to paragraph 155 of Part I of this section and would suggest that the very wording of this paragraph tends to show how superficial has been any proper examination of the true cost of these services in the past.

176. We consider that precise and specific figures regarding Loan Works and works financed by the Colonial Development Fund should in future be shown quite separately in the Estimates. We would further point out that a considerable sum of money (over £9,000) is contributed by Native Councils in payment of services rendered by the Public Works Department. This figure does not as far as we are aware appear in the Estimates; whereas it should, of course, be added to the total cost of the department as appearing in the Estimates. This item should, in our opinion, also appear as a separate item in the Annual Estimates in order that expenditure under this Head can be properly checked by the Legislature in the interests of the natives.

177. Before leaving the subject of Loan Works, we wish to stress that in our opinion all major works should be put out to contract. Plans, specifications and bills of quantities should also be put out to tender. During recent years conditions in Kenya have changed nor can they be compared to conditions existing in other colonies with no white settlement. In Kenya now there are a number of competent private architects and quantity surveyors, as is proved by many of the very excellent buildings which have been erected by private enterprise. We need only quote as examples: Shell House, The Standard Bank of South Africa, The National Bank of India; there are many others.

178. At present the Public Works Department shows a pronounced disinclination to placing contracts, etc., to tender and such contracts as are placed to tender are subjected, in our opinion, to unnecessary and over-meticulous supervision. There should be a list of Government contractors, on which list only the names of approved contractors and architects and quantity surveyors should appear. Work carried out by such persons should not require the amount of supervision which might be necessary when contracts are given out to less reputable contractors.

179. We appreciate that the Director of Public Works argues that contractors cannot be trusted and the work of quantity surveyors and architects in private practice has not been found altogether satisfactory. The contention we rebut and are in a position to prove that it is not justified. As an example of what we mean, the examination of the cost of the Law Courts will perhaps be illuminating. We think it not improbable that a calculation made on the lines of adding architect's fees to the contract price, together with quantity

surveyor's fees based on the London method of assessment and subtracting such total from the final cost of the Law Courts would disclose that a very large additional sum indeed was absorbed in overheads (i.e. supervision), which sum would probably prove still larger were a commercial system of accounting adopted as opposed to the Government system. The supervision of buildings put up by private enterprise is normally carried out by the architect, and we do not think that a comparison between such buildings and Government buildings would show that buildings put up by private enterprise were in any way inferior to buildings erected under supervision of the Public Works Department.

180. Both the Expenditure Advisory Committee and the Committee of Enquiry on the Public Works Department have made recommendations on precisely these lines and have expressed conviction that the putting out of practically all the work to tender would, under present conditions, show very large economies in the expenditure of the Public Works Department.

Head XXVIII—Public Works Recurrent.

181. The main items of expenditure under this Head are :—

- (1) Maintenance and improvement of roads and bridges.
- (2) Maintenance and minor improvements to public buildings.
- (3) Rents of Offices and Houses and House Allowance in lieu of Quarters.

182. We refer to item 1 of the foregoing paragraph at some length under our remarks under "Local Government in Rural Areas" (*See Chapter VII*). As we are, however, at complete variance with the other members of the Committee regarding the manner in which economies can be made under this Head, we must at the risk of reiteration also in this Chapter allude to certain statements made, and figures given, by the Director of Public Works, in that the conclusions come to by other members of the Committee in Part I have been based on such figures and statements, whereas we find it difficult to place complete reliance thereon.

As an example, the Director amongst other remarks has stated :—

- (a) Under Public Works Department the average mileage operated by one foreman is more than 286 miles.

- (b) That were the activities of District Councils to be absorbed by the existing Public Works Department no additional travelling would be necessary on the part of the Public Works Department executive engineers.
- (c) That no additional overhead expenditure would be incurred by the Public Works Department in taking over these roads.

183. With regard to these statements we would make the following comments :—

With regard to (a) above we presume that this figure is obtained by dividing the total mileage of road of the Public Works Department by the number of foremen employed, but we contend that such a figure has no relation to facts, as is proved by the circumstance that in 1933 two Public Works Department foremen were employed on the main roads in the Nakuru Area, say, 150 miles, or 75 miles each.

With regard to (b) above we consider that even if no additional travelling were necessitated on the part of the Public Works Department engineers, we feel on the assumption that all such engineers are economically employed to-day they could not carry out adequate supervision and attend to the necessities of all District Roads while on other works. If they can, then there must be some redundancy to-day.

With regard to (c) above we find it very hard to believe that no additional overhead expenditure would be incurred by the Public Works Department. Surely an increased expenditure of approximately £31,000 will necessitate additional clerical work. If the existing staff is sufficient to cope with this very considerable work is not the Public Works Department at present over-staffed?

184. We consider, as we point out elsewhere, that very material savings could be effected in Public Works Department expenditure by a fusion of existing District Councils and by allotting to such enlarged Local Authorities all the roads in the settled areas and all such roads leading therefrom which could be handled by such Local Authorities in adjacent Native Reserves.

185. With regard to the remaining roads we consider some definite road programme is long overdue and some system should be evolved whereby possibly such reduced sums as are

available are expended mainly on roads of importance and that the public should be informed of what are considered main roads and where they lead to. It is high time more reasonable road communications should exist between Kenya and neighbouring territories.

186. We feel that at present moneys are sometimes expended on roads in haphazard fashion and possibly in some cases on roads which are of little practical utility. This might possibly be obviated by giving to the Central Roads and Traffic Board a greater measure of control over general road policy. We, of course, appreciate that from time to time construction of permanent new roads in certain areas becomes an urgent necessity, as for example, in the gold mining areas at the present time, but we consider that such roads should be constructed either by the aid of the Colonial Development Fund or by extraordinary expenditure specially allocated for the specific purpose.

187. Under such a system moneys expended on new roads would be shown separately, and the period of time for the construction of such roads could be limited so that the public may be made aware of what such special roads are going to cost, and will know that when the work is completed such extraordinary expenditure will automatically cease.

188. By the adoption of the foregoing principles we believe that a saving of 5 to 7½ per cent could be made under the combined items "Maintenance and Improvement of Roads and Bridges" and "Basic Road Grants to District Councils".

"Maintenance and Minor Improvements to Public Buildings."

189. We consider that by giving where possible more work out to contract and by delegating to Provincial Commissioners further powers in this respect a saving of at least 10 or 15 per cent could be made both under this Head and under that portion of Head XXVII which meets the cost of staff employed on these services.

190. With reference to Rent of Offices and Houses and House Allowance in lieu of Quarters, we draw attention to paragraph 65 of the Expenditure Advisory Committee's Report, which reads as follows: "We have recorded our recommendation that the right to free quarters, or a house allowance in lieu thereof, should be discontinued and that in regard to future entrants to the Service house allowance should be regarded as consolidated in the salary at which an appointment is offered. We recommend further that officers at

present serving in the Kenya Service should on promotion be offered the higher post at a salary in which house allowance is consolidated".

191. We are aware that this recommendation has been turned down by the Secretary of State but we consider the arguments in favour of a change of policy in this matter are unanswerable, and we therefore see no reason for regarding the Secretary of State's decision as final or unalterable.

192. With regard to the *various services rendered by the Public Works Department*, of which an imposing list is tabulated in paragraph 155, we consider that the expenditure involved is exaggerated.

193. To summarise, on the assumption that our recommendations in this section and in that which we submit on the "Local Government and District Councils," are accepted we consider that a reduction in the expenditure of the Public Works Department, Head XXVII, should be made of not less than £12,000 and we also consider that reductions in expenditure under Public Works Recurrent, Head XXVIII, and on Head XVI, Local Government, Item 15, Basic Road Grants, could be made amounting to 5 to $7\frac{1}{2}$ per cent or at least £7,290, making a total minimum saving of £19,290 in all.

194. In conclusion we wish to note that we consider the water works accounts shown in Appendix O of the 1935 Estimates are definitely misleading in that no provision is made for a Renewals Fund contribution as is done in the accounts of any water works controlled by a Local Authority. We consider that, as soon as possible, proper provision for a Renewals Fund should be made annually and that such sums should be lodged in a special account with the Treasury. The present system under which so-called profits are taken by Government and treated as General Revenue is utterly unsound. Furthermore, we are not satisfied that further economies could not be effected in the overheads of the water works which are at present administered and kept in repair by the Public Works Department.

Head XXIX.—Registrar General's Department.

195. We have re-examined the proposal, put forward by the Expenditure Advisory Committee, to combine this department with the Legal Department, and after full consideration, we are satisfied that the proposal is impracticable. The two departments have nothing in common. The Legal Department is responsible for all legislation, for criminal prosecutions

and for all suits in which the Crown appears; further, it is the department to which all other departments refer for legal advice. The Registrar General is, as his name implies, the officer responsible for the registration of practically everything which requires by law to be registered, and has in addition executive duties as Public Trustee and Official Receiver.

196. We note, however, that there are at present both a Registrar General and an Assistant Registrar General, and that either can administer the department during the absence of his colleague on leave. The work performed by the department is largely solicitor's work, and we are of the opinion that the post of Assistant Registrar General should be abolished, and that, when the Registrar General is absent on leave, Government should make arrangements, either through the secondment of an Administrative Officer to act as Deputy Registrar of the Supreme Court or otherwise, for the administration of the department to be undertaken by the Registrar of the Supreme Court or by some other suitably qualified officer.

197. We also are of the opinion that, on the retirement of the present holder, the salary scale for the post of Registrar General should be reduced to £720 by £30 to £840 by £40 to £920, which is the same as that enjoyed by the Registrar of the Supreme Court, an officer who carries out somewhat similar work. In view of the fact that the retirement of the present holder has been deferred, we consider that the early adoption of this recommendation would not inflict any undue hardship.

198. We also recommend the abolition of one post of non-European clerk in the bankruptcy section, and the appointment of a European learner to fill the existing vacancy on a lower scale than that contemplated in the 1935 Estimates. We shall, also, in dealing with the Statistical Departments, make a recommendation which will have the effect of reducing expenditure in this department by £534.

199. The effect, during 1936, of our recommendations would be :—

	£	£
Registrar General	1,050	
Assistant Registrar General	720	
Non-European Clerk	100	
Adjustment in Salary of European Learner	63	
Registration of Births, Marriages and Deaths ..	534	
	<hr/>	2,467
<i>Less</i> Emoluments of Registrar General on New Scale ..	720	
	<hr/>	Net Saving .. £ 1,747

200. Mr. Pandya dissents as regards the proposed reduction of expenditure on the Bankruptcy section, on the ground that a small saving in this section—which would reduce the attention at present being given to bankruptcy matters—is not desirable, as in his opinion it is very necessary from the point of view, and in the interests of, the commercial community, that proper attention should be given to bankruptcy matters.

Head XXXI.—Secretariat and Legislative Council.

201. We do not consider that any material modification of the present Secretariat organization is possible under the present system of Administration. The real road to economy in this office is some reorganization which will have the effect of reducing the volume of work with which the office has to deal. The European Elected Members have the outline of such a reorganization in mind, and the matter will be elaborated in Chapter IX of this Report. The only recommendation for immediate economy which we have to make is the abolition of one post of European clerk. This recommendation will necessitate provision in the Estimates for a temporary relief from time to time when leave movements demand it.

202. Certain reductions can, however, be made in respect of the Legislative Council. The rate of allowance at present paid to unofficial members of the Council is possibly unduly generous, bearing in mind the financial condition of the Colony, and we recommend that it be reduced to an attendance allowance of £1, together with a subsistence allowance of Sh. 15 in respect of each night the member is necessarily absent from his home for the purpose of attending meetings of the Executive or Legislative Councils or Committees thereof. We understand that this proposal should effect a reduction in expenditure of approximately £750 in a full year.

203. The rent at present paid for the Memorial Hall is £200 per annum, a figure which seems to us to be on the high side. We recommend that Government should enter into negotiations with a view to obtaining a reduction of £50 per annum.

204. Unofficial Members of the Council are provided with Railway Card Passes, which enable them to travel free of charge on the Kenya and Uganda Railway. The Railway Administration charge the Government a sum of £25 per annum in respect of each of these passes. We feel that, as

the prosperity of the Colony is intimately connected with that of the Railway, and as many of the problems which affect the one in some degree affect the other also, it would be reasonable that such card passes should be issued by the Railway Administration to Members of the Legislative Council free of cost.

Head XXXII.—Statistical Departments.

205. We have given careful consideration as to what form of reorganization should be effected in these departments, and we are unanimously of opinion that it is most desirable that the system of Native Registration should remain. After hearing the evidence of the Acting Principal Labour Inspector and of various Administrative Officers, we are satisfied that the system is definitely beneficial alike to the native and to the non-native communities.

206. Although, as we have said, we feel sure that the Native Registration system should remain, we are unanimously of the opinion that the Registration of Domestic Servants should be discontinued. This system has not fulfilled the objects for which it was inaugurated and has conferred little or no benefit on either the native or the non-native community. In regard to natives, the domestic servant who is dismissed has no strong protection against a bad testimonial written by an employer in a fit of temper. In regard to non-natives, the scheme was designed to protect the employer against engaging a criminal. The application of the Ordinance to the more important towns and some of the more closely settled areas has had the effect of driving the undesirable native to seek employment in more remote districts, so that employers on lonely farms have been endangered by the application of the Ordinance to other areas. The Native Registration system is, in our opinion, as adequate a safeguard as can be devised, in that inquiries as to the bona fides of prospective servants can always be made at the office of the Chief Registrar of Natives, and definite replies to such inquiries can be given at once. We therefore recommend that an early opportunity be taken to repeal the Registration of Domestic Servants Ordinance.

207. The total cost of the departments, according to the 1935 Estimates, is £12,503. Of this, the sum of £1,460 represents expenses in connection with the B.E.A. Meteorological Service, to which this Government is committed. This

leaves a balance of £11,043. From this must be deducted a total sum of £924, which has been transferred to the Treasury for Hollerith Services, leaving £10,119. Although, however, provision for the Registration of Births, Deaths and Marriages appears in the Registrar General's Head of Estimates, the work is actually carried out under the supervision of the Chief Registrar of Natives and not by the Registrar General or in his office. For practical purposes, therefore, the Registration of Births, Deaths and Marriages Section must be regarded as a part of this department and its cost (£534) added thereto. This gives as the estimated total cost of the Department a figure of £10,653.

208. At our request the Chief Registrar of Natives has suggested a reorganization, which will effect a reduction in expenditure of £2,170. This reorganization would group the following services : Native Registration, Finger Prints, Compilation of Migration Statistics, and Registration of Births, Deaths and Marriages. It would entail the discontinuance of all work by this department in connection with the Judicial Department's criminal statistics, the Agricultural Census, and Cost of Living Statistics. As this work is carried out on the Hollerith machines, which are almost entirely used for Treasury purposes, we are of opinion that the departments concerned should make arrangements with the Treasury for continuance of this work, if it is considered necessary, and we recognize that some small addition to the staff of the Treasury may be required.

209. We recommend that a trial be given to the scheme, and we subjoin Draft Estimates for the combined department :—

PERSONAL EMOLUMENTS

	£
Chief Registrar of Natives	750
Assistant Registrar of Natives	520
European Clerk..	280
6 Asian Clerks	1,580
11 Asian Finger Print Clerks and Learners	1,728
Migration Clerk (Asian)	162
Registration of Births, Deaths and Marriages Clerk	300
36 African Clerks, Learners and Supernumeraries	1,793
Office Boys	32
 Total Personal Emoluments	 7,145

OTHER CHARGES

	£	£
Passages	217	
Electric Light	9	
Registration and Finger Print Material	90	
Travelling Allowance	65	
Local Transport and Travelling	150	
Conservancy Fees and Water Rates	33	
Uniforms	3	
Carriage of Goods	30	
Contingencies	48	
Telephones	35	
Purchase of Metal Containers	643	
Hollerith Cards and Material	15	
 Total Other Charges	 1,338	
 TOTAL	 £ 8,483	

The saving would be divided in Estimates as follows :—

	£
Registrar General's Department	534
Statistical Departments	1,636
 TOTAL .. £ 2,170	

210. In connection with the scheme, the Chief Registrar of Natives observes : "It would inevitably mean less control being exercised, owing to the loss of one European officer, over Native Registration matters".

211. The posts of Deputy Registrar of Domestic Servants, two Asian clerks (Registration of Domestic Servants), and two other Asian clerkships would be abolished.

Head XXXIII.—Trade and Information Office.

212. We give below a table showing the amounts of the contributions from the various Dependencies concerned :—

	£
Nyasaland	206
Zanzibar	387
Uganda	722
Tanganyika	722
Northern Rhodesia	722
Kenya and Uganda Railways	825
Kenya Government	1,186
 £ 4,770	

213. The Kenya Government and the Kenya and Uganda Railways each support a separate representative and provide them with special sums for settlement and tourist publicity work to a total of £4,836. Of this sum, £672 is paid to the Central Section for clerical services, making a total contribution to the Central Section, from Kenya and the Kenya and

Uganda Railways, of £2,683, a sum which appears to be out of proportion to the contributions made by other territories.

214. The Committee is informed that Government has already expressed the view that it is not fully satisfied that the Central Section could not be administered more economically or that the special contribution of £672 in respect of Records Staff receives full return in services, and has asked that an inquiry should be made into the possibility of effecting economies in the Central Section by better coordination of the work of the office generally. We trust that the results of this inquiry will be forthcoming in the near future and that they will lead to definite economy. We feel strongly that a reduction of not less than £600 should be made in the combined Kenya and Uganda Railways contributions.

215. Alternatively, we consider the continuation of the present arrangements in this office should be brought under review with a view to establishing a separate organization for Kenya and the Kenya and Uganda Railways.

216. Mr. Pandya is of the opinion that expenditure on this Head does not confer any appreciable benefit on the Colony as a whole, and that a greater portion of the expenditure on this Head could safely be saved.

Head XXXIV.—Treasury.

217. While, in our opinion, the cost of this department, which includes the Central Revenue Office, is too high, we do not see how any reductions can be effected other than by a revision of salary scales.

218. We do not make any specific recommendations regarding the following Heads of Estimates of Recurrent Expenditure :—

Head

- VI—Conference of East African Governors.
- XI—Government Analyst's Laboratory.
- XII—Interest and Unfunded Debt.
- XIII—Judicial Department.
- XIV—Legal Department.
- XIX—Mining and Geological Department.
- XXII—Police Department.
- XXIII—Post Office and Telegraphs.
- XXX—Rent and Interest to H.H. the Sultan of Zanzibar.
- XXXVI—Colonial Development Fund.

CHAPTER V.

PUBLIC DEBT.

Head XXVI—Public Debt Funded.

219. The Public Debt Funded represents by far the largest individual item of expenditure in the Estimates. Indeed the total Debt Charges which have to be met in one way or another by the Colony in 1935 amount to £1,065,918. We therefore consider it of the utmost importance that steps should be taken to ameliorate the present position.

220. The total Public Debt of the Colony is at present £17,205,600, on which the interest and sinking fund charges amount in 1935 to £1,043,252. In other words, we are paying annually in interest and sinking fund on our borrowed money at a rate substantially over 6 per cent, for a number of our loans were raised at a discount.

221. Our loans, with one small exception, were floated in London in times of high prices and at high rates of interest, and the terms on which they were obtained provide for no early date of redemption. (The one exception referred to is the £305,000 Loan of 1933, on which the rate of interest charged is $3\frac{1}{2}$ per cent.) The result is that a very severe burden is thrown on the Colony, which, with the present low level of world commodity prices, can only be met by the export of many times the quantity of produce originally thought to be required to meet the resulting debt charges.

222. We are aware that the annual burden is not entirely thrown on the Colony's budget as such, in that the bulk of the charges are reimbursed by, or covered by the earnings of, the Railways and Harbours Administration, Local Authorities, the Land Bank, Water Supplies, and other sources. In point of fact, according to the 1935 Estimates, of the total sum of £1,043,252, the sum of £859,977 is so reimbursed to Government, and only £183,275 falls on the taxpayer as such. The obvious deduction, namely, that the Government is only concerned with these charges to the extent of £183,275, we consider to be entirely fallacious and misleading. All the money, whether borrowed for the Railway, Local Authorities, or any other service, was borrowed for a *public* purpose, and the annual charges are found by the general public in some form. In their capacity of taxpayers, they find the £183,275 which falls directly on the Colony's budget; as users of the Railway they pay the charges on moneys borrowed for Railway purposes in the form of higher freight rates; similarly with Local

Authorities as ratepayers, with Water Supplies as consumers of water, with the Post Office as senders of telegrams, and so on. The plain fact is that, in some form or other, the inhabitants of East Africa have to find the money, and the charges are not, in our opinion, commensurate with ability to pay, owing to the catastrophic fall in commodity prices.

223. Nearly every country in the world which is dependent on primary products for export, has been compelled to seek relief either by a reduction in the external value of their monetary unit, by suspension of sinking funds, by conversion of their loans, or by, in some cases, frank default.

224. The loans raised by this Colony appear to have been raised on exceptionally harsh terms or, perhaps it would be fairer to say, at exceptionally unfavourable moments. We believe that the Kenya £5,000,000 6 per cent Loan of 1921, which was issued at 95 and which is not redeemable before 1946, was the most onerous loan which was ever incurred by any Colony or Dependency controlled by the Colonial Office. From an examination of the details of that loan, it will be seen that of the £5,000,000 borrowed, £423,539 was absorbed in expenses of issue and deduction for discount, £377,955 for payment of interest, and £600,000 in repayment to revenue of advances chiefly connected with alleged wartime military expenditure, so that only £3,598,506 became available for developmental purposes. For this, including sinking fund at 1 per cent, the Colony has been committed to paying not less than £350,000 per annum.

225. It is difficult to make concrete recommendations on this subject because, as has been pointed out, no provision for early redemption exists among the conditions on which the loans were floated. We strongly urge, however, that in view of the fall in commodity prices during the past few years, some remedy for this state of affairs by His Majesty's Government in the United Kingdom, in its capacity of trustee, is long overdue, and therefore we recommend that further representations on this subject be immediately made to the Secretary of State.

226. In view of the many considerations and possible complications which have to be taken into account and also expert knowledge which is required before any adequate examination of this problem can be undertaken, we frankly do not consider ourselves competent to make definite recommendations which we feel should emanate from the financial experts on whose advice the terms were drawn up on which

our existing loans were floated. As only a very tentative proposal, however, we suggest that some remedy might possibly be found on one or other of the following lines :—

- (a) Inducement to convert all current Colonial Empire Loans into a Consolidated Empire Loan at current interest rate, carrying the attraction of a guarantee by the Imperial Government and unencumbered by any proviso as to sinking fund ;
- (b) If such a general policy is not feasible, the formulation of a scheme whereby the existing onerous loans might be converted into a long term or preferably interminable loan at the current rate of interest. This would, we realize, involve an increase of the nominal capital amount of the Colony's debts. The present crisis, however, as is universally admitted, derives from the excessive value of the money unit in terms of commodities and as it is the expressed policy of the Imperial Government to remedy this appreciation of the money unit by raising the commodity price level, the essential objective is to seek immediate relief from interest and sinking fund payments for the next few years. Future relief will be assured when the Imperial Government implements its declared monetary policy ;
- (c) The release and liquefaction of all accumulated sinking funds and other similar funds, such as the Betterment Fund of the Kenya and Uganda Railway, to be applied to lubricating the seized internal mechanism of the countries which have provided them. For example, by such means a sum in excess of £3,000,000 could be rendered available.

227. It is worthy of note that if relief could be obtained to the extent of $1\frac{1}{2}$ per cent per annum on existing interest and sinking fund charges, such relief would amount to no less than £258,000 per annum.

228. The easiest, surest, and most effective relief would be provided by the abolition of the sinking fund principle and the release of accumulated sinking funds. There can be no argument for burdening the pioneer generation with the whole charge of elaborating the skeletal system of civilization in these as yet only partially developed countries.

(229. Note by Mr. Hemsted : I am in substantial agreement with the general views expressed on the subject of the Public Debt, particularly in regard to the suspension of sinking

fund appropriations in cases in which loan capital has been expended on productive works. I consider that any funds so obtained should be devoted primarily to relieving any additional nominal capital burdens arising out of the recommendations outlined in paragraph 226 (a) or (b), and/or to the funding on an actuarial basis of Pensions and Provident liabilities.)

230. Mr. Pandya, while agreeing in principle with the liquefaction of accumulated sinking funds, and other similar funds, considers that they should be used for the purpose for which they have been accumulated.

*CHAPTER VI.

FINANCIAL RELATIONS WITH THE RAILWAY.

231. The terms of reference of this Committee naturally do not contemplate any inquiry into Railway expenditure, but, at the same time, the number of cross-entries and reimbursements between the Railway Administration and the Colony, which appear in the Colony's budget, is such that the financial relations obtaining between the two is a matter of considerable importance to any Committee searching for possibilities of reducing Government expenditure.

232. A curious state of affairs now exists under which the relationship between the Government and the Railway Administration appears to be looked upon very much as though Government in dealing with the Railway were dealing with some extraneous and foreign power. Situated as Kenya is, with a long railway haul to the coast from its productive centres, it will be admitted the very existence of the country must depend in difficult times both on a reasonable curtailment of Government expenditure and on the maintenance of reasonably low Railway freights. At the beginning of the depression the Railway, owing to losses which it was incurring was obliged to increase its freight charges, but now although the Railway is making substantial profits and is in a sound financial position these charges are still being maintained, in addition to which Government has to subsidise the Railway in various directions. Thus the inhabitants of this country, during a period of depression and low world prices, are contributing to the Railway both as taxpayers and as Railway users.

*Mr. Hemsted agreed in principle with the recommendations in this Chapter, but did not have an opportunity of perusing the Draft Report.

233. In the preceding Chapter, we have given a brief review of the position with regard to Loan Charges, and there shown that Railway Finances would benefit by any easing of the burden of Loan Charges. There are, however, three other very important questions which affect the financial relationship obtaining between the Colony and the Railway, to which we wish to draw special attention :—

- (a) The Government share of pensions to retired Railway Officials ;
- (b) The Government guarantee in respect of losses on Railway Branch Lines ;
- (c) The protection of the Railway by Government against road competition.

234. In regard to (a), it was agreed at the time of the separation of the Railway finances from those of the Government in 1921 :—

- (1) That the proportion of the pensions of officials which relates to the period from the construction of the Railway up to the 1st of April, 1903, should be shared equally by the Colony and the Railway ;
- (2) That the proportion which refers to the period during which the Railway revenues were absorbed in Colony funds, i.e. from 1st April, 1903, to the 31st March, 1921, should be a charge against the revenue of the Colony ; and
- (3) That proportion which relates to the period from the 1st April, 1921, onwards, should be a charge against the Railway.

235. During the course of the negotiations which led up to this settlement, it was suggested by the then Treasurer that Government's liability should extend only to the existing pensions list at the time. In view of the considerable advantage derived by the Railway from the separation of its accounts from those of the Colony, and the position then accepted that the Railway was to function, more or less, as an independent organization, the late Treasurer's proposal was in our opinion sufficiently generous. Although the arrangement actually made was (acting on the assumption that the Railway and the Government of the Colony were for some obscure reason regarded as entirely separate entities) possibly reasonable, we are not satisfied that it has worked out equitably in practice. During the fourteen years which have elapsed since the 1921 agreement, the sums contributed by Government have been large, and, according to the 1935 Estimates of the Railway Administration, Government's liability has

now reached the figure of £14,162. This figure will, moreover, increase during the next few years.

236. In regard to the second item (b), we are not entirely satisfied as to the equity of the arrangement whereby Government agrees to guarantee the Railway against losses in respect of Railway Branch lines. In a new and partially developed country it is plainly necessary for the Railway to undertake programmes of expansion in its own interests and it is pertinent to note that the Railway administration is empowered to charge specially high rates on branch lines as a protection against undue loss.

237. The question of any main principle involved is of course quite outside the scope of this inquiry, but we are concerned with the working of such principles in practice. It appears from paragraphs 106 *et seq.* of the Gibb Report that, under certain methods of accounting a branch line shows a loss, while under another system, the same branch line will show a profit without any increase in traffic. As an instance of what we mean, provision was made in the Colony's budget for 1934 for the following item under "Miscellaneous Services":—"Guarantee in respect of Nanyuki Extension, £500". This item disappeared in the 1935 Estimates, the official explanation (page 22 of the Memorandum on the Draft Estimates for 1935) being: "Owing to a change in the system of accounting, no loss on this branch line is anticipated during 1935". It is therefore evident that the provision made in the Colony's budget for losses in respect of branch lines, which amounts in 1935 to a sum of £21,353, is largely dependent on the particular accounting system used in connection with the branch line in question. The wisdom of disbursing public funds on such an elastic basis appears to us as questionable.

238. In regard to item (c), it has been estimated that the prohibition of road transport in competition with the Railway has saved the latter Administration from an annual loss in revenue amounting, in round figures, to £100,000. The question of the desirability or otherwise of such protection does not fall within our terms of reference. What does concern us, however, is the fact that such protection is only given at very considerable cost to Government through loss of revenue, partly from vehicle licence fees and Customs duties on the spare parts of vehicles, but chiefly from the tax on petrol.

239. We do not wish in any way to minimise or disparage the success achieved by the Railway administration in the rehabilitation of its finances during recent years, but we venture

to point out that that success has been achieved partly no doubt through increased Railway rates, but also partly through the direct contributions under items (a) and (b) by the general taxpayer, and partly by the sacrifice of the revenue sacrificed by Government, mentioned in the preceding paragraph, which has either had to be reflected in economy in Government expenditure or in increased revenue obtained from the general taxpayer in other ways.

240. Viewing the position as a whole it appears to us that the Railway is making substantial profits in spite of the depression, which is in itself the main cause of the difficulty experienced in balancing the Colony's budget; and, moreover, the favourable financial position of the Railway is in no small part due to direct contributions by Government. We consider that this position is no longer tenable and that payments in respect of branch line "losses" should terminate and that the payment by Government of a proportion of Railway pensions should cease. By these means we visualize a direct saving of some £36,000 to Government on the basis of the present estimates, a sum the loss of which we consider the Railway is now well able to bear without resorting to the expedient of reimbursing itself by further impositions on the Railway user.

CHAPTER VII.

LOCAL GOVERNMENT IN RURAL AREAS.

Part I.—Draft by Mr. Pandya and Mr. Hemsted.

241. At the present time there appears to be a general consensus of opinion that certain services should be unified, and the tendency of modern times is that the construction and maintenance of roads should be a function of the Central Government rather than of local authorities. Formerly, in England, the road system was radiant to market towns and, in such circumstances, could be most suitably administered by local authorities, but of late years, owing to the development of rapid transport, it has assumed a national importance, and we understand that at present legislation to provide for a higher degree of national control is under consideration. A similar tendency has manifested itself in the Dominions, and we cannot but regard it as retrograde that different and independent authorities should be responsible for the upkeep of roads and bridges in a small Colony.

242. In this Colony a system has been set up which, we believe, is unprecedented elsewhere. Under that system there are at present six independent district councils which function

on local government lines under a comprehensive coded law. These councils, although instituted several years ago, have levied no rates, except small rates to finance hospitals at Eldoret and Kitale. Apart from the administration of these two hospitals, the sole executive function of the district councils is to expend on behalf of Government funds provided for the maintenance and improvement of certain roads and bridges in their several areas. For this purpose, they receive basic road grants amounting, in 1935, to a total of £31,070, together with a contribution estimated at £850 in respect of vehicle licence fees.

243. The basic road grants were originally computed on the basis of the direct Public Works Department expenditure on the district roads in those areas in 1927, plus 25 per cent on account of overhead charges. The need for economy in Government expenditure during the past five years has necessitated considerable reductions in the appropriation for maintenance and improvement of roads and bridges, and a *pro rata* reduction has been made, by agreement with the local authorities, in the basic road grants statutorily payable to district councils. These basic road grants were made on a generous scale, because during 1927 the sum on which the basic grants were computed was sufficient to cover not only maintenance, but also such a measure of extension and improvement as might be said to amount to new construction.

244. With the sums provided by Government, the six district councils maintain a total road mileage of some 1,713 miles out of a total public road system of 12,224 miles, the grants received by them amounting to more than double the direct charges paid by Government in respect of all the native reserve roads in the Colony, which amount to 4,850 miles in length. Local Native Councils contribute, according to their 1935 estimates, a total sum of £8,128 for the upkeep of roads in their areas from the rates levied by them, although these roads are used by prospectors, miners, and other non-native travellers as much as roads in settled areas. We thus have the position that in the same Colony certain roads in settled areas are administered by district councils, in an executive capacity, from funds supplied entirely by Government from general revenue, while in native reserves district roads are administered by Government partly from funds hypothecated in the Colony's Estimates and partly from sums voted by Local Native Councils from locally imposed rates.

245. A further point is that in the maintenance of a road system such as obtains in this Colony there are great variations of detail in the types of machinery employed for road-making and in maintenance, in the designs for bridges and culverts, in the loading for which bridges are designed, and in numerous other ways. Standing general specifications and type designs exist, but no standardization is possible when the control is vested in a number of local government authorities, because each authority and each engineer has different ideas and each engineer is responsible to a different authority.

246. We cannot agree that the abolition of district councils, in so far as their road activities are concerned, would be a retrograde step politically. This Colony cannot regard itself as more advanced in its rural areas than the Transvaal, Natal, the Orange Free State, and Southern Rhodesia, which have no local government in rural areas.

247. So much for general principles. It is now necessary to examine certain facts and figures. Leaving on one side revenue for hospital purposes, according to their own estimates the total sum to be expended in 1935 by district councils is £34,104, all of which has been contributed directly by Government. Of this sum, £8,007 is to be spent on overheads and £26,097 on direct charges. The road mileage of 1,713 miles includes some 164 miles of feeder roads, which are maintained for £3,552, or an average of £21.6 per mile. The remaining district roads, amounting to 1,549 miles, cost £22,545, or £14.9 per mile in direct charges, including foremen, but not including overheads such as the time of the engineer or clerk to the district council. The average maintenance cost per mile of road in settled areas not under local government is £10.83.

248. It may be considered that it is valueless to compare the figure of £14.9 per mile with the figure of £10.83 per mile, owing to the difference as between the cost of maintenance of different roads. The figures are, however, average figures. Both in respect of district council areas and non-district council areas they include roads varying from roads serving a few farms under good climatic and soil conditions to roads serving many farms under bad climatic conditions, and, in our opinion, the comparison between the figures is reasonable.

249. If district councils were abolished and the roads at present administered by them were taken over by the Public Works Department, we are fully satisfied that the whole of

their overheads, namely, £8,007, could be saved. The average mileage operated by each district council is 286, which is considerably less than that operated by one foreman in the Public Works Department. All that would be required would be about six more foremen, and foremen are *not* included in the overhead expenses of district councils. Neither the number of executive engineers nor the provision for their travelling would require to be increased, because the officers of the department frequently travel over district council roads for departmental purposes not connected with those particular roads, and such opportunities could be taken to exercise all necessary supervision.

250. If the transfer of such roads to the Public Works Department is effected, we are of the opinion that the direct charges might be reduced to an average of £10.83 per mile, the average obtaining in other settled areas. This, together with the saving on overheads, and the retention by Government of the £850 in respect of vehicle licence fees, would give, in round figures, a saving to the Colony's budget of £15,000. Despite this reduction in expenditure, the roads in all the settled areas of the Colony would be of approximately the same standard as district roads in the settled areas without local government are kept at present. Admittedly, this may not be quite so high as obtains in district council areas, but we contend that it is sufficiently high for reasonable efficiency, and is certainly as high as the Colony can afford.

251. We therefore recommend that the Local Government (District Councils) Ordinance, 1928, in its present form, be repealed, that Items 15 and 16 of Head XVI should disappear from the 1936 Estimates, and that the appropriation for the Public Works Department and for Public Works Recurrent should be increased by approximately £16,920, thus enabling a net saving of approximately £15,000 to be made. The Director of Public Works has given us a definite assurance that such a saving can in fact be made, and much duplication of work between the Public Works Department and district councils obviated by the adoption of the proposal.

252. It has been suggested to us, as an alternative scheme for economy, that the Uasin Gishu and Trans Nzoia Councils and the Nakuru and Naivasha Councils should be amalgamated, and the areas subject to the jurisdiction of district councils extended, their basic road grants being reduced, the idea being to compel district councils to spread their overheads over a longer road mileage. This scheme is plausible; and

would undoubtedly result in some small economy in so far as amalgamation would reduce overheads. We do not believe, however, that any economy which would be obtained would approach that which would be achieved by the entire abolition of the system.

253. At the same time, although the executive functions of most district councils are confined to road administration, the Trans Nzoia and Uasin Gishu District Councils do administer certain hospitals, and all district councils fulfil certain advisory functions. As regards the former, we consider that the administration of local hospitals is essentially a function which can and should be assumed by a local authority. We therefore recommend that a new Ordinance should be enacted to preserve these powers of the Uasin Gishu and Trans Nzoia District Councils as at present constituted, and to permit of the formation of district councils for similar purposes in other parts of the Colony. We also recommend that, in the remaining areas, the advisory district committees and district road boards which existed before the enactment of the Local Government (District Councils) Ordinance should be reconstituted in order that Government may be in a position to obtain local advice on any problem or problems on which it may wish local opinion to be ascertained.

Part II.—Draft by Major Cavendish-Bentinck and Sir Robert Shaw.

254. We are in fundamental disagreement with the views expressed in Part I of this Chapter. We are not prepared to accept the statement of the Director of Public Works that a saving in round figures of £15,000 could be effected in the six areas in which district councils have been established if these councils were abolished and if expenditure on district roads in these areas were reduced to what is said to be the average level which obtains in other settled areas in which district councils have been established.

255. We are convinced that the attitude of the Director of Public Works, and indeed of the Public Works Department as a whole, is one of opposition to the whole system of local government, no doubt because (possibly subconsciously) the very existence of local government institutions is regarded as an infringement of bureaucratic prerogative.

256. This attitude is difficult to understand, in that Government has absolute control of the basic grants made to district councils, and no expenditure out of these grants can

be made until detailed estimates of such expenditure have been approved by Government.

257. We emphatically maintain that district councils have more than justified their existence. A comparison of the road system and condition of roads at present existing with that pertaining in 1929 will prove it. Furthermore, the good work done by the district councils has been the spur by which the Public Works Department have been induced to pursue a higher standard of efficiency and economy in road construction and maintenance.

258. In Part I comparison is made between the system which has been set up in this Colony and the systems which are adopted in Great Britain, and in rural areas in the Transvaal, Natal, Orange Free State and elsewhere. In the first place, we would point out that comparison between a partially developed and young Colony with "earth" roads and the conditions pertaining in the British Isles is fatuous. On some of the main roads running through county council areas in the British Isles there is one continual stream of traffic all day long emanating from the metropolitan areas or other big towns. As examples, we would suggest the London to Brighton road, the Great North Road, etc. Some of these high-speed traffic roads have been constructed at enormous cost, running in some cases to over £60,000 per mile. In this Colony there are a few trunk or backbone roads, which connect centres such as Nakuru, Eldoret and Kitale, which roads are used for intercommunication and might be construed as of general strategic importance. In the vicinity of the centres (such as those enumerated above) they form part of a reticulation system radiating from the centre, and are used more by the inhabitants of the area fed by the centre than by through traffic, more especially since the virtual prohibition of road haulage to Uganda. This reticulation system is the particular concern of the inhabitants of the areas, and, moreover, such systems carry the vast majority of all the transport of the Colony. Equally, the parallel between the Union of South Africa and the Colony of Kenya is not apposite. Taxation is on an entirely different basis, and district councils can afford to raise considerable road funds by taxation, and yet leave the total burden on the taxpayers much below the total *per capita* taxation experienced in Kenya Colony. Moreover, the roads departments do give reasonable satisfaction in the Provinces of Natal, Transvaal, and Orange Free State—not on

funds from the Union Government, but from local taxation—and the provincial authorities are controlled by the electorate, just as are the divisional authorities of the Cape Province.

259. Before dealing with the suggestions put forward by the Director of Public Works in detail, we would point out that the Feetham Commission, after careful investigation, assessed the basic grant to district councils on what they considered to be a fair and reasonable basis for the maintenance of the roads to be taken over by the district councils in the condition in which they were in 1928. It is, however, a definite established fact that in many districts there were no roads. There was a series of tracks over the countryside, impassable in wet weather, and used jointly by motor and wagon traffic. In the Trans Nzoia and Eldoret districts not one single so-called road was even dedicated as a line of public travel, nor had they even been surveyed, and Public Works Department machinery work was conspicuous by its absence. The system of maintenance then employed by the Public Works Department was giving out to farmers and contractors work, such as building causeways, putting in culverts, etc., in portions of the road that had become impassable. If the financial provisions by Government during 1925, 1926 and 1927 for the maintenance and improvement of roads in many districts was generous, it can be asserted that such provision, as expended by the Public Works Department (prior to the arrival of the road engineer, whose services have now been dispensed with) produced lamentable results. In antithesis, and largely owing to the interest taken by local residents, the state of the roads controlled by district councils is now excellent, and this has been accomplished in spite of the fact that the basic road grants have in recent years been greatly reduced.

260. We admit that from the standpoint of economy the suggestion put forward by the Director of Public Works and in Part I of this Chapter might, at first sight, be regarded as attractive. The savings claimed are said to be composed of : (a) £8,007, which is the total of the administration and general charges of district councils; and (b) £6,338, which is obtained by reducing direct charges on all district roads (i.e. including loan feeder roads) from an average of £14.5 to an average of £10.53 per mile.

261. The proposal can well be compared with a proposal on the same lines which the Director of Public Works made in 1932 in connection with certain remarks in Lord Moyne's

Report. He then intimated that, if he resumed control of these district roads, it would be necessary to increase his staff by three overseers and three clerks, and to provide travelling and "other charges appurtenant to administration"; but Government would save in administration charges £6,777. He also indicated that "by better organization and methods of performance involving the use of the Department's standardized methods, a reduction in the number of foremen at present employed by district councils" the direct charges on roads could be reduced by £2,000 "without reduction of the standard of maintenance and improvement of those roads now in being". Alternatively, he thought the basic road grants should be reduced by 50 per cent so as to force Councils to one of the following alternatives : (i) to carry on on a purely maintenance basis with strict economy, (ii) to raise additional funds for improvement work or more staff by local rating, (iii) to withdraw voluntarily and agree to the Public Works Department taking over control. These quotations are taken from a letter from the Director of Public Works to Government dated the 15th of July, 1932. The disparity between the foregoing estimates and those submitted to this Committee indicates that one or other of the estimates is wholly unreliable.

262. As regards administration charges, as far as we can see his present proposal is only to employ six more foremen, additional to his existing staff. No increase in clerical staff is now required, apparently, so all the accounting and clerical work in connection with roads will presumably be absorbed into the Department : one District Council Engineer can also be absorbed apparently without cost into the Department. All the other clerical work now performed by Councils' staff will be taken over without demur by the Administration.

263. Incidentally we note that although in paragraph 251 above it is recommended that the Local Government (District Councils) Ordinance, 1928, in its present form should be repealed, and that items 15 and 16 of Head XVI should disappear from the estimates, a further recommendation is made in paragraph 253 that a new Ordinance should be enacted to preserve the powers of the Uasin Gishu and Trans Nzoia District Councils to administer local hospitals, and to permit of the formation of District Councils for similar (very limited) purposes in other parts of the Colony. District Councils will no doubt be much moved at the trust to be reposed in them by allowing them to continue to assume responsibility for the thankless and profitless task of managing

hospitals in competition with Government hospitals run at a loss in neighbouring areas. We can only presume that this recommendation is made for the sole purpose of preventing the rates at present imposed from being sacrificed. As regards the Capital Funds which have been built up by Councils as Reserves out of Revenue, their plant, etc., these no doubt are to be appropriated by Government.

264. We note that the Director of Public Works does not specifically state that there will be no loss of efficiency in the upkeep of roads, but remarks that they will be maintained to as good a standard as the public road system in the rest of the Colony is maintained. This is a somewhat vague statement. The maintenance of main Trunk Roads is naturally to a much higher standard than less important roads whether in settled areas or in Native Reserves. The system in vogue in respect of roads in settled areas before 1929, which we presume is still in vogue in settled areas where District Councils have not been established is described on page 17 in Volume 2 of the Local Government Commission Report, 1927. In 1929, when the Director of Public Works was explaining why, on the establishment of District Councils, he could not make savings equivalent in amount to the 25 per cent allowance made to these Councils for overhead charges he stated :—

“Practically the only technical work involved in respect of District roads in European areas is the letting of contracts in the early part of each year. These are administered by the Chairman of the Road Area Committees as Departmental Representative. Apart from interviews and occasional correspondence almost the only work subsequent to the arrangement of the contract falling on the Executive Engineer is attendance at District Road Board Meetings (an average of one per month for each Board) to advise the Boards and maintain touch with the Chairman of the Road Area Committees, together with the passing through the account of the ‘remittance between chests’ vouchers for payment to the contractors as they come in. It is to be remembered also that in the contracts contractors’ overheads are included for the contractor supplies his own tools, supervision, labour, material, etc.”.

265. District Councils may be expected to express some surprise that even their road activities could be absorbed so readily as the Director of Public Work now indicates. They might refer to pages 165/167 of Volume 2 of the Local Government Commission Report which prints a memorandum

written by the Director of Public Works in 1926. In it he states that, if his department were relieved of the responsibility for the expenditure of £26,032 on District and Township Roads or £53,086 on Main District and Township Roads in certain defined areas, he could save £8,200 or £15,020, as the case might be. Actually the figure of £8,200 might have been reducible because Councils were not set up in Kericho and Machakos and in any event it became £5,016 when six Councils were established. It must, therefore, occur to Councils as extremely odd that, having saved £5,016 by establishing them, Government can now save a further £5,757 by abolishing them and replacing them by six foremen.

266. The second saving of £6,338 is to be obtained by equalising the rate of road expenditure in all settled areas by the simple expedient of bringing it down to the lowest rate. As a matter of principle the course proposed, paying as it does no regard to comparative traffic, climatic and topographical considerations, appears to be at variance with the following remark which occurs in the Director of Public Works' letter No. A.1055/7/1/48/1 of December 17th, 1934 : "The principal factor influencing the cost of road maintenance is the traffic over the roads". There is no reason to suppose that before 1929 more road expenditure was incurred in certain settled areas as compared with others, than was justifiable. If it were advanced that development in these other areas had increased to such an extent as to justify an addition to their road maintenance allotments the argument would be perfectly intelligible, or if it were urged that the general rate of expenditure on roads was more than the country could afford and must be reduced, then the rival claims of trunk road and the produce carrying feeder roads could be examined so as to spread the burden of reduction equitably. In short there seems to be little logic in the present proposal. Expenditure on roads and supervision costs must vary with the conditions in different areas. You cannot achieve equality of standard by equality of expenditure.

267. The Director of Public Works states that the average cost per mile of roads under the Public Works Department, viz. 10,511, works out at £5.5 and the average mileage of public road per staff foreman is much greater than the 286 miles which is stated to be the average for District Council foremen. It is therefore arithmetically correct to say that if 10,511 is divided by 32 the resultant figure will be larger than 286. We have no doubt of the similar accuracy or rather "inaccuracy" of the figure of £5.5 per mile. But, of course, the Director

of Public Works is well aware that the main Trunk Roads have spent on them in direct charges as much as, or more than, £50 a mile in some sections, and that on these heavily traffical roads his foremen supervise under fifty miles apiece. There are thousands of miles of so-called roads, included in the figure of 10,511, on which we would venture to assert a foreman never treads, and which are constructed and maintained entirely by Administrative Officers, and many hundreds of miles on which (since they are mere tracks) an allotment of £1 per mile would be generous. A simple division sum dividing the total mileage of roads no matter what their importance by the total expenditure gives a result which we suggest has no practical importance.

268. We submit from the economy standpoint these proposals may then be summed up briefly. The abolition of District Councils has certain repercussions which have not been taken into account. We are unable to accept the implication that the road work can be maintained as efficiently as at present unless expenses are incurred (such as Executive Engineers' inspection, clerical and accounting work—plant, etc.) which appear clearly in District Councils' accounts, but which are obscured in the Government system of accounting.

269. Now the main gravamen of the Director of Public Works' contention is :—

Rural Local Government in Kenya is anomalous because the Councils do not rate themselves. The Councils got too much road money from Government in 1929 and so can show more for their work than the Public Works Department can in non-local-government areas; and in fact the grants are so large as to make local rating for road purposes quite unnecessary. But whether they rate or not, the whole system of decentralizing road control must be uneconomic and has disadvantages in respect of lack of uniformity and standardization : in fact unless District Councils replaced the Public Works Department *vis-à-vis all* roads over the whole Colony they would be uneconomic.

270. We imagine it is hardly required of us to justify the policy of Local Government which this Government put in effect in 1929, and still maintains. The general arguments in favour of Local Government are based on administrative, financial and political grounds. It is a form of government familiar in the Empire, and one which incidentally this Colony was advised in the Hilton Young Commission Report to

prosecute vigorously. It has not failed in its application to rural communities in Kenya because as yet they have not introduced local rates for the purpose of reducing Government Grants to them for recurrent road maintenance. There is no set of principles anywhere in the British system of Local Government upon which the ratio of financial liability for works between the taxpayers and the ratepayers can be decided. In different colonies it will be found that different expedients are adopted and, of course, it will also be found that in all colonies, no less than in the United Kingdom, the taxpayer makes very large allocations to the ratepayer. It would set at rest a great amount of argument if taxes and assets could be distinguished from their intrinsic character as national and local; and if, instead of the State keeping all such revenues in its own hands and compensating Local Authorities by way of grants, the local taxes and assets could form an endowment for local authorities. This course of perfection is, however, not possible anyhow at present in Kenya. But there is a maxim which is often heard, namely that those who use the roads should pay for them.

271. District Councils might retort to the Director of Public Works' charge that they are merely spending agencies on behalf of Government, by asking what exactly is meant by Government money? Where did it come from? A great deal of money is contributed yearly in the form of taxes on motor and other vehicles and on petrol. If the residents in settled areas contributed their fair share to these taxes which are then placed at their disposal for road maintenance purposes what substance is there in the charge that they made no direct contributions themselves? We venture to suggest that there is something in this argument. We have compiled and attach in Appendix 3 a statement which shows the revenue derived from road users and the expenditure incurred on roads from 1929 to 1933. The figures are taken from the Treasurer's and Customs' Reports for those years. They show that in 1931, 1932 and 1933 revenue exceeded expenditure by £123,223 or an average of £41,074 per annum. In 1929 and 1930 the Colony went in deliberately for heavy extraordinary expenditure, and in 1930 also had to make large special provision for flood damage; in these two years therefore the expenditure exceeded the revenue by £94,514 per annum. Nevertheless over the whole five-year period revenue exceeded expenditure by £28,737. Now in 1931 District Councils were asked to assess their motor licence contributions in respect of rural local government areas. The answer was £19,403. Calculating on

a proportionate basis their share of this and of the Drivers' Licence fee, the Petrol Tax and the Customs Revenue, the sum arrived at is £80,413. Assuming the same motor licence fees in 1933 their total contribution in that year works out at £71,800. In these two years the total Government grants for District Roads amounted to £44,648 and £33,018 respectively, so that so far from being the charitable recipients of a Government dole they paid for the dole, and made an extra contribution to Government Revenue of £15,765 and £58,782 or £27,273 per annum towards the cost of Main Trunk Roads and general Colony revenue. We suggest that these figures, unless they are disproved, speak for themselves.

272. When District Councils were established they took over the road functions of the Public Works Department. They also took over certain duties hitherto carried out by the Administration. They have, in two areas, become hospital authorities and they are empowered to become public health authorities and to contribute towards educational costs. It has, however, seemed to become a question of Public Works Department versus District Councils. This, to our mind, is a false antagonism. District Councils should, we consider, take over more roads in their areas from the Public Works Department, but they probably cannot, as yet, displace the Public Works Department entirely for the reason that the functions of Local Government (as localized in a Public Works Department Division) must remain to some extent distinct and separate. This point is made in the report of what is known as the Logan Committee. We are not aware what savings the Director of Public Works made by handing over the maintenance of the main trunk road from Gilgil to Mau Summit and the Nakuru-Ravine-Mokatana road to the Nakuru District Council, but it is possible that, in regard to Administration charges, there is no spectacular saving. Of the Director of Public Works' figure of £15,020 to which we referred above in paragraph 265 no details are available to us, but, if he thought that sum could be saved in 1926 something very close to it could presumably be saved now if Kericho, Machakos and Laikipia were brought into Local Government and if all the main trunk roads in all the areas were handed over to the District Councils.

273. There are certain comparatively small, but nevertheless useful, savings in administration charges by District Councils which could be made as economy measures. The framework set up in 1929 is not perfect. The District units were fitted on to units which had already attained a certain

cohesion and unity under district administration. The units are, however, not irrefragable. Of course units must not be too large or *local* interest will be lost. In normal times it would be difficult, owing to local prejudices, to carry through with agreement a policy of fusion of units and normally any savings effected by fusion in overhead administration costs could rightly be claimed by the local authorities themselves. We think, however, that the present stringent need for economy would justify fusion of certain units and the retention by Government of such savings as resulted from fusion.

274. In paragraph 272 we have pointed out that the time appears to have arrived when the country must choose between a system of Local Government or a reversion to complete control by the Public Works Department. Furthermore we believe that a phase whereby part of the settled areas have adopted Local Government whereas other portions have so far declined to do so is uneconomical. We consider that the whole of the area delineated by the Carter Commission as "White Highlands" should adopt Local Government and that District Councils in these areas should administer and be responsible for all roads. Furthermore, there are many roads running out of this area into Native Reserves which may be looked on as "feeder roads" the upkeep of which (as is done in some cases already) should be done by the District Councils either as contractors to Government or otherwise.

275. It will be argued that under such a system there would be a complete lack of standardization. We submit that the unification and standardization bogey has been stressed out of all proportion to its true importance. In any case, however, Councils have been told that Public Works Department's standard designs are available to them and all have agreed to adopt them for permanent work.

276. We, therefore, visualise :—

- (a) An effective fusion between Uasin Gishu and Trans Nzoia Councils. This combination could in our opinion take over all the roads in the neighbourhood which are at present maintained by the Public Works Department. Such a fusion, provided the amalgamated Councils were given a greater mileage of road to look after, would undoubtedly produce very considerable economies as practically the whole of the Public Works Department staff in that area could be withdrawn.

- (b) Naivasha and Nakuru should be united and be increased by the Laikipia District to form a Rift Valley District Council. This should result in a saving of at least £1,000; partly by a reduction in existing Administration charges and partly by savings in the Public Works Department Division.
- (c) Machakos should be brought into the Nairobi District Council area which might then be given a more comprehensive name. This should result in a saving of £500 by reductions in the Public Works Department Nairobi Division.
- (d) Kericho should be brought into the Nyanza District Council area with consequent Public Works Department savings of £200/300.
- (e) The areas of Nyeri, Nanyuki and Timau should adopt Local Government and form a further District Council area.

277. In the matter of Feeder Loan Roads, the present minimum expenditure was fixed on the advice of the Director of Public Works. We agree that these roads could now be lumped in with other district roads. If this were done and each was allotted the average direct charges applicable to district roads the total saving would be approximately £500.

278. Thus as against the possible saving of £5,757 or £8,007 as claimed by the Director of Public Works which, in our view cannot possibly be obtained without loss of efficiency and which in any event leaves out of account all activities of District Councils except roads : pre-supposes an only partially employed Administration and Public Works Department staff to deal with clerical and accounting work : involves serious difficulties in respect of hospitals and invites a political setback of no little importance : we suggest that greater genuine savings would be obtained through the medium of fusion and (if need be) coercion of areas in which Local Government has not yet been established : and further savings, the extent of which we cannot estimate (as partly owing to the fact that Public Works Department Divisional Areas do not coincide with Administrative Areas and partly owing to the fact that most officers of the Public Works Department are said to be engaged on a diversity of activities) as we have been unable to obtain the precise amount which the Public Works Department are at present spending on roads in these areas, but which on the Director of Public Works' own showing, ought not to be inconsiderable if Councils are given the maintenance of main trunk roads passing through their areas.

279. As regards the further saving proposed by the Director of Public Works of £6,338 on Direct Road Charges in respect of roads in District Council areas, the premises on which this proposal is based are in our view unsound for the reasons which we have stated. Roads expenditure generally will we fear have to be curtailed and Council roads will have to take their fair share in such a reduction.

280. According to the Director of Public Works some £57,000 is spent annually on the bare maintenance of roads. By the adoption of our recommendations with regard to the fusion of certain District Council Areas and the adoption by the whole of the White Highlands of the principle of Local Government, this sum could probably be reduced by at least 5 per cent which, together with the economies we have already suggested shows a saving of £4,850, which recommendation is already included in recommendations under Heads XXVII and XXVIII.

281. As has been pointed out, over and above such minimum savings under Head XVI "Local Government Contributions to Local Authorities", further very considerable reductions could be made under Heads XXVII and possibly XXVIII—"Public Works Department" and "Public Works Recurrent".

282. We would also point out that substantial contributions are made to the Public Works Department by Local Native Councils towards the expenditure incurred on roads in the Native Reserves. These sums are not apparently disclosed in the Colony's Estimates. We are of the opinion that enquiries should be instituted by a Committee into these payments as we feel that in some cases Native Councils may be paying for or contributing towards expenditure incurred on roads which are not primarily necessary for the natives themselves. As an example we would mention roads in the gold mining areas.

283. In conclusion, although owing to the impossibility of our obtaining exact information as to the allocations of Public Works Department's expenditure on roads, road machinery and staff in the different areas, we are unable to make a precise estimate of the savings which, in our opinion, could be made. We are, however, satisfied that a total and genuine saving could be made to a figure in excess of the figure of £15,000 suggested by the Director of Public Works. We have referred to the subject when dealing with Head XXVII—"Public Works Department".

***CHAPTER VIII.**
TERMS OF SERVICE.

284. The cost of departmental services rendered by Government is divided in the Estimates into "Personal Emoluments" and "Other Charges".

285. Under "Personal Emoluments" is included provision for the salaries of departmental officers and for personal, duty, entertainment and other similar allowances to which they may be entitled. The remainder of the departmental expenditure appears under "Other Charges".

286. Examination of the departments' estimates for 1935 (as passed by the Legislative Council) discloses that provision for Personal Emoluments alone totals no less than £1,205,106; of this sum, some £46,000 is returned from the levy on official salaries.

287. This amount represents the estimated prime cost of the salaries and allowances (other than house allowance) of the departmental officers of Government. To arrive at the true total cost of these officers, it is necessary to take into account provision for passages and the cost of providing such privileges as free medical attendance, free quarters, house allowances, and the future cost of pensions and gratuities payable to such officers. Owing to the terms on which the majority of the officers of Government hold their appointments the annual cost to the Colony is considerably greater than the cost of their salaries. In the case of pensionable officers, the cost to Government of "hidden emoluments" is said to equal a further 40 per cent addition to their salary figures.

288. As regards the cost of "passages" referred to in the preceding paragraph, we would point out that no less a sum than £56,979 has had to be provided for passages only for the year 1935.

289. We have given careful consideration to the terms of service governing the Kenya Civil Service, and have reached precisely the same conclusions as those reached by the Expenditure Advisory Committee which was appointed in 1932 and which reported in 1933, and can be found in paragraph 37 of their Report. The two main conclusions are:—

- (a) That the existing terms of service are unnecessarily generous now that many of the former hardships of life in the Colony have been removed; and

* Mr. Hemsted has not had an opportunity of expressing an opinion on the recommendations in this Chapter.

(b) That the Civil Service still enjoys many privileges which may have been justified in prosperous times, but which are so no longer.

290. As an example of what we mean, we would draw attention to the scale of salaries laid down for European teachers, which we would go so far as to say is quite unreasonably disproportionate to the scale of salaries paid for similar posts in the United Kingdom or in any Dominion.

291. We understand that the argument is put forward by the Colonial Office that in order to get the best men for teaching it is necessary to bring the salaries of the teaching staff up to a parity with those paid to administrative officers. We consider this argument totally absurd. Can it for instance be seriously suggested that in order to secure a man to teach a few Arabs in Mombasa it is necessary to place him on a salary scale of £840 to £920? This figure, of course, with 40 per cent added in "hidden emoluments", passage, housing, etc.

292. We do not in the least desire to suggest that departmental officers are not extremely capable, conscientious and hard-working. Least of all do we wish to cast aspersions on individual medical and other officers in the Medical Department. But viewing the Colony's salary list as a whole we cannot admit that it is reasonable for a small Colony like this to have no fewer than 28 officers in one department alone, i.e. the Medical Department, drawing basic salaries of £1,000 and over (again, of course, with 40 per cent added for "hidden emoluments"), and no less than 48 officers whose salary including "hidden emoluments" amounts to over £1,000 per annum. These remarks apply equally to the Agricultural Department, in which there are 31 officers, and to the Education Department, in which there are 20 officers drawing over £1,000 per annum including "hidden emoluments".

293. The percentage of officers drawing, including hidden emoluments, £1,000 per annum or more of the total number of European civil servants (excluding, of course, the Railway) employed by Government is approximately 22.5 per cent. The percentage of officers drawing, including hidden emoluments, over £1,000 per annum of the total of European and Asiatic civil servants is 10.8 per cent. The comparative figure is Great Britain is only 0.86 per cent; or less than one per cent. This we feel is noteworthy.

294. We attach hereunder a list of salary scales as they existed in 1914 and as they exist to-day, from which it will be seen that salaries have increased by 100 per cent, and in some cases by 140 per cent. "Hidden emoluments" have also increased.

295. As compared to these increases we would stress that in accordance with the recommendations of the Royal Commission on the Civil Service, which sat from 1929 to 1931, salaries of the civil servants in Great Britain have been stabilized on the basis of the current operative index number of 50. This basis was to be reviewed in 1934, when the consolidated rates of pay were finally determined in relation to general wage levels then prevailing in outside industries, a principle which has been completely disregarded in this Colony.

296. Furthermore, the basis adopted in Great Britain does not involve an all-round 50 per cent addition to pre-war scales of pay, as only civil servants in receipt of basic pay of 35/- per week or less are at present receiving the full bonus addition of 50 per cent. For higher salaries, the addition is tapered off so that the civil servant who was in receipt of a basic salary of £500 per annum pre-war, receives to-day with bonus only £625, or an addition of about 25 per cent. The civil servant receiving £1,000 per annum pre-war receives to-day only approximately £1,150, or an addition of 15 per cent. A pre-war salary of £1,800 receives to-day £1,950, or a percentage increase of 8.3 per cent. The pre-war salaries of £2,000 or over have remained unaltered. In giving these figures we have of course disregarded the cuts which were in operation in Great Britain, but were restored this year.

297. We are aware than in 1920 many of the scales of salaries were even higher than they are to-day. This, however, in no way alters our contention, i.e. salary scales in Kenya, viewed as a whole, are unnecessarily generous.

298. The history of the immense increases in the salary scales in this country is as follows:—

The salary scales which obtained before the war were subjected to examination by a Civil Service Commission during 1918. That Commission, influenced no doubt by the extravagant incongruity of standards resulting from wartime conditions, recommended considerable increases which, with certain modifications, were approved by the Secretary of State in 1920. These scales were entirely new, and unrelated to the pre-war scales, but envisaged the abolition of the war bonus which had been paid on a sliding scale.

299. At the time when these new scales of salary were introduced, the rupee, the rate of exchange in respect of which had hitherto been 1s. 4d. (i.e. 15 to the £), was fixed at 2s. (i.e. 10 to the £), having previously risen as high as 2s. 10d. At the time of stabilization, the name of the standard local coin was changed to the florin, and the sterling value of a salary, previously paid in rupees at 15 to the £, and now paid in florins at the same rate, became increased by 50 per cent, although the same number of local standard coins were paid into the officers' banking accounts. For some unaccountable reason, it was held to constitute a hardship to the civil servant not to permit this 50 per cent increase, as it was alleged that the purchasing power of the local coin was less than when its value had been 15 to the £. The 50 per cent increase in sterling value was therefore allowed to remain, but in the form of a local allowance, which was intended gradually to disappear as the purchasing power of the florin in East Africa increased. The local allowance was, in fact, reduced during 1922 and 1923. Salary scales were again revised in an upward direction in 1926, when the opportunity was taken to abolish the local allowance.

300. The following table shows the history of the salaries paid to certain officers :—

	*1914	1920	1922	1923	1926
Colonial Secretary ..	£ 1,000	£ 1,800 plus 900 local allowance, 2,700	£ 2,250	£ 1,960	£ 2,200
Chief Justice ..	1,000	2,000 plus 1,000 local allowance, 3,000	2,500	2,170	2,400 (now 2,300)
Attorney General ..	900	1,500 plus 750 local allowance, 2,250	1,875	1,645	1,800
Treasurer ..	708	1,200 plus 600 local allowance, 1,800	1,500	1,330	1,450
District Commissioner (Maximum of Scale)	500	700 plus 350 local allowance, 1,050	876	805	920

*Rate in Rupees at 15 to £.

301. We are convinced that technical officers of experience must be available to advise Government with regard to various departmental activities, and that such officers should be well paid in order that we shall secure the services of able men, but instead of having a reasonable number of such officers we seem to have acquired far too many officers who draw what, under present-day conditions, are very high salaries.

302. We are told that in many cases officers are thrust upon us by the Colonial Office on the plea that, having advertised the fact that they require a certain type of man for the Colonial Civil Service, they have got to find jobs for applicants somewhere, or suitable men will cease coming forward. We can only say that the sooner the Colonial Office ceases viewing this position from a Utopian point of view and realizes that on earth certain hard facts have to be faced, such as the capacity of small Colonies to pay for such over-ambitious services, the better it will be for the Colonial Empire as a whole.

303. We consider in view of present-day conditions, the history of the past few years, and present-day prices of primary products (on which, after all, the country's capacity to pay largely depends), that an arbitrary revision of existing salary scales, similar to that which took place in Great Britain, is considerably overdue. Civil servants' scales of salary have been drastically reviewed both in England and in the Dominions. The salaries paid, for instance, in the Union of South Africa are considerably lower than those paid in Kenya for positions which must entail far greater responsibility. We are further of the opinion that Government, in considering its Budget, should take into consideration what proportion of the revenues available can justifiably be expended exclusively on salaries. We recommend that this figure should, at any rate for some years to come, be limited to £1,000,000 per annum as regards permanent establishment. We must remember that 40 per cent must be added to a considerable proportion of this figure to defray the cost of "hidden emoluments", and that the cost of passages constitutes no small item of expenditure. The country cannot afford to expend an undue proportion of its revenue purely in salaries; moneys are required for productive developmental expenditure.

304. CIVIL SERVICE SALARIES—1914 AND 1935.

	1914 Rate in Rupees Converted at 15 to £1	1935
H.E. THE GOVERNOR :		
H.E. The Governor	£3,000+*1,000	£5,000+*2,500
Aide-de-Camp	£250	£400
Clerk to H.E. The Governor..	£120-180	£600
ADMINISTRATION AND SECRETARIAT		
Colonial or Chief Secretary ..	£1,100	£2,200
Senior Assistant Colonial Sec- retary or Deputy ..	£600-700	£1,200 or 1,350
Provincial Commissioners ..	£500-700	£1,350
District Commissioners ..	£400-500	£400-920
Assistant Secretaries ..	£250-400	£720-920
AGRICULTURE :		
Director of Agriculture ..	£800-1,000	£1,500
Chief Veterinary Officer ..	£600-700+*60	£1,200
Agricultural Instructors now Agricultural Officers..	£250-300	£372-720
Stock Inspectors ..	£200	£300-500
AUDIT :		
Auditor	£550-700+*50	£1,150
Senior Assistant or Deputy ..	£400-500+*50	£960
Assistant Auditors ..	£250-400	£425-720
CUSTOMS :		
Commissioner of Customs ..	£600-700	£1,400
Deputy	£400-500	£1,000
Collectors of Customs ..	£250-400	£360-720
EDUCATION :		
Director of Education..	£500	£1,500
Arab School, Mombasa ..	£200	£920
Practically no Education Officers in 1914—Comparison not possible.		
FORESTS :		
Conservator of Forests ..	£500-700+*20	£1,200
Assistant Conservators ..	£250-300	£480-840
Foresters	£120-200	£300-500
JUDICIAL :		
Chief Justice	£1,000+*100	£2,300
Puisne Judges	£700-800+*80	£1,450
Magistrates	£400-500+*40	£720-920
Registrar of High Court ..	£400+50	£720-920
Deputy Registrar ..	£200-350	£600-720
LEGAL :		
Attorney General	£800+*80	£1,800
Assistant Attorney General, now Solicitor General	£450	£1,200

*Allowance

CIVIL SERVICE SALARIES—1914 AND 1935

	1914 Rate in Rupees Converted at 15 to £1	1935
SURVEYS :		
Surveyor General .. .	£800	£1,000
Office Superintendent .. .	£245-270	£594
Surveyors .. .	£215-250+*36	£480-720
District Surveyors .. .	£360-400+*60	£720-840
Computers .. .	£250-350	£480-720
Draughtsmen .. .	£160-280	£372-600
Principal Registrar of Titles .. .	£500-600+50	£720-840
MEDICAL :		
P.M.O., now Director of Medical Services .. .	£700-850+*75	£1,500
Deputy .. .	£600-700	£1,200
Senior Medical Officers .. .	£500-600+*50	£1,000-1,100
Medical Officers .. .	£400-500	£600-1,000
Dispensers .. .	£200	£390
Sanitary Inspectors .. .	£200-250	£372-660
Medical Officer for Bacteriology, now Senior Bacteriologist .. .	£600	£1,100
POLICE :		
Inspector General of Police, now Commissioner .. .	£600-800	£1,350
Assistant Commissioner .. .	£400-500+*40	£1,000
POSTS AND TELEGRAPHES :		
Postmaster General .. .	£500-700+*50	£1,600
Deputy Postmaster General .. .	£600	£1,120
Assistant P.M.G. .. .	£350-450	£720-840
1st Class Postmasters .. .	£300-360	£600-720
Electrical Inspectors .. .	£200-300	£600-840
Telegraph Engineers .. .	£300-450	£720-840
Sub-telegraph Engineers .. .	£200-300	£500-600
PRINTING :		
Government Printer .. .	Not comparable	
PRISONS :		
Inspector of Prisons, now Com- missioner of Prisons .. .	£300-400+30	£1,000
PUBLIC WORKS :		
Director of Public Works .. .	£700-800+70	£1,350
Deputy D.P.W. .. .	£500-700+50	£1,000
Executive Engineers .. .	£400-500+40	£840-920
Assistant Engineers .. .	£300-400	£480-820
Architects .. .	£300-400	£840
Chief Accountant .. .	£400-500	£920
Chief Storekeeper .. .	£300-400+30	£720-840
TREASURY :		
Treasurer .. .	£600-720+60	£1,450
Deputy Treasurer .. .	£500-600+50	£1,000+125
Assistant Treasurers .. .	£250-400+50	£425-840

*Allowance

305. From the foregoing it will be seen that the rises in salary scales between 1914 and 1935 have not been uniform. In some cases the increases have been comparatively moderate; in others from 100 per cent to 150 per cent.

*CHAPTER IX.

REORGANIZATION.

Part I.—Draft by Major Cavendish-Bentinck and Sir Robert Shaw.

306. During our deliberations evidence was adduced to the effect that it was doubtful whether the strict system of Crown Colony Government could indefinitely continue to be economically and efficiently applied to the Colony of Kenya.

307. Most Crown Colonies are virtually Native States, and the problems of Government in such dependencies are not complicated as in Kenya by the presence of a strong white settlement. The dislocation occasioned by a strong white settlement on the type of Government machinery existing in this Colony to-day is very considerable.

308. We are also doubtful whether the departmental system has not overgrown, as it appears to us that there now exist an undue number of extravagant departmental secretariats. The cost of "administration" of the various departments is very great, and we consider there is too much inter-departmental correspondence and an unnecessary number of letters written by the technical officers in the field to departmental headquarters.

309. We also consider that it is probably unwise to entrust to too great an extent executive authority to technical men.

310. Furthermore, the existing system throws too much work on the Secretariat, which has now become a big department in itself, members of which are, admittedly under existing conditions, overworked.

311. Bearing these considerations in mind, we therefore venture to suggest that a reorganization of the machinery of Government on the lines of a "grouping" of departments under a non-technical head would be conducive to both economy and efficiency. This system is, of course, adopted in all Dominions and in Southern Rhodesia. Such a system would

* Mr. Hemsted had left the Colony before this Chapter was drafted, and the recommendations therein are not necessarily endorsed by him.

also have the additional advantage of offering further avenues of promotion for deserving officers in a Colony in which at present there are only four Provincial Commissioners.

312. We venture to suggest that the satisfactory introduction of such a system would entail a reorganization and a reduction in members of Your Excellency's Executive Council. In such a scheme, we envisage that Your Excellency's Executive Council would consist of the bearers of the five portfolios enumerated below, together with two or three unofficial members nominated as at present by Your Excellency.

313. In Appendix 4 will be found a tentative outline of the type of reorganization we have in mind. We have also stated as approximately as can be ascertained under each head the estimated gross, net and non-recurrent cost as provided for in the 1935 Estimates, and where possible we have also inserted the existing approximate "Overhead Cost of Administration" of each head of expenditure, as we contend that by the adoption of the "grouping" system outlined considerable savings could be made in the present "administration charges" of many departments.

314. We, of course, presuppose that the holders of these portfolios would be officers of experience, who would be capable of taking decisions and who would be prepared to assume a considerable measure of responsibility. The present Crown Colony system of Government discourages senior officers from assuming responsibility for decisions which it should be their prerogative to make. Under the system we recommend a very large proportion of the queries which now go to the Secretariat would be dealt with direct by bearers of these portfolios, and far less would be referred to the Colonial Secretary or to Your Excellency, although naturally the bearers of these portfolios would have access to Your Excellency and could if necessary discuss any problems with Your Excellency direct.

315. Such a system of "policy control" by non-technical men would inevitably, when times are better, ensure that any general advance of developmental services would be made on a more evenly balanced basis than in the past. We feel that hitherto, owing to the personality of certain technical heads of departments, the progress of certain services has tended to unduly outstrip other developmental activities upon which the former must depend for full fruition. The present tendency to the overlapping of departmental activities could also be more easily obviated. As examples of what we mean in this

regard we would mention the Public Works Department and local government authorities, between whose activities, as we shall show later in the report, considerable overlapping and duplication takes place; as a further example, we would draw attention to pages 60, 61, and 62 of the 1933 Native Affairs Report, in which examples are quoted of very similar activities being undertaken by (a) the Missions, (b) the Education Department, and (c) the Veterinary Service. By such a system as we suggest a proper co-ordination and grouping of institutions could also be more readily achieved. We cannot believe that the existing system can be conducive to economy whereby in the Masai area it has been possible for the schools under the Education Department to be constructed at Narok and Laitokitok, whereas the veterinary school is at Ngong; or whereby in the Nandi area the school is at Kapsabet, and the veterinary school at Baratong.

316. The adoption of our suggestions would further ensure that the Secretariat would again revert to its proper status, i.e. Your Excellency's business office for the conduct of Your Excellency's correspondence and correspondence with H.M.'s Secretary of State and the neighbouring territories, and the Colonial Secretary would revert to being, as he should, Your Excellency's deputy and the head of the Administration, and it would relieve him of the burden of trying to be jack-of-all-trades and head of all departments in a Colony the administrative machinery of which has grown to such proportions as to make it quite impossible for any one man to do the work the Colonial Secretary is endeavouring to do under existing conditions.

317. Last, but not least, the public could get prompt and definite decisions from the bearers of these portfolios, who would practically be Ministers, instead of as at present frequently having to await the results of protracted inter-departmental correspondence, and frequent unnecessary references to the Colonial Secretary and to Your Excellency.

318. The economies such a system would produce are not easy to assess at the moment. We are confident that they would be very considerable, and we are equally confident that the despatch of business would be enormously expedited.

319. We realize that the objection would be made that but few economies could be made in the existing departmental machinery, and that the bearers of the portfolios would require

high salaries and some clerical assistance, all of which would probably entail extra expenditure superimposed on that already taking place. We admit that the bearers of the portfolios would have to have clerical assistance, but we contend that not only could this easily be provided but considerable economies made by a reasonable curtailment of the existing extravagant departmental headquarter staffs. Although it would probably be impossible to assess precisely the present cost of administration alone of Government departments as at present constituted, it must amount to not less than £125,000 per annum. It will be noted, for instance, that the present cost of administration alone of the groups of departments tentatively allocated to the portfolio of Justice and Internal Affairs probably amounts to at least £45,000. The present cost of administration of the group of departments tentatively allocated to the portfolio of Commerce, Transport and Mines cannot be less than £39,000; and the present cost of administration of the departments tentatively allocated to the portfolio of Agriculture and Lands is possibly not less than £21,000. We feel that these figures speak for themselves, and economies in these unproductive administrative costs are long overdue. Under the present system, in order to "administer" the Government, we are paying under such votes as The Governor, The Secretariat, Legislative Council, the Conferences of East African Governors, and the Administration over £258,000, and yet over and above this sum we have to find a further £125,000 in order to "administer" executive, service and technical departments, and we feel that of this £125,000 a very large proportion could and should be expended on direct services and not on the salaries of a largely non-productive sedentary staff.

320. As a footnote to these remarks, we would like to add that even under existing conditions considerable savings both in time and expenditure could be obtained if the practice of dictating letters to competent stenographers were generally adopted. From the evidence we have had it would appear that many officers who are drawing high salaries and who must of necessity conduct a considerable amount of correspondence never dictate letters but laboriously draft same in long-hand. Many of the lady clerks employed by Government have a thorough knowledge of shorthand, but it would appear that Government officers do not take advantage of their qualifications.

Permanent Establishments.

321. The foregoing suggested reorganization, even if adopted, would not of itself solve the question of how recurrent expenditure can be best controlled and kept within reasonable limits in the future.

322. Whilst being aware of the complications peculiar to Kenya as regards overseas commitments, reimbursements from other territories, etc., we consider that adequate control will never be exercised over recurrent expenditure until a recognized and rigid "establishment" is adopted as regards staff. Even should world conditions improve, for many years to come this Colony must be administered on lines whereby overhead staff and overhead recurrent expenditure are kept down to a minimum. As and when surplus balances become available, productive expenditure can be incurred for special purposes, but such expenditure should be looked on as temporary and not recurrent. Thus, when world conditions or circumstances in Kenya are not favourable we should have the minimum to carry, and when things are better we can afford to launch out on expenditure which will give us some capital asset in return without building up a permanent millstone round our necks.

323. This can only be provided for under a system whereby we recognize as *permanent* only the minimum establishment which is required to administer the Colony in difficult times. All employed, over and above this establishment, on temporary developmental works should be employed on a temporary non-pensionable basis. We need scarcely add that we regard the Local Civil Service as coming within the "establishment". We understand that a similar system is now adopted by the Kenya and Uganda Railways and Harbours. It is also adopted in other dependencies.

324. We do not look upon the existing type of three-year contracts, with provisions for leave and passage, as being altogether satisfactory. Under these contracts, which are made on behalf of the Colony by the Crown Agents, officers are engaged for periods of three years, and in many cases such officers (who should only be engaged for special temporary work) are not required for so long a period. Admittedly a three months' notice of termination of employment clause is provided for in these standard agreements; but this clause is never used by Government, who appear to regard the exercise of the rights for which provision has been carefully made by the Crown Agents as constituting something dishonest.

325. We are at a loss to understand this contention, as the contracts to which we refer are drawn up on similar lines to the usual contracts which exist as between employers and employees in civil life. Most commercial contracts contain a similar clause, providing for "notice of termination by either party", of which provision the employer has to avail himself when under adverse circumstances he can no longer afford to continue paying the employee. The employee equally can avail himself of this provision when it is to his advantage, and he therefore cannot regard the exercising of a legal right under such circumstances as being in the least unreasonable.

Decentralization.

326. In the proposals for the reconstruction of the machinery of Government which we have outlined in the foregoing paragraphs, we have urged the grouping of departments under non-technical heads in order to reduce overhead expenses and to achieve at the same time a more rapid and efficient transaction of business, and we have further recommended the adoption of an "establishment" system in order to obviate the swelling of departmental staffs by the constant addition of further highly paid and pensionable technical officers, who, however capable they may be, rapidly present a financial burden which the Colony cannot carry.

327. In order, however, to complete the picture of reconstruction which we wish to recommend, it becomes necessary to obtain a fresh outlook on the activities of some of the main spending departments, e.g. Medical, Education, Agricultural and Public Works, etc., and we may perhaps best describe our meaning by the expression "decentralization", or the more definite partial transfer of the activities of these departments from a departmental to an administrative basis.

328. It is sometimes forgotten that, for any time which we need now take into consideration, the Administrative Officer must remain the spearhead of the attack on native backwardness and ignorance of all those matters covered by the activities of these departments. As mentioned above, the development of these services has not in the past proceeded on an evenly balanced basis; ill-considered expenditure has been incurred, unnecessarily large staffs employed, and sense of proportion lost as the result of relying to too great an extent on the enthusiastic advice of the technical experts rather than on the necessarily more balanced judgment of the trained administrator.

329. Moreover, we feel that the administrator, who of necessity must be held primarily responsible for the advancement and general betterment of the natives of whom he is in charge, is insufficiently in control of the various educational and developmental methods employed for that purpose. This has led to lack of co-operation, duality of control, overlapping, and dissipation of effort, as described in paragraph 316 above. (If the language of exaggeration may for a moment be employed to emphasize the point, one visualizes a swarm of technical advisers and instructors, each section in their special capacity to too great an extent a law unto themselves, loosed upon the unfortunate native from every direction, with the administrative officer, on whom quite wrongly a whole-time job of tax-collecting and office work has devolved, endeavouring with insufficient powers to introduce some sort of coherence and continuity of effort.)

330. We have furthermore had it stated in evidence that the Provincial Commissioners, on whom the responsibility of the proper co-ordinated administration of the Provinces should rest, have no knowledge of what is being spent on various services in their Provinces. Were Provincial Commissioners taken into the confidence of the Central Government, as they should be, we are convinced that further economies would be suggested, and also that plans for a more co-ordinated developmental programme would be forthcoming.

331. We are aware that instructions have been and are from time to time issued by Your Excellency insisting upon the fullest co-operation between departmental and administrative officers, and we have no doubt that the officers of the Service endeavour, as far as is humanly possible, to carry out such instructions; but we are also convinced that under the existing system these are counsels of perfection, and that in fact there is a real and serious loss of both efficiency and economy in the present dual system of departmental and administrative control.

332. We therefore recommend that all technical officers engaged in field work should be posted direct to Provincial Administrations, and that Government should seriously consider whether the funds necessary to enable them to carry out their functions should be budgeted for provincially, thus giving to Provincial Commissioners the necessary financial authority for the execution of their work. Such a system would give Provincial Commissioners and District Officers a fuller measure of control, as should be the case, of the departmental activities in their respective provinces and districts. We do not

for a moment suggest that Provincial Commissioners should endeavour to instruct an engineer how to build a bridge, a doctor how to perform an operation, or an agricultural officer how to grow crops, but we do urge the necessity, if ordered progress is to be achieved and maintained, of co-ordinating the work of these and other technicians under the control of the officers responsible for the administration of provinces and districts.

333. We further visualize the senior officers of each department as posted to provinces, in addition to the normal performance of their professional work, becoming to a greater extent than is the case at present the Provincial Commissioners' principal technical advisers on the work of their departments in the provinces.

334. Although in paragraph 332 above we recommend the consideration of some extension of the principle of provincial budgeting, we wish to make it clear that we would regard it as inadvisable that this extension should proceed beyond the point necessary to give the Provincial Commissioners the necessary financial authority for the performance of the departmental activities which the adoption of our proposals would bring under their control. To go beyond this point might possibly result in the building up of extensive provincial secretariats, thereby merely transferring the heavy overheads, which we are so anxious to reduce, from the departmental to the administrative head.

335. In this connection we wish to make it clear that our recommendations do not suggest that "research" should be carried out under the provincial system. Officers engaged on research problems should not endeavour to combine research with instructional or developmental work. We are convinced that research, so important in a new and only partially developed country, must be centrally co-ordinated. Thus, the adoption of our proposals would still leave such matters as central hospitals, research institutes, the agricultural board, etc., under the direct control of directors of departments. But it will be plain that the combined effect of our proposals would be to relieve technical directors and heads of departments almost entirely of their present very onerous burden of administrative duties and release them for the work of inspection of the services, co-ordination of policy, and advising Government on technical matters, which is their proper function.

336. As has been already stated, it would be difficult to assess precisely what reduction of expenditure would result from the adoption of these proposals, since their repercussions

would open up the possibility of economy in so many different directions. It must be remembered, however, that the attitude of the technical expert towards increased developmental work must of necessity be the finding of more technical work to be performed by an increased technical staff; while the attitude of the administrator, on the other hand, will be to make use of any funds available for actual development work while employing the minimum possible staff—an aspect of the matter which coincides precisely with our proposals for the adoption of a minimum establishment system for the personnel of technical departments.

337. We are confident, therefore, that the net result would be not only the more efficient and smoother working of the whole machinery of Government but also the reduction of the expenditure of Government to well within the £3,000,000 mark referred to in Chapter III above.

Part II—Comments of Mr. Pandya on Part I.

338. I wish to record my emphatic dissent from the viewpoint expressed in Part I by other members of the Committee. It is contended that reorganization by grouping departments under non-technical heads or ministers would lead to economy. I am convinced that the reverse would be the case; instead of reducing expenditure such a reorganization would increase expenditure. It would be necessary to continue to employ technical heads of various departments and over a group of such departments would be placed an administrative officer or a public man under the title of minister or portfolio holder, who would require his own secretariat to coordinate the activities of the departments under him and to keep him in touch with the activities of those departments. The reports which the technical heads now submit to the Secretariat would be submitted to the minister who may again have to submit the same to Government and in this way it is clear that expenditure would be increased.

339. If it is contended that such a non-technical head could effect economies in various departments, in my opinion exactly the same economy could be effected now by any officer or committee detailed for that purpose. What is proposed to be done by a portfolio holder at a future date, could, if it is possible to be done, be done forthwith. If existing staffs are fully employed now, they cannot be reduced without curtailment of services; if they are not fully employed they can and should be reduced now without awaiting any grouping of departments.

340. It is suggested that such portfolio holders would be responsible heads who could, and would, take independent decisions without reference to the Colonial Secretary or the Governor. If this is the case it is natural that the scales of salaries for such officers would be high and at the same time technical officers under them would have to be maintained at the same level of pay as they are drawing to-day. It should be remembered that these technical heads are being paid to-day on their technical qualifications rather than on their administrative ability and because the administrative work is taken out of their hands it does not by any means follow that their scales of salary could be reduced. If the scales are to be lowered the reductions could be done even to-day without engaging extra staff to act as heads of groups of departments.

341. If work could be materially reduced by allowing individual heads of departments to take independent decisions, I can see nothing to prevent that system being put into force even at present with certain safeguards provided their powers were clearly defined.

342. These and other arguments against the proposal for a reorganization of Government on the lines suggested are so obvious that I do not think it is necessary to deal with them at any length, but, in my opinion, the real reason at the back of this proposal for portfolio holders is to facilitate a further political advance for the European Unofficial community. If this is really the case it should not be advanced in the guise of an economy measure which it most definitely is not. A case for such a political advance should be advanced independently by European political institutions so as to allow it to be discussed on its own merits. In my opinion the country is not yet ready for any type of further political advance. As far as the views of the Indian community are concerned, they are definitely opposed to any such political advance which would confer greater power on the European unofficials in this country, and I agree with them.

343. With regard to the portions of Part I dealing with permanent establishments and decentralisation in the form of a greater degree of provincial control of technical departments, I am in general agreement with the views expressed therein. If these measures are taken there would be no necessity to have any reorganization scheme involving grouping departments under ministers.

CHAPTER X.

CONCLUSION.

344. The total effect of the reductions recommended by the majority of us in Chapters 4, 6 and 7 is to reduce expenditure, on the basis of the sanctioned Estimates for 1935, by a sum of £133,423, but this does not include any increased expenditure on pensions and gratuities which is a necessary corollary of reductions in the number of pensionable officers.

345. We find it impossible to give an accurate estimate of the increase which would be attributable to our recommendations as distinct from and in addition to the increase in the Pensions Vote which will normally take place. As an instance of the difficulty involved in estimating, where a reduction in the establishment of any post is made, the pension payable to the retrenched would vary considerably according to whether the officer selected for retrenchment was on the maximum or minimum of the salary scale of his post. We consider, however, that it is reasonable to state, as a guess, that the immediate capital expenditure on commuted pensions should not exceed £20,000, and the annual increase in the Colony's pension commitments should not exceed £7,500.

346. We have to the best of our ability completed an arduous and unenviable task. We wish to point out, however, that we do not consider that the reductions which we have recommended represent all the reductions which ever can or should be effected in the expenditure of the Colony. Adjustments must be made from time to time, so that expenditure may be brought and kept within the Colony's spending capacity both now and in the future.

347. The important need to-day, as we have pointed out in paragraphs 12 and 17 is the immediate adoption of measures which will ensure the early restoration of the very unsatisfactory cash position, and which will also ensure that there shall be available a margin of revenue for urgently needed production purposes. The Colony cannot indefinitely rely solely on applications to the Colonial Development Fund or on the flotation of loans for all developmental work. Furthermore, as times improve, any tendency for expansion of expenditure with expanding revenue must be rigorously checked, so that, when another depression comes the surplus shall be such as not only will avoid the necessity for the imposition of additional taxation, but will afford some assistance to the struggling community through reduction in taxation.

348. We desire to record our high appreciation of the services of Mr. Troughton as Secretary of the Committee. He displayed great assiduity and capability in the preparation of memoranda, and his valuable assistance in all matters has materially lightened the task of the Committee.

F. CAVENDISH-BENTINCK.
ROBERT DE V. SHAW.
J. B. PANDYA.

Note by the Acting Colonial Secretary.

349. Although I attended and presided over all the meetings of the Select Committee subsequent to the 20th of March, the Report does not bear my signature for the reason explained below.

350. In regard to the major issues dealt with in the Report, such as the Colony's Public Debt, Terms of Service, Reorganization, Financial Relations with the Railway, etc., I consider that it would not be consonant with my official position to express any opinion at this stage or until the issues have received much fuller examination than the Committee has been able to give them.

351. Speaking generally, I consider that of the many proposals considered by the Committee those recommended for adoption in Chapter IV would effect least damage to the machinery of Government and the minimum curtailment of services.

352. In regard to the alternative recommendations in Chapter VII, "Local Government in Rural Areas", I am of the opinion that the reduction of £15,000, which the Committee was unanimous in recommending should be made in the present expenditure on the Colony's roads, is more likely to be achieved by the adoption of the proposals in Part I, viz. to centralize the control of such roads under the Director of Public Works, than by the adoption of the proposals in Part II.

353. I most cordially endorse the Committee's commendation of the valuable services of Mr. Troughton as Secretary of the Committee.

H. G. PILLING,
Acting Colonial Secretary.

J. F. G. TROUGHTON,
Acting Clerk of the Legislative Council.
Nairobi,
22nd June, 1935.

APPENDIX I
SCHEDULE SHOWING THE FINANCIAL EFFECT OF THE COMMITTEE'S
DEFINITE RECOMMENDATIONS

	Reduction
	£
HEAD I.—HIS EXCELLENCY THE GOVERNOR :	
Total reduction recommended (paragraph 37)	2,300 (1)
HEAD II.—ADMINISTRATION :	
Reduction of one District Officer at Kitale (para. 40)	350
Reduction of one District Officer at Kajiado (para. 41)	350
Minor savings from closing Kajiado Station (para- graph 41), say	200
Minor savings from closing Kipini Station (para- graph 42), say	200
Total reduction recommended	1,100
HEAD III.—AGRICULTURE :	
Total reduction recommended under Reorganization Scheme (paragraph 49)	15,871
HEAD IV.—AUDIT :	
Total reduction recommended (paragraph 54)	1,000
HEAD V.—COAST AGENCY :	
Total reduction recommended (paragraph 56)	510
HEAD VII.—CUSTOMS :	
Total reduction recommended (paragraph 61)	1,000 (2)
HEAD VIII.—EDUCATION :	
Abolition of post of Supervisor of Technical Education (paragraph 67)	960
Abolition of two posts of Inspectors of Schools (para- graph 68)	1,430
Replacement of four European Clerks by Africans (paragraph 69)	1,290
Abolition of issue of free books (paragraph 70)	400 (3)
Saving effected by closing of Department's Store (paragraph 71)	500
Saving effected by closing European Primary School at Kilimani (paragraph 73)	610
Saving effected by transfer, or closing the Government African School at Waa (paragraph 74)	2,026
Adjustment of salary scale of Headmaster of Arab School at Shimo-la-Tewa (paragraph 75)	200
Abolition of one post of Education Officer in Arab Education (paragraph 75)	475
Reorganization and re-grading of Technical Staff under African Education (paragraph 76)	3,000
Abolition of payment of Hut and Poll Tax in respect of pupils in African Schools (paragraph 77)	400
Total reduction recommended	11,291
Less Proposed New Services (paragraph 65)	1,600
Net reduction recommended (paragraph 78)	9,691
<i>Carried forward</i>	£ 31,472

(1) If Mr. Pandya's and Mr. Hemsted's recommendations are accepted, the reduction would be £1,000 only, and would only take effect on the appointment of a new Governor.

(2) This figure would be modified, to an indeterminate extent, by adoption of Mr. Pandya's suggestions.

(3) Mr. Pandya dissents from this recommendation. If his views are endorsed, the total reduction must be decreased accordingly.

APPENDIX I—*Contd.*

SCHEDULE SHOWING THE FINANCIAL EFFECT OF THE COMMITTEE'S DEFINITE RECOMMENDATIONS

	<i>Brought forward</i>	Reduction
	£	£
HEAD X.—FOREST DEPARTMENT :		
Reduction recommended under Revised Estimates in Appendix 2 (see paragraph 83)	4,158	
HEAD X.—GAME DEPARTMENT :		
Abolition of one post of Assistant Game Warden (paragraph 85)	600	
Abolition of post of Temporary Game and Vermin Control Officer (paragraph 85)	500	
Reduction in Local Transport and Travelling Vote (paragraph 85)	150	
Total reduction recommended	1,250	
<i>Less</i> increase under "Expenses of Game and Vermin Control (paragraph 85)	250	
Net reduction recommended		1,000
HEAD XV.—LOCAL GOVERNMENT, LANDS AND SETTLEMENT :		
Abolition of post of Local Government Inspector (paragraph 86)	840	
Abolition of one post of District Surveyor (para. 87)	920	
Putting into abeyance one further post of District Surveyor (paragraph 87)	840 (1)	
Abolition of two posts of Forest Surveyor (para. 91)	987	
Abolition of post of Survey Records Officer (para. 87)	600	
Total reduction recommended	4,187	
<i>Less</i> increases recommended (paragraphs 88 and 89)	270	
Net reduction recommended (paragraph 92)		3,917
HEAD XVI.—LOCAL GOVERNMENT CONTRIBUTIONS :		
Reduction in consolidated grants to Nakuru and Eldoret Municipalities (paragraph 94)	800	
Abolition of District Councils in their present form (paragraph 251)	31,920 (2)	
		32,720
<i>Less</i> increased expenditure on Public Works Department and Public Works Recurrent (paragraph 251)		16,920 (2)
		15,800
<i>Less</i> one-half the cost of Child Welfare Work in Nairobi (paragraph 102)		1,300
Net reduction recommended		14,500
<i>Carried forward</i>	£	£
		55,047

(1) This recommendation would not take effect until the post becomes vacant—*vide* paragraph 92.

(2) Major Cavendish-Bentinck and Sir Robert Shaw dissent from the recommendation. Under their alternative proposal (see paragraph 283) they express themselves satisfied that, by the adoption of their recommendations, a total genuine saving in excess of £15,000 could be made on the combined heads.

APPENDIX I—*Contd.*

SCHEDULE SHOWING THE FINANCIAL EFFECT OF THE COMMITTEE'S DEFINITE RECOMMENDATIONS

	Reduction
	£
<i>Brought forward</i> .. £	55,047
HEAD XVII.—MEDICAL DEPARTMENT :	
General reduction recommended (paragraph 98)	5,817
HEAD XVIII.—MILITARY :	
General reduction recommended (paragraph 112) .. 20,000 (1)	
Abolition of Kenya Defence Force (paragraph 114) .. 4,112 (2)	
	24,112
<i>Less increased cost of Police (paragraph 108) ..</i>	<i>4,000</i>
	20,112
HEAD XX.—MISCELLANEOUS SERVICES :	
Abolition of guarantees in respect of losses on Railway Branch Lines (paragraph 240) 21,353	
Cessation of contribution to Inter-territorial Languages Committee (paragraph 119) 603	
	21,956
HEAD XXI.—PENSIONS AND GRATUITIES :	
Cessation of payment of proportion of Pensions payable to Railway Servants (paragraph 240), say ..	14,162 (3)
HEAD XXIV.—PRINTING AND STATIONERY :	
Abolition of post of Assistant Government Printer (paragraph 142) 720	
Reduction in emoluments of Government Printer (paragraph 142) 280	
	1,000 (4)
HEAD XXV.—PRISONS :	
Transfer of salaries of Detention Camp Overseers to Administration Votes (paragraphs 145 and 146) 630	
Deletion of Item "Expenses of Administration of Juvenile Offenders Ordinance" (paragraph 147) 150	
Savings on Approved Schools (paragraph 150) .. 630	
Reduction of appropriation for Prisoners' and Detainees' Food (paragraph 151) 1,000	
	2,410
<i>Carried forward</i> .. £	120,504

(1) The net reduction might be modified by an alteration in the method of computation of the inter-territorial reimbursement (paragraph 113).

(2) Major Cavendish-Bentinck and Sir Robert Shaw dissent from this recommendation. Mr. Pandya and Mr. Hemsted might be prepared to agree to expenditure on a Volunteer Force (paragraph 114).

(3) Expenditure under this Head of Estimates would be increased by acceptance of our other recommendations (paragraph 345).

(4) In paragraph 137 a reduction of £5,000 is recommended on the understanding that quantity of work is put out to contract. As it is presumed that a substantial proportion of this sum would be utilized for payment to contractors, no further reduction is shown in this Appendix.

APPENDIX I—*Contd.*

SCHEDULE SHOWING THE FINANCIAL EFFECT OF THE COMMITTEE'S DEFINITE RECOMMENDATIONS

	Reduction
	£
<i>Brought forward</i>	<i>£</i> 120,504
HEAD XXVII.—PUBLIC WORKS DEPARTMENT.	
HEAD XXVIII.—PUBLIC WORKS RECURRENT:	
Automatic savings (paragraph 157) .. .	1,904
Increase in Reimbursement from Loan (paragraph 158)	2,000
Reimbursement from Colonial Development Fund (paragraph 160) .. .	2,500
Economies in the Central Workshops and Timber Seasoning Branch (paragraph 161) .. .	511
Abolition of one post of Inspector of Water Supplies (paragraph 162) .. .	500
Reduction in Stores Expenditure to be effected at the discretion of the Director (paragraph 163) ..	600
Cessation of payment of rent for Education Depart- ment Store (paragraph 71) .. .	100
Total reduction recommended .. .	8,115
HEAD XXIX.—REGISTRAR-GENERAL'S DEPARTMENT:	
Abolition of post of Assistant Registrar-General (paragraph 196) .. .	720
Reduction of emoluments of Registrar-General (para- graph 197) .. .	330
Abolition of one post of Non-European Clerk (para- graph 198) .. .	100
Adjustment of salary paid to European Learner (paragraph 198) .. .	63
Amalgamation of Registration of Births, Marriages and Deaths in the Statistical Dept. (paragraph 209)	534
Total reduction recommended (paragraph 199) .. .	1,747
HEAD XXXI.—SECRETARIAT AND LEGISLATIVE COUNCIL:	
Abolition of one post of European Clerk (para. 201)	318
Reduction in rate of allowances to Unofficial Members of Councils (paragraph 202), say .. .	750
Total reduction recommended .. .	1,068
HEAD XXXII.—STATISTICAL DEPARTMENTS:	
Total reduction recommended (paragraph 209) .. .	1,636
HEAD XXXIII.—TRADE AND INFORMATION OFFICE:	
Colony's approximate share of reduction recom- mended (paragraph 214) .. .	353 (1)
GRAND TOTAL .. .	£ 133,423

(1) If Mr. Pandya's recommendations (paragraph 216) were accepted, the reduction in this Head would be substantially more. The figure of £353 is the Colony's proportion of the reduction of £600 recommended in the combined Colony's and Railway's contributions.

APPENDIX 2
FOREST DEPARTMENT—ESTIMATE OF EXPENDITURE FOR 1936

PERSONAL EMOLUMENTS		£
1 Conservator of Forests (£1,200)	.. .. ..	1,200
1 Senior Assistant Conservator (£720-30-840)	.. .. ..	840
7 Assistant Conservators (£480-20-600-30-720)	.. .. ..	4,651
11 Foresters (£300-18-390-18-480-20-500)	.. .. ..	5,468
1 Learner (Forester (£84-18-120)	.. .. ..	93
1 Accountant (£426-18-480-20-600)	.. .. ..	600
 Total European Personal Emoluments	.. .. ..	12,852
8 Assistant Foresters, 1st Grade (£120-12-240)	.. .. ..	1,689
2 Assistant Foresters, 2nd Grade	.. .. ..	133
6 Clerks .. .. ..	.. .. ..	1,338
Forest Guards, Spearmen, etc.	.. .. ..	2,960
 Total Non-European Personal Emoluments	.. .. ..	6,120
 TOTAL PERSONAL EMOLUMENTS	.. .. ..	18,972
OTHER CHARGES		
Reafforestation	.. .. ..	1,370
Nurseries	.. .. ..	850
Protection and Upkeep of Boundaries	.. .. ..	750
Working Plans, Surveys and Demarcation	.. .. ..	230
Exploitation	.. .. ..	500
Upkeep of Forest Stations and Roads	.. .. ..	510
Upkeep of Nairobi Arboretum	.. .. ..	150
Purchase and Upkeep of Uniforms	.. .. ..	130
Purchase and Collection of Seeds	.. .. ..	180
Contingencies	.. .. ..	100
Purchase of Live Stock	.. .. ..	70
Passages	.. .. ..	760
Local Travelling and Transport	.. .. ..	1,826
Travelling Allowance	.. .. ..	230
Contribution to Imperial Forestry Institute	.. .. ..	310
Telephones	.. .. ..	52
Purchase of Foodstuffs for Labourers	.. .. ..	300
 TOTAL OTHER CHARGES	.. .. ..	8,318
 GRAND TOTAL	.. .. ..	£ 27,290

APPENDIX 3
REVENUE AND EXPENDITURE ON ROADS
(See PARAGRAPH 271)

EXPENDITURE	1929	1930	1931	1932	1933
Public Works Recurrent ..	£ 69,747	£ 84,991	£ 75,978	£ 63,770	£ 46,620
Native Services	—	—	—	—	16,155
Tools and Plant	10,447	9,933	3,208	4,497	4,445
Public Works Extraordinary	68,256	24,922	1,272	77	4,647
Grants, Nairobi	398	3,616	2,980	1,814	1,091
	10,409	10,834	8,426	8,426	8,300
Mombasa	286	2,121	556	304	580
	2,750	3,503	3,520	2,626	2,450
District Councils	35,481	36,001	36,412	34,598	32,186
Vehicles	494	763	1,230	588	832
Township Roads	—	533	543	510	396
Flood Damage	—	31,285	—	—	—
Special, Eldoret	3,331	750	250	—	—
Special, Nairobi	4,272	9,200	984	—	—
Road Plant, D.C.'s	7,108	1,365	—	—	—
Additional Grants	—	14,613	7,006	—	—
Special, Mombasa	—	397	—	—	—
Nakuru Township	484	—	—	—	—
	213,463	234,827	142,365	117,210	117,702
£825,567					
REVENUE					
Customs	105,276	94,917	81,572	69,557	77,798
Motor Licences	47,070	51,264	52,105	50,164	49,343
Drivers' Licences	—	—	—	2,305	2,398
Vehicle Licences	—	—	—	—	—
Petrol Tax	23,555	31,693	27,260	32,205	53,052
Carriage of Goods Ordinance	—	—	1,290	1,450	—
	175,901	177,874	162,227	155,681	182,591
			£854,274		

APPENDIX 4
TENTATIVE SUGGESTED GROUPING OF DEPARTMENTS
(See CHAPTER IX)

HEAD OF ESTIMATES	1935 Estimated Expenditure			Rough Estimate of Overhead Administration Cost of Individual Department
	Gross	Net	Non-Recurrent	
I. His Excellency the Governor .. .	£ 14,869	£ 14,869	—	—
I.—COLONIAL SECRETARY				
II. Administration .. .	222,898	222,423	850	4,108
VI. Conference of E.A. Governors	955	955	—	—
XXXI. Legislative Council .. .	4,820	4,820	—	—
Native Affairs .. .	1,450	1,450	—	—
Native Development .. .	—	—	—	—
Foreign Affairs .. .	—	—	—	—
XXXI. Secretariat .. .	17,177	17,177	—	—
	—	—	—	Impossible to estimate
II.—PORTFOLIO OF JUSTICE AND INTERNAL AFFAIRS				
VIII. Education .. .	177,855	176,905	100	14,109
XIII. Judicial .. .	30,960	30,960	—	—
XIV. Legal .. .	8,278	8,278	—	—
XVII. Medical .. .	199,817	193,355	750	9,495
XI. Government Analyst .. .	1,659	1,659	}	—
XVIII. Military .. .	129,522	81,758		
XXII. Police .. .	134,773	127,732	78	5,765
XXIV. Printing and Stationery ..	28,311	28,311	—	3,273
XXV. Prisons .. .	54,524	54,524	1,704	2,463
XXXII. Native Registration (part of) Registration of Domestic Servants .. .	8,288	8,288	}	900
	1,427	1,427		
Probably not less than .. .	—	—	—	44,468
III.—PORTFOLIO OF FINANCE				
IV. Audit .. .	19,978	14,608	—	—
VII. Customs and Excise .. .	48,603	29,039	—	—
XII. Interest and Unfunded Debt	4,224	4,224	—	—
XX. Miscellaneous Services (part of) .. .	25,592	23,826	1,092	—
XXI. Pensions and Gratuities ..	209,150	208,409	—	—
XXVI. Public Debt Funded .. .	1,043,252	183,275	—	—
XXX. Rent and Interest, Zanzibar ..	16,000	16,000	—	—
XXXIV. Treasury .. .	27,968	26,176	—	—
XXV. Colonial Development Fund ..	5,384	906	—	—
Central Revenue Office ..	—	—	—	—
	—	—	—	Impossible to estimate

APPENDIX 4—*Contd.*
TENTATIVE SUGGESTED GROUPING OF DEPARTMENTS

HEAD OF ESTIMATES	1935 Estimated Expenditure			Rough Estimate of Overhead Administration Cost of Individual Department
	Gross	Net	Non-Recurrent	
IV.—PORTFOLIO OF AGRICULTURE AND LANDS	£	£	£	£
III. Agriculture	125,871	125,871	628	18,131
IX. Forests	31,448	31,448	—	1,800
X. Game	8,596	8,596	—	1,300
XV. Survey and Registration ..	28,532	—	—	—
XX. Rebate on Paraffin for Agricultural purposes (part of)	2,200	—	—	—
Probably not less than ..	—	—	—	21,231
V.—UNOFFICIAL PORTFOLIO OF COMMERCE, TRANSPORT, P.W.D., AND MINES				
V. Coast Agency	5,231	3,161	—	700
XV. Local Government (part of)	5,756	5,376	—	5,858
XVI. Local Government Contribution	83,171	72,291	—	—
XIX. Mining and Geological ..	11,600	11,600	—	3,508
XX. Civil Aviation (part of) ..	17,300	17,300	—	—
XX. Railway Branch Line Guarantees (part of) ..	21,353	21,353	—	—
XXIII. Post Office and Telegraphs ..	226,693	120,994	4,250	13,278
XXVII. Public Works	82,671	80,571	11,640	14,857
XXVIII. Public Works Recurrent ..	114,752	114,752	—	—
XXXII. Statistical Dept. (part of) ..	279	279	—	500
XXIX. Registrar-General	6,155	6,155	—	500
XXXIII. Trade and Information Office ..	4,536	4,536	—	—
Probably not less than ..	—	—	—	39,201

**Report of the Dairy Industry
Enquiry Committee**

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**REPORT OF THE DAIRY INDUSTRY ENQUIRY
COMMITTEE.**

The expenses incurred in connection with the Committee were approximately £181, and the cost of printing and publishing this report is estimated by the Government Printer at £30. These figures take no account of the time spent by officers of Government not specially seconded for service with the Committee.

GOVERNMENT NOTICE No. 287.

APPOINTMENT.

It is notified for public information that His Excellency the Acting Governor has been pleased to appoint the following Committee—

Mr. H. B. Hamilton,
Capt. E. Caswell Long,
Capt. F. O'B. Wilson, and
The Director of Agriculture,

with the following terms of reference—

- (a) to enquire into the dairy industry of the Colony and to formulate a scheme for the complete control of the production and distribution of milk products, due regard being given to the interests of the consumer, to vested interests, and to the best methods of ensuring an adequate return to the producer;
- (b) to report on the potential expansion of the export industry;
- (c) to enquire into the desirability and/or feasibility of the institution of central milk depots in municipalities; and
- (d) for the purpose of this enquiry to take evidence from interested parties.

Members of the public are invited to give verbal evidence or submit memoranda to the Committee.

Memoranda and requests to give verbal evidence should be submitted to the Secretary, Board of Agriculture, Nairobi.

Nairobi,

This 12th day of April, 1935.

JUXON BARTON,
for Acting Colonial Secretary.

Report of the Dairy Industry Enquiry Committee

YOUR EXCELLENCY,

We have the honour to submit the following report on our inquiry into the dairy industry.

EVENTS LEADING UP TO APPOINTMENT.

2. In the first place, it seems desirable to recall the progress of the somewhat protracted discussions which led up to our appointment. At a meeting of the Animal Industry Standing Committee of the Board of Agriculture, held on the 1st March, 1934, a memorandum prepared by the Directors of the Kenya Co-operative Creamery Ltd. was read. This memorandum represented that the Butter Levy Ordinance no longer fulfilled its purpose in equalizing the positions of the non-co-operator and the co-operator. It was submitted that when the Ordinance was passed, the Creameries were selling about one-third of their butter production locally at Sh. 1/50 per pound wholesale, and exporting the remainder at about 80 cents per pound. As only the Creameries could export, owing to the necessity for standardization of the product and for cold storage facilities, the Creameries were bearing the whole burden of export and an equalizing factor was necessary, which was provided by the cess of 25 cents per lb. levied under the Ordinance. At the date of the memorandum, however, not only did the non-co-operators sell their butter locally at prices varying from equality to considerably below those of the Creameries, but the position as between co-operators and non-co-operators had been completely changed by a reduction in the prices ruling for butter on overseas markets. It was stated in the memorandum that the Creameries were now selling about one-fourth of their production locally at Sh. 1/25 per lb. wholesale and exporting the balance at less than 40 cents per lb., the position of the non-co-operators remaining practically as before. The Creameries requested that legislation be introduced to increase the butter levy to 50 cents per lb., or, if this proposal were not acceptable, to provide for the selling of butter on the same lines as that of wheat under the Sale of Wheat Ordinance. They also urged that the Butter Levy Ordinance, 1931, be amended, so as not to exempt from the levy butter exported to Tanganyika Territory and Uganda.

3. Arising out of this memorandum, the following resolutions were passed by the Standing Committee :—

“That Government be requested to amend section 11 of the Butter Levy Ordinance by deletion of the words ‘butter manufactured in the Colony and exported to Uganda and Tanganyika Territory’.”

“That Government be requested to introduce legislation to increase the cess under the Butter Levy Ordinance from cents 25 to cents 50;”

or alternatively,

“That Government be requested to introduce legislation on the lines of the Sale of Wheat Ordinance to bring about the compulsory co-operative marketing of all butter manufactured in the Colony, through a Butter Control Board, working on the lines of the Wheat Board.”

4. These resolutions were referred to the Butter Levy Advisory Board; and it was subsequently decided that, before any decision was taken, the possibility of substituting for the cess a compulsory co-operative marketing scheme to cover *all milk products* should be fully explored.

5. This proposal was considered by a sub-committee of the Board of Agriculture, which pointed out that the organized marketing of all dairy products would present many difficulties. The sub-committee supported the scheme of co-operative marketing and proposed that a Dairy Products Control Board be set up and it be made compulsory for all dairy produce to be sold through a single selling agency. Immediate application was proposed in the case of butter and subsequent application on the recommendation of the Board to other forms of dairy produce. The proposals were embodied in a draft Bill.

6. The draft Bill was considered at a meeting of Executive Council on the 18th January, 1935, and a sub-committee appointed to examine its provisions. After taking evidence from certain persons interested in the dairy industry, the sub-committee observed that the future position of export of butter was not clear; that although an agency would have no difficulty in accepting all butterfat, no agency could undertake to accept all supplies of butter offered to it; that in consequence complicated issues were involved in districts remote from creameries; that control could not be effective until all dairy produce was provided for; and that various vested interests were involved. It was, therefore, recommended that the Bill

in question should receive detailed investigation by a sub-committee of the Board of Agriculture, with co-opted members representing all sections of the industry.

7. A Dairy Industry Control Sub-Committee of the Board of Agriculture was thereupon appointed and met on the 19th March, 1935. A list of persons representative of all sections of the dairy industry was drawn up and these persons were invited to attend at the next meeting of the sub-committee. This meeting was held on the 1st April, 1935, and was attended by the following, in addition to the sub-committee :—

The Hon. Director of Agriculture.
 Capt. F. O.'B. Wilson, representing Milk Producers.
 Mr. E. B. Hutton, representing Milk Distributors.
 Mr. W. B. Thompson, representing Cheese Producers.
 Mr. Mervyn Ray, representing Milk and Farm Butter Producers.
 Mr. H. J. Sankey, representing Butter and Milk Producers outside the Kenya Co-operative Creamery Ltd.
 Mr. G. S. Hunter, representing Kenya Co-operative Creamery Ltd.
 Capt. E. Caswell Long, representing Kenya Co-operative Creamery Ltd.

8. Among other resolutions the following was passed :—

"(c) That this meeting agrees that an inquiry be conducted as suggested and that it be undertaken by a Committee of four persons, namely :—

The Hon. Director of Agriculture,
 Mr. H. B. Hamilton,
 Capt. E. Caswell Long,
 Capt. F. O'B. Wilson, C.M.G."

9. We, the above-named, were thereupon appointed by Government Notice No. 287 of 12th April, 1935, as a Committee, with the terms of reference as given on page ii of this report.

10. The Committee decided to publish a notice in the local press, inviting those interested in the dairy industry to submit their considered views in writing and to indicate if they desired to give evidence before the Committee. This notice was sent also to Farmers' Associations, Chambers of Commerce and other bodies.

11. In response to the notice thirty-four memoranda were received, and authors of some of these memoranda gave verbal

evidence before us. In order to obtain evidence from representatives of all interests, certain other persons were asked to attend. We desire to extend our thanks for the help thus afforded us by authors of memoranda and witnesses who gave evidence before us.

12. The Committee sat on seven days during April, two days during May, two days during June, four days during September, two days during October and one day during November.

GENERAL REVIEW OF THE DAIRY INDUSTRY.

13. Although the facts relating to the dairy industry are well known and the position in which it finds itself to-day is well understood by those interested in the industry, it seems desirable to preface our recommendations with a brief review in order to clear up any misconceptions that may exist and to serve as a background for our proposals. Milk and milk products are produced for sale mainly by European farmers, but also to some extent by non-European cattle owners. According to an analysis of the Agricultural Census of 1932, out of a total of just over 2,000 separate holdings in occupation by Europeans, some 250 were classified as dairy farms, and a further 250 farms were concerned in more or less degree with the sale of dairy products. Since that time we believe that the number has increased considerably. Many native owners of cattle sell milk and prepare ghee in the Native Reserves, and together with a few Somali and Indian dairy-men, supply liquid milk to municipalities.

EXPANSION OF THE DAIRY INDUSTRY.

14. The rise of the dairy industry is shown in the statistics given in detail in Appendix III of this report. According to the Agricultural Census the annual sale of liquid milk for consumption from European farms increased from 250,000 gallons in 1921 to 1,027,375 gallons in 1929-30. From returns received from municipalities we have estimated the supply of milk from all sources in 1934 at 1,650,000 gallons (See Appendix III, Table IX.) The export (including transfers to Uganda) of butter surplus to Kenya's requirements has risen from 24 cwt. in 1921 to 12,099 cwt. in 1934. The increase of recent years is all the more remarkable in view of the depredations of locusts and the severe droughts which have occurred. On the evidence placed before us, we cannot escape the conclusion that a rapid increase of production will follow on the resumption of normal conditions, and in fact, to a large extent, it has already done so. We wish to emphasize the urgency of the problem, so that early action may be taken.

ANNUAL SALES AND MARKETS.

15. There are three main markets for milk products : Kenya, near and neighbouring territories, and the United Kingdom market. The following figures for the year 1934 indicate the relative importance of these markets. The consumption of liquid milk was in the neighbourhood of 1,650,000 gallons. The production of butter for sale by creameries and by European farm butter-makers was 2,018,001 lb., of which 749,041 lb. was consumed entirely in Kenya and Uganda, 411,040 lb. exported to nearby territories, and 857,920 lb. exported to the United Kingdom. (These figures are derived from Customs returns and butter levy statistics, and we believe that the latter result in an appreciable understatement by reason of evasion of the Ordinance.) Cheese production for sale was 280,003 lb., of which 67,424 lb. were exported, the balance of 212,579 lb. being consumed in Kenya and Uganda. Net imports of ghee into Kenya and Uganda, all from nearby territories, amounted to 7,930 cwt., to which must be added a large quantity of ghee produced by native cattle owners and sold in Kenya.

UTILIZATION IN TERMS OF LIQUID MILK.

16. A better appreciation of the relative importance of these products is obtained by assessing the quantities of each in terms of milk. Omitting ghee the utilization of dairy products in 1934 was as follows :—

	Equivalent Gallons of Milk	Per cent
MILK—		
Consumed in Kenya—1,650,000 gallons...	1,650,000	26·7
BUTTER—		
Consumed in Kenya and Uganda, 749,041 lb.	1,588,749	25·3
Exported to nearby territories, 411,040 lb.	871,405	13·9
Exported to the United Kingdom, 857,920 lb.	1,818,790	29·6
CHEESE—		
Consumed in Kenya and Uganda, 212,579 lb.	212,579	3·4
Exported to nearby territories, 62,944 lb.	62,944	1·0
Exported to the United Kingdom, 4,480 lb.	4,480	0·1
	6,208,947	100·0

Although the consumption of Kenya dairy products in Kenya and Uganda and neighbouring territories has been increasing steadily, production has been increasing at a greater rate than local consumption, with the result that there has been a considerable annual increase in the balance of production which is marketed in the United Kingdom.

BUTTER PRICES IN THE UNITED KINGDOM.

17. The price of butter on the London market fell considerably after the date when the Butter Levy Ordinance was introduced, though there has been a gradual rise since the beginning of the present year and a more spectacular one in the last three months. This is shown in the following figures, which should not be taken as indicating the actual receipts for Kenya butter, but only as illustrating the general movement of prices over the period shown :—

NEW ZEALAND FINEST (MID-MONTH QUOTATIONS)

	SHILLINGS PER CWT.				
	1931	1932	1933	1934	1935
March	—	110	70	71	74
June	110	95	80	78	80
September	111	111	98	73	112
December	105	80	68	68	—

FARM VALUES.

18. When transport and manufacturing costs are deducted from sale values, a comparison of the return to the farmer from milk sold in different ways appears as follows :—

	RETURN TO FARMER
	Cents per gallon of milk
MILK—	
In Kenya 100 cents per gallon	72
" 85 cents per gallon	57
" 70 cents per gallon	42
BUTTER—	
In Kenya, wholesale, Sh. 1/25 per lb.	46
" " Sh. 1 per lb.	34
To nearby territories	39
To United Kingdom, Sh. 70 per cwt.	9
" " Sh. 80 per cwt.	13
" " Sh. 100 per cwt.	22
" " Sh. 110 per cwt.	26
CHEESE—	
In Kenya, wholesale, 80 cents per lb.	43
To United Kingdom, Sh. 43 per cwt.	(Loss —15)
GHEE—	
In Kenya, 50 cents per lb.	13

(See Appendix III, Table X)

During the last two years the return from export butter has been down as low as 9 cents per gallon of milk (neglecting butter levy payments), and even the recent spectacular increase has only brought it slightly above 26 cents. On the other hand, that for milk, butter and cheese sold locally has varied between 43 cents and 57 cents. The actual differences have been even greater in that the returns for milk have been worked out for distant suppliers, and those near the market may receive almost the full wholesale price. These differences are at the root of the problem with which the present inquiry is concerned. The disparity between prices for the different classes of dairy produce is having repercussions on the local market. The price of milk, for instance, has fallen from Sh. 1 per gallon two years ago to 70 cents and even lower at the present time. The process has been one of levelling down, whereas equilibrium would be more appropriately reached by a process of levelling up.

19. In actual fact the returns from butter exported to the United Kingdom have been augmented from the levy fund. The additions have been as follows :—

1932	...	...	17.0	cents per lb.
1933	...	...	20.6	,, ,,,
1934	...	...	15.3	,, ,,,

These payments, of course, are derived in part from the cess paid by the creameries on their local sales, which has reduced the net benefit to the creameries by about half the above. The returns from local sales of butter have been reduced by 25 cents per lb. of butter. As the proportion of butter for export increases the help afforded by the levy fund payments naturally diminishes. Whereas with half the total production exported, which was approximately the case in 1932, the effect of the cess would be to add 25 cents per lb. of butter exported, with three-quarters exported the corresponding amount would be only 8.3 cents.

COSTS OF PRODUCTION.

20. The answer to the question whether increased quantities of butterfat can be produced at probable export values is fundamental to our inquiry. Without some prospect that the industry will become self-supporting on the basis of export values there seems no justification for legislative interference with the operation of the laws of supply and demand.

21. Although it is difficult to make an unequivocal computation of the production costs in Kenya, we believe that with the increasing skill that is being acquired by the dairy farmer,

coupled with the steady improvement of the class of stock in the Colony, the cost of butterfat production will compare more than favourably with that of other butter-exporting countries. In New Zealand, one of the most efficient butter-exporting countries of importance, a recent Commission states : "The collective evidence of farmers' returns of income and expenditure submitted to the Commission indicates that the minimum cost for maintenance, working cost and labour on highly productive farms, managed with at least average efficiency, is 8d. per lb. of butterfat." Actual figures cited by the Commission range closely around 11d. per lb. These figures should be interpreted in the light of an export price for butterfat of 9.25d. per lb., which could only have been possible as a result of currency inflation against sterling.

22. The Agricultural Economist produced figures for forty-eight dairy farms in Kenya for the year 1932-33, showing that the average cost per lb. of butterfat (excluding management and interest and making no allowance for sales of subsidiary products) was 87 cents, that on the twelve most profitable farms being 68 cents. We believe that the costs have been brought down to a considerable extent since that time. The fact that the average production of butterfat per cow and per acre in 1932 was 32 lb. and 1 lb. respectively in Kenya, as compared with about 200 lb. and 80 lb. in New Zealand, shows what enormous strides are possible in the dairy industry in Kenya. Exporters in most other dairy exporting countries are assisted at the present time by measures of various kinds, such as currency inflation, subsidies etc., and we believe that, given equal terms, Kenya can more than hold its own in the world market.

23. Some reduction in costs of manufacture should follow an increase in total supplies of butterfat and greater seasonal regularity. Supplementary feeding of dairy cows is only just coming into general use, and it is believed that total yields should increase and creamery supplies become more regular with an extension of this practice. The Kenya Co-operative Creamery Ltd. in their evidence before the Economic Development Committee stated that "the cost of manufacture depends mainly on the volume of supplies. As an illustration, in July, 1932, with the production of 112,896 lb. of butterfat, the cost of manufacture was 28.85 cents per lb. of butterfat, whereas in May, 1933, with the production of 40,922 lb. of butterfat, in spite of salary cuts, reduction in interest charges and other economies, it rose to 46.16 cents per lb. of butter-

fat." They stated that if all the factories were working at full capacity, the cost might fall to about 18 cents per lb. (of butterfat), but is unlikely to fall below that figure.

24. The cost of ocean freight at 1d. per lb. is somewhat high. A reduction to the New Zealand rate of $\frac{1}{2}$ d., which applies to complete ship loads, represents a reduction of 3.7 cents per lb. of butterfat, and such a saving would be of material assistance.

25. We do not wish to fall into the common error of speaking of the cost of production as a uniform figure. Actual costs must vary widely not only from district to district and from farm to farm, but also for different quantities on the same farm. It is quite possible that additional quantities might be produced on existing dairy farms at a cost per lb. which is much less than the average cost of production of the total output on the same farms. It is quite possible for export to be profitable at a net realization below average cost of production. This is the basis of the principle of marginal cost. It is a principle which is well known and widely adopted in manufacturing industries, as for example the motor industry, but it depends for success upon freedom from reaction upon local prices. For instance, it is found profitable to sell American motor cars on a f.o.b. basis for export for less than the price in the United States, though it would not be so if there were any possibility of internal prices becoming regulated by the export parity thus created.

26. There is the position of the native producer to take into account. It cannot be doubted that the potential output of dairy produce from Native Reserves is large, though experience to date indicates that the advance will not be rapid. Out-of-pocket costs are not incurred in Native Reserves in the same way as on European holdings, and the price received by the native is almost all clear profit. The Kenya Co-operative Creamery Ltd. have approached Government on several occasions, offering to put native producers on the same basis as European suppliers.

27. A return of 25 cents per lb. of butterfat corresponds to only 10 cents per gallon of milk and we are informed that in Native Reserves 2 cents per pint or 16 cents per gallon is being received for milk used for ghee making. We doubt whether it would be possible to stimulate much interest in sale of cream to creameries at or near the values of butterfat for export which have ruled during the last two years, at all events without some such means of equalizing internal and export returns as is afforded by the cess in the case of butter.

28. There can be no question of a loss of wealth to the community as a whole arising from the export of butter. The value even at Sh. 70 per cwt. in London is still Sh. 53 f.o.b. Mombasa, and this amount is distributed between the farmer, the railway and port authorities and various other interests in the Colony. Elimination of export would deprive the Colony of this return.

29. The future of export cannot be clearly foreseen until the conclusion of the Ottawa Agreements in 1936. It is generally understood that the United Kingdom Government intends to take measures to support the home industry, as competition of imported butter and cheese is causing the Milk Board considerable difficulty in the disposal of surplus milk. We cannot believe that Kenya, as a Crown Colony, will be placed in a disadvantageous position on the British market, and any measures enacted in support of prices on that market should react favourably on the value of Kenya butter. We strongly urge that adequate steps be taken to ensure that Kenya is allotted an adequate share in any preferences which may be accorded to British possessions.

30. The capitalization of the Kenya Co-operative Creamery Ltd. has recently been increased by the erection of two additional creameries. Importations of pedigree stock have continued and technical advances are being made in other directions. The industry cannot stand still. It must either increase production and swell the export surplus, or a part of the capital which has been built up must be destroyed.

31. There are, therefore, in our opinion, sufficient grounds for regarding increase of exports as desirable. In the words of the Economic Development Committee (para. 282) :—

“The only possible course seems to be to take due advantage of the economies which greater volume of production brings in its train. It has been pointed out that the costs of manufacture of butter at present are somewhat swollen by the shortage in relation to the capacity of the factories of supplies of butterfat during the dry seasons. In volume and regularity of export lies also the most likely means of securing reductions in ocean freight rates and marketing costs. The chief part of the cost of production on farms consists of items which may be expected to fall as the output increases. In the meantime the process of adjustment can be facilitated by measures such as the butter levy, or other means to the same end.”

THE OBJECTS OF REORGANIZATION.

32. The demand for reorganization of the dairy industry has generally originated with the members of the Kenya Co-operative Creamery Ltd. and has generally taken the form of a request for equalization of their position *vis-à-vis* that of the farm buttermaker. It has been held that since export values are lower than those on the local market, it is inequitable that the Kenya Co-operative Creamery Ltd., which is the sole organization in a position to carry on an export trade, should be required to bear the whole burden of the "loss on export". Considerable capital expenditure has been incurred in providing the necessary equipment for export, and non-members, who reap the benefit of export, should bear an equitable part of the burden. If no export trade had been built up, local prices would have been driven down by internal competition to a level at which few dairy farmers could have survived. It is unfair that non-co-operators should be able to secure a disproportionate amount of the local market, leaving the relatively unremunerative export markets for creameries.

PRICE CONTROL.

33. It is obvious that the creameries could secure a larger proportion of the local market by entering into open competition with other suppliers, which would cause prices to gravitate to export parity. Reduction of prices would be detrimental to all producers, whether members of the creameries or not, and whether producers of butterfat, butter or any other form of dairy produce.

CO-OPERATION.

34. An undercurrent of antagonism between creamery members and non-co-operators is present and proposals for reorganization of the industry are regarded by some as an attempt to force non-co-operators into the creameries. Creamery members look upon the attitude of the non-co-operators as one of short-sighted self-interest, or willingness to take advantage of the improvement in market conditions brought about by the creameries without making an adequate contribution to the cost. The position is in their view all the more exasperating when reduction of creamery costs could plainly be effected if the membership and output were increased. It is, in fact, the old story of the co-operative society and recalcitrant producers.

35. The non-co-operator, on his side, fails to make due allowance for the firmer market created by the creameries. His professional pride is aroused by the suggestion that the creameries could oust him from his market if they cared to enter into a price-cutting campaign. He may assert that he has created a special demand for his own make and could retain his connection in the face of any action by the creameries. He generally looks upon good farm butter as a superior article to the mass-produced creamery article. An impression that the Kenya Co-operative Creamery Ltd. is over-capitalized and extravagantly operated is widely current, and it is sometimes looked upon as existing chiefly for the benefit of the big man at a remote distance from the consuming centres.

36. We are aware of the practical difficulties in reconciling these conflicting points of view. The question of abstract justice is one which does not concern us so much as the economic effects to be anticipated. We are of opinion that the allegations made against the creameries are unfounded. We feel bound to say that it is in the economic interest of the Colony as a whole, no less than of producers as a whole, that the dairy industry should expand on co-operative lines. The advantages of co-operation have been insisted on so often as to need no further advocacy in this report, but there is a special need for the system where, as in the case under consideration, the exportation of a dead-weight surplus can be carried on through no other means.

37. Co-operative marketing is seldom in the interest of all producers alike. Those in the most favourable position are generally required to make some apparent sacrifice as compared with others. Producers remaining outside the co-operative organization are in a position to share in the benefits secured, but their uncontrolled existence often ties the hands of the co-operative and may imperil the industry. It is now a commonly accepted principle that where the interests of a majority of producers within a co-operative organization are being prejudiced by a minority of non-co-operators, the latter should be compelled to join in a general marketing scheme.

MEASURES OF ASSISTANCE POSSIBLE.

38. The following measures have been suggested as offering amelioration of the present position :—

- (a) An increase in the rate of the butter cess.
- (b) Extension of the cess to all dairy produce.
- (c) Fixation of minimum prices for dairy produce.
- (d) Compulsory pooling of all sales of dairy produce.

INCREASE IN THE RATE OF THE BUTTER CESS.

39. An increase in the rate of the butter cess need not be accompanied by any rise in the price of butter. In fact, since the cess was introduced in Kenya prices have declined some 16 per cent. In other words the demand for butter has proved so elastic that with falling consumers' incomes, it has been necessary for producers to bear the whole burden of the cess in order to maintain sales. The only effect has been a redistribution of returns as between creamery suppliers and farm butter makers.

40. Nevertheless we do not consider that an increase in the rate of the butter cess offers the best solution of the problem. Among other objections which we refer to in a later paragraph, there is the question of evasion. It is commonly stated by persons who are in a position to know, that even now there is widespread evasion of the butter cess. We are informed that no powers exist to inspect butter on arrival at the railway station. There must be avenues of evasion which are extremely difficult to trace. An increase in the rate of the cess would naturally increase the temptation to evade the law. In country districts evasion would be particularly easy. We accordingly conclude that it is necessary to broaden the basis upon which any scheme should rest.

EXTENSION OF THE CESS TO ALL DAIRY PRODUCE.

41. From the figures given in paragraph 16, it will be seen that the butter cess is applied to only about one-quarter of the total dairy produce expressed in terms of milk. Its extension to all forms of dairy produce would make a material difference in the position. With a view to estimating the possibility of such extension we have inquired into the circumstances of the production and distribution of dairy products other than butter.

MILK PRODUCTON AND MARKETING.

40. The consumption of liquid milk in municipalities in Kenya is in the region of 1,650,000 gallons per annum, the supply to Nairobi accounting for slightly under 1,000,000 gallons. Of the Nairobi supply, aggregating 2,590 gallons per day, some 250 gallons are supplied by natives, the quantity varying from less than 200 gallons in the dry season to over 600 gallons in the rainy seasons. The milk from European farms is supplied by producer-retailers and by farmers at various distances. Details are set out in Appendix II.

43. Milk is distributed in Nairobi by milk shops and dairies, both European and Indian, and by native hawkers. The two medical officers who gave evidence before us expressed

the opinion that the distribution of native milk under the present system constitutes a menace from a health point of view. One officer qualified his statement with the remark that bad milk was better than no milk, but as there is an ample supply of good milk the reservation is not material.

44. We have had samples taken representative of all milk sold in Nairobi and details of the results are given in Appendix II. Fifty per cent of the samples gave bacterial counts within the standard laid down for Grade A milk in England (200,000 bacteria per c.c.), while 14 per cent gave counts of over 1,000,000 per c.c. A large proportion of those within the standard for bacterial count would be ruled out, however, on account of the presence of *bacillus coli*, indicating contamination with material of faecal (probably bovine) origin. The presence of *bacillus coli*, in fact, indicates a much more serious state of affairs than the bacterial counts alone would suggest and in some samples this species comprised the greater part of the bacteria present. Streptococci were also of frequent occurrence, denoting the inclusion of milk from cows suffering from udder infections, etc.

45. Examination of the content of fat and "solids not fat" was also made and a calculation of the probable percentage of added water made. Thirty-six per cent of samples showed added water in proportion varying from less than 10 per cent to over 30 per cent. In some cases the result may have been due to removal of cream, but having regard to the high percentage of fat generally in milk produced in Kenya, the figures indicate a considerable degree of adulteration, against which the consumer should receive protection.

46. In a large number of cases the milk was stated to have been purchased from European farms. Comparison as between milk from native-owned cattle and that from European farms could be made only with reserve, as the samples were taken from unsealed receptacles and there was nothing to show what treatment the milk had received since despatch from the farm.

THE LAW.

47. Under the Public Health (Milk and Dairies) Rules, 1925, power is taken to apply to any local district Rules governing the production and sale of milk within the district. The Rules provide for registration of dairies, both within and without the local district, and for the restriction of the business of "purveyor of milk" to persons in possession of a licence. The Rules cover in a comprehensive manner the whole process

of production and handling, and provide for inspection at any time by medical and veterinary officers and for revocation of licences in cases of non-compliance.

48. Under the Food and Drugs Adulteration Ordinance, 1930, the Milk Butter and Cream Regulations, 1931, lay down minimum standards for milk, these being 3.2 per cent of milk fat and 8.5 per cent of solids not fat. Milk containing preservative is to be presumed to be not genuine and to be injurious to health. No dirt must be visible to the normal eye or detected by straining through a cotton filter pad. Cream containing preservative or any thickening substance is to be presumed to be not genuine. Butter must contain no preservative other than common salt and must contain not more than 16 per cent of water.

49. The Public Health (Milk and Dairies) Rules, 1925, have been applied to certain municipalities. In Nairobi the Rules were gazetted in October, 1929 (Government Notice No. 637 of 2nd October, 1929), but have not been strictly enforced. Two dairies outside the township have so far been registered, but we are informed that control cannot be effectively exercised owing to lack of staff.

50. In the Nairobi municipal area convictions have been obtained against vendors for selling milk not having the necessary butterfat content, but it has hitherto been considered inadvisable to apply strict control in respect of native vendors. The dirt test is difficult to apply in the absence of an official standard. Analyses are expensive; the fee for analysis of fat and solids not fat laid down in Government Notice No. 388 of 1922 is Sh. 10. We consider that such analysis could and should be carried out at a much reduced figure. Only one inspector is employed by the Municipality and his duties cover inspection of meat and other foods. Most of the work of inspection must be carried out before 8 a.m., and the view of the Medical Officer of Health, Nairobi, is that without at least one full time milk inspector it is impossible to ensure that the regulations are carried out in a satisfactory manner.

51. A number of witnesses urged the stricter application of the regulations governing the sale of milk for liquid consumption, and this is doubtless important from the point of view of public health. The question of adulteration is of more direct economic import, and the consumer and the reputable producer are entitled to protection against fraudulent practices.

52. The estimated consumption of milk in Nairobi, namely 2,590 gallons per day, corresponds to a daily *per capita* consumption of 0.44 pint per day. The corresponding figure for England is in the region of one-third of a pint.

CHEESE PRODUCTION.

53. The trade in cheese is somewhat more complicated than that in butter, by reason of the variety of types produced. Local manufacture ranges from the common cheddar produced and marketed in bulk, to small fancy cheeses, gorgonzola, etc. The commercial value and the cost of manufacture and marketing differ greatly between the different types. Some producers have built up a specialized trade and clientele.

54. Small quantities of cheese are exported, mainly to Tanganyika Territory and India. Cheese does not appear to offer any immediate prospects for export in considerable quantity however. The cost and difficulty of transporting whole milk to a creamery precludes the practice except in the case of favourably situated farms. Farm cheese is too variable in type and quality to form the basis of an export trade. No successful outlet has yet been found for pig products on a large scale and the whey as a by-product is thus without the value it bears in countries such as New Zealand.

55. The following figures show the relation between creamery and farm cheese and exports :—

	Creamery Cheese	Farm Cheese	Total
	lb.	lb.	lb.
1932-3 ..	92,938	155,525	248,463
1933-4 ..	124,922	140,633	265,555

These figures relate to the Agricultural Census for the year ended 28th February. Owing to the fact that no Agricultural Census was taken for the year 1934-35, they cannot be brought down to the present year. They may be compared with trade returns for the calendar year first mentioned in each case :—

	Exports	Transfers to Uganda	Imports (Kenya and Uganda)
	lb.	lb.	lb.
1932.. ..	57,344	9,520	5,600
1933.. ..	52,976	12,208	6,720
1934.. ..	67,424	(Not given)	9,296

Consumption in Kenya for the year 1933-34 would thus appear to be in the region of 205,000 lb.

GHEE.

56. The production of ghee on European farms in 1933-34 was 35,708 lb. In addition 55,822 lb. were manufactured by creameries. The manufacture on farms showed a steady decrease from 116,117 lb. in 1929-30, this no doubt reflecting the steady penetration of the creameries into the remoter areas with the improvement in transport facilities.

57. Ghee is to be regarded as in the nature of a waste product on European farms and in creameries. It is of greater importance in native areas, where, before the commencement of purchase of cream by the creameries it was the only feasible outlet for dairy produce. Its production in Native Reserves has been steadily fostered by the Animal Industry Division of the Department of Agriculture.

58. The Deputy Director (Animal Industry) gives the output of ghee in 1934 in certain native areas as follows :—

South Kavirondo	784,000 lb.
Central Kavirondo	257,000 "
North Kavirondo	62,000 "
Northern Frontier District and Tana River	46,697 "
TOTAL ..	1,149,697 "

In addition appreciable quantities are produced in Machakos and other districts.

59. A certain quantity of ghee is exported, chiefly to Tanganyika Territory and Zanzibar, and some Tanganyika ghee is imported. The Tanganyika trade may be regarded in part as in the nature of in-transit trade. The statistics for the last three years are as follows :—

YEAR	Exports lb.	Transfers to Uganda lb.	Imports lb.
1932 ..	189,168	112,224	552,496
1933 ..	258,608	10,080	850,192
1934 ..	327,824	232,400	971,936

60. Efforts are being made to develop an export trade to India, the United Kingdom, and other areas. Up to the present time little result has been achieved because the export surplus has been small and erratic. The local market has been able to absorb the bulk of the output at prices higher than are obtainable on the export market. The level of local prices is in fact the greatest bar to an increase in exports and it

accounts for the fact that increasing quantities of ghee are imported from a neighbouring territory into the Lake area, the most important producing area in Kenya. Admittedly this imported ghee is of low quality, but it evidently meets the needs of a definite section of the Kenya market.

61. For the development of a stable export trade, it would be necessary to establish a central refinery through which the very variable article as produced could be treated so as to leave a product of uniform quality. Such a refinery is not likely to be established by private enterprise until the local price of ghee falls appreciably below export parity and Government action would probably be necessary for early development. It is considered that the time is not yet ripe for action.

62. Customs duties on ghee are generally heavy. That into India amounts to 25 per cent *ad valorem*, the value being assessed by the customs authorities. It is stated that the corresponding absolute rate of recent months has been in the neighbourhood of Sh. 15/50 per cwt. This is a heavy imposition and we are of the opinion that the possibility of securing a British preferential rate should be explored.

EXTENSION OF THE CESS.

63. We now revert to the proposal to extend the operation of the cess on local sales to all kinds of dairy produce.

The practical difficulties of operating such a measure without a Control Board and an adequate executive organization are obvious. There would be every possibility of evasion on a large scale. Loose milk, cream and cheese in lots of varying weight do not lend themselves to the stamp method of checking. Differences in sale values would result in corresponding variations in the incidence of the cess. This is so in the case of the butter cess, but in this case the imposition bears more heavily on the poorer qualities, and there is some advantage in eliminating these from the market. As between loose milk, semi-wholesale milk, bottled milk, cheese, butter, common cheese, fancy and cream cheese, etc., the position is different, as all these varieties fill a recognized place on the market. In strict equity it would be necessary to base the rate of the cess not only on sale values, but also on comparative production and marketing costs. Legislation on equitable lines would involve unworkable complications in practice.

FIXATION OF MINIMUM PRICES.

64. An attempt to fix minimum prices by legislation alone would meet with similar difficulties. The prices actually paid by consumers are partly for the packing and services which go with the article. It would be impossible to prevent a real

reduction in the price of the article by more frequent delivery, more attractive packing, long credit, over-measure, free samples, refunds, discounts, and all the incidental means, which are commonly employed in commercial competition. Some such methods might be employed even if the price fixation were confined to wholesale prices. In this case there would be additional complications due to the intermediate position of semi-wholesale sales and the existence of numbers of producer-retailers. In producer-retail trade the wholesale price, as distinct from the retail price, can exist only on paper, and it must not be forgotten that every producer within reach of rail or postal facilities is a potential producer-retailer. An attempt to control wholesale prices without regulation of retail prices would certainly prove unworkable in practice.

COMPULSORY POOLING.

65. We now come to the proposal to bring all sales of dairy produce within the operation of a common pool. This would enable the drawbacks incidental to the foregoing methods to be avoided in large measure and the immediate object to be achieved.

66. A pooling arrangement could be effected by setting up an organization to deal either with the physical produce itself (produce pool) or with the book entries alone (receipts pool).

67. We think that the method of handling the whole of the physical produce through a pool would prove to be impracticable. It would involve the provision of a large amount of capital, it would raise difficult questions of compensation for goodwill values, and would involve wasteful transport in bringing produce into one or more depots and redistributing it to the centres of consumption. There would be grave difficulties in making provision for the smaller centres of consumption.

RECOMMENDATION.

68. We recommend, therefore, that there should be established a receipts pool, i.e. a pool based on book-entries alone. The practical operation of the scheme we have in mind may be sketched out as follows :—

Appointment of Dairy Produce Control Board.

A Dairy Produce Control Board would be set up to operate the scheme. The Board would have power to delegate part of its powers and duties to an agent or agents appointed on its recommendation. We recommend that the Board should consist of four members, viz. :—

(a) An independent Chairman, representing Government.

(b) One member representing consumers and distributors of dairy produce.

(c) Two members representing producers of dairy produce.

Producers of dairy produce would make arrangements for the disposal of their produce as at present. That is to say they would either—

(a) arrange with distributors to handle their produce;

(b) sell by retail direct to consumers; or

(c) send their milk in the form of cream to the creamery, with the proviso, however, that all arrangements between producers and distributors or manufacturers must be subject to approval by the Board.

Instead of producers selling independently to distributors, the Board would be an intermediate party to every contract. Producers would merely despatch the physical produce, sending to the Board returns of the quantities despatched. The financial aspect of the transactions would then become the responsibility of the Board. The Board would send invoices to the distributors receiving the produce, collect moneys due and, after covering its operating expenses, place the receipts in a pool from which payment would be made to producers.

The Board would be concerned with wholesale transactions only. It would fix minimum (and in certain cases maximum) prices to be paid by distributors. The proposed pool would be based on sales at the minimum prices declared by the Board. We recommend that at the inception of the scheme the minimum prices should be, for liquid milk for consumption as such Sh. 1 per gallon, for cheese 90 cts. per lb., for butter Sh. 1/25 per lb., and for other dairy products in an equitable ratio.

Where a producer, by reason of producing a superior article or by reason of an established reputation, was able to command a price higher than the official minimum, the excess would be credited to him individually, and not brought into the pool.

Not all producers would be able to make arrangements with distributors or manufacturers to handle the whole of their produce. The Board would arrange for the acceptance of the remainder in the form of cream which, on delivery to a creamery, would be graded and paid for by the Board on a butterfat basis.

In the case of the producer-retailer the one party would be considered as filling the two independent roles of producer and distributor. As a distributor he would be deemed to buy his produce through the Board at the declared minimum price;

as a producer he would share in the pay-out made by the Board from the pool. In practice his transactions with the Board would be reduced to the settlement of the difference between the official minimum price and the pay-out. His retail trade would not be the concern of the Board.

69. It will be seen that the proposed scheme offers the following advantages :—

- (a) Stability of prices on the local market.
- (b) Assistance to exports.
- (c) Protection of vendors from bad debts.
- (d) All producers of dairy produce would be provided with a market for their surplus milk in the form of cream, sharing in the pay-out on a butterfat basis.

70. It is obvious that for the advantages of the scheme to be fully realized it would be necessary to appoint the Kenya Co-operative Creamery, Ltd., as agents under the Board. The Kenya Co-operative Creamery is the only organization in a position to carry out certain parts of the scheme recommended.

PAY-OUT.

71. From the pool the Board, or its agents, would pay to producers such prices for butterfat, butter, milk and other dairy produce received as would equalize on a relative basis the returns from local sale and export. Milk and cheese producers would receive due consideration for extra attention required, for loss of skim milk, and for other factors affecting the final returns. It is recommended that the Dairy Control Board should not exercise control over ghee until they consider it practicable.

72. We have gone into the matter of the cost of administration of a scheme on the lines proposed, and from evidence received estimate the annual cost as follows :—

Expenses of Board—£500.

Allowance for dealing with milk from unlicensed producers—
£2,000 (*see* paragraph 75).

Inspection—£400.

Sundries—£500.

Agents' and secretarial charges—1 per cent on pool receipts.

73. It seems clear to us that in the long run the wholesale value of all dairy produce must be governed by the ruling price for the largest single item, which is, and must to an ever-increasing extent become, export butter. The pay-out would therefore depend in the main upon the amount and value of the export surplus. Assuming the continuance of present

conditions on the local market, the financial basis of the scheme may be illustrated as follows. In this illustration cream for consumption as such, fancy cheeses, etc., are neglected for the sake of simplification; the sales of such are not sufficient to affect the figures appreciably. The figures are expressed on a uniform basis of equivalents in gallons of milk, the following conversion factors being used :—

1 lb. butterfat equals 2.50 gallons of milk.

1 lb. butter equals 2.12 gallons of milk.

1 lb. cheese equals 1 gallon of milk.

**POOL RECEIPTS AND PAY-OUT PER DAY
BASED ON PRODUCTION AND EXPORT VALUES IN 1934**

	Equivalent in Gallons of Milk	Wholesale Price per Gallon	Total Receipts
RECEIPTS—			
Local Sales—Milk	4,500	1 00	4,500
" " Cheese	800	90	720
" " Butter	4,880	59	2,879
Export (U.K.)—Butter	*4,983	23½	1,171
	—	—	9,270
DEDUCTIONS—			
Administrative Expenses, Re-serve, etc.	—	—	278
PAY-OUT	15,163	—	8,992

*Customs.

It is proposed that the pay-out should be distributed thus :—

	Sh.
Allowance for manufacture of butter at 20 cents per lb. butterfat (8 cents per gallon of milk)	789
Extra to milk producers at 37½ cents per gallon	1,687
Extra to cheese producers at 20 cents per gallon of milk	160
General pay-out for all produce—(42 cents per gallon of milk-equivalent)	6,356
	8,992

Milk-producers would thus receive a total of 79½ cents per gallon of milk, cheese-producers 62 cents per lb. of cheese, butter-producers Sh. 1/06 per lb. of butter, and butterfat-producers Sh. 1/05 per lb. of butterfat.

74. The above figures are based upon the returns actually realized for butter exported during 1934. These are the lowest on record. It will be apparent that any increase or decrease in the quantity or value of butter for export would be reflected in an increase or decrease in the returns to producers of all kinds of dairy produce. The recent increase to Sh. 112 per cwt. on the London market would give rise to a material increase in the corresponding pay-out for milk equivalent.

On the other hand an increase in the quantity exported would result in a proportional decrease. The following table has been prepared to show the approximate pay-out which would be possible in varying circumstances. In this table allowances have been made for variations in administration expenses, but for the sake of simplicity the reduction of costs of manufacture of butter which would follow increase in the quantity has not been allowed for.

PROBABLE PAY-OUT WITH DIFFERENT QUANTITIES AND VALUES OF BUTTER EXPORTED

Price of butter in London	Commodity	Quantity of butter exported in cwts. per annum		
		7,660	15,000	20,000
Sh. per cwt.	Pay-out in cents for different kinds of produce			
		Cents	Cents	Cents
78	Milk per gallon .. .	79	73	70
	Butter per lb. .. .	106	93	87
	Butterfat per lb. .. .	105	90	83
	Cheese per lb. .. .	62	56	53
100	Milk per gallon .. .	82	77	75
	Butter per lb. .. .	112	102	98
	Butterfat per lb. .. .	112	100	95
	Cheese per lb. .. .	65	60	58
110	Milk per gallon .. .	84	79	78
	Butter per lb. .. .	116	106	103
	Butterfat per lb. .. .	116	105	102
	Cheese per lb. .. .	66	62	61
120	Milk per gallon .. .	85	81	80
	Butter per lb. .. .	119	110	108
	Butterfat per lb. .. .	120	110	108
	Cheese per lb. .. .	68	64	63

It should be realized that this table is constructed on the basis of the minimum prices as suggested to be fixed by the Board. Only that portion of the receipts which was attributable to sales at these minimum prices would be brought into the pool.

UNLICENSED PRODUCERS.

75. It is probable that some native and other producers would be unable to reach a minimum standard of production which could be considered suitable for milk for consumption in liquid form. It is proposed that depots should be set up to deal with milk brought in by such producers. A depot for Nairobi and one for Mombasa would be necessary at the outset. These depots would be run by the Board through their agents,

in such a way as to ensure an adequate distribution of milk to native quarters at a reasonable price. It is proposed that this price should not exceed what we understand to be the ruling price at present. At first there might be difficulty in operating the depots on a self-supporting basis under these conditions, and we have allowed a margin of £2,000 per annum in our estimates to cover possible losses, interest on capital for erection of depots or rent of premises, provision of equipment, etc.

76. Surplus milk would be separated and the butterfat sent to a creamery. Unlicensed producers would be in a position to share on the same basis as other producers in the butterfat pay-out according to the grade of their produce. At the same time they would be provided with an assured market for the whole of their produce, part of which, in present circumstances, is often saleable only at sacrifice prices.

77. With the assistance of the Legal Department we have prepared a draft Bill (Appendix I), modelled on the lines of the previous draft Bill referred to in paragraph 5 of our report. This draft Bill has been drawn up on lines which would enable our proposals to be carried into effect. We have inserted provisions governing the constitution and procedure of the proposed Board, assigning to the Board powers to fix minimum and maximum wholesale prices, to create a special fund, to issue licences to producers and distributors, to erect and operate depots, to call for returns, and to carry out other measures which appear essential to the successful operation of the proposed scheme. We realize that it may be argued that the time will come when circumstances, such as a disproportionate increase in the ratio of export butter to dairy produce consumed locally, may necessitate drastic alterations in the scheme that we now recommend, and it is for this reason that in the draft Bill we have purposely left wide powers in the hands of the proposed Dairy Industry Control Board, so that if and when necessity arises, the Board, in the light of experience, and under the conditions prevailing at the time, may make suitable arrangements to deal with any situation that may have arisen.

H. B. WATERS,
Chairman.

H. B. HAMILTON.
E. CASWELL LONG.
F. O'B. WILSON.

V. LIVERSAGE, *Secretary.*

NOTE OF DISSENT BY MR. H. B. HAMILTON.

I sign this report with one point of dissension.

After the most careful study and consideration of all sections, individuals and memoranda submitted to the Committee, I do not think it is practicable or feasible to control, as is suggested, the whole liquid milk trade of Kenya—especially with the mixed communities that exist in the Colony.

I do feel, however, that some cess should be paid by milk-producers, as their proportion, to assist in a more intensive campaign to increase consumption and also help others in the dairy industry who stand the losses in exportation to overseas markets of other dairy products.

H. B. HAMILTON.

APPENDIX I.

**A Bill to make Provision for the Advancement
and Control of the Dairy Industry.**

BE IT ENACTED by the Governor of the Colony of Kenya, with the advice and consent of the Legislative Council thereof, as follows :—

PART I.—OPERATION AND INTERPRETATION.

**Short title and
commencement**

1. This Ordinance may be cited as the Dairy Industry Control Ordinance, 1935, and shall come into force upon such date as the Governor may by notice in the Gazette appoint.

**Operation of
Ordinances.**

2. (1) The provisions of this Ordinance shall apply to such areas in the Colony (hereinafter referred to as proclaimed areas) as the Governor from time to time may notify by Proclamation upon the advice of the Board established in accordance with Part II of this Ordinance.

(2) In any such Proclamation the Governor may apply the provisions of this Ordinance wholly or in part to any proclaimed area and in such Proclamation may exempt any person or class of persons or any specified class of trade from all or any of such provisions.

(3) The Governor may at any time by Proclamation alter, vary or revoke any Proclamation made under this section.

Interpretation.

3. In this Ordinance, unless the context otherwise requires—

“agency” means and includes any person or persons appointed in accordance with the provisions of section 18 of this Ordinance;

“approved sale” means a sale of dairy produce by a licensed producer to a distributor with the approval of the Board in accordance with the provisions of Part III of this Ordinance;

“Board” means the Dairy Industry Control Board established under Part II of this Ordinance;

“butter” means the clean, non-rancid product made by gathering the fat of fresh or ripened milk or cream into a mass, which also contains a small portion of other milk constituents, with or without salt, and a harmless colouring matter, and which contains not less than eighty per cent of milk fat and not more than sixteen per cent of moisture;

"butterfat" means the fat of milk;

"cheese" means the solid product obtained by coagulating the caseinogen of milk by means of rennets, pepsins, or acids, with or without the addition of ripening ferments or seasoning ingredients;

"consumer" means a person who buys dairy produce for his own use and not for resale to any other person;

"dairy" means and includes any land, premises or buildings used in connection with the production of milk;

"dairy produce" means and includes milk, cream, butter, ghee or cheese, and any other product of milk or cream;

"dairy produce premises" means and includes a store, dairy, depot, factory and any place where dairy produce is deposited, treated, dealt with, or sold;

"depot" means a dairy produce depot established under this Ordinance by the Board for the purchase of dairy products from unlicensed producers;

"distributor" means a person or body of persons who buy dairy produce from a producer for the purposes of re-sale to other persons;

"export" means export from the Colony to a place outside the limits of the Uganda Protectorate or of the Tanganyika Territory, or of the Colony;

"factory" means any building, premises or place where dairy produce is processed, manufactured, prepared or treated;

"ghee" means clarified butter fat;

"inspector" means a person appointed as such by the Board;

"licensed producer" means a producer of dairy produce in the Colony in respect of whose premises a licence has been granted by the Board under Part IV of this Ordinance;

"milk" means milk from a cow;

"owner" includes a part or co-owner and the owner's agent or representative, and in relation to any dairy produce premises includes the person having the control or management thereof;

"package" includes a cask, keg, crate, can, box, case, wrapper, tin, bottle, carton, and every other receptacle or covering used for the packing of dairy produce;

"prescribed minimum price" means the lowest price for which any class of dairy produce may be sold to a distributor, such price being declared from time to time by the Board with the approval of the Governor in Council and notified in the Gazette in accordance with the provisions of section 8 (g) of this Ordinance;

"prescribed maximum price" means the highest price for which any class of dairy produce may be sold to a distributor, such price being declared from time to time by the Board with the approval of the Governor in Council and notified in the Gazette in accordance with the provisions of section 8 (g) of this Ordinance;

"proclaimed area" means an area in the Colony to which any of the provisions of this Ordinance have been applied in accordance with section 2 of this Ordinance;

"to sell" means and includes to offer, advertise, keep, expose, transmit, convey, deliver, or prepare for sale, and includes an exchange or any disposal for any consideration whatsoever, and the words "seller", "selling", "sale" and "sold" have a corresponding meaning;

"unlicensed producer" means a producer of dairy produce in the Colony to whom a licence under Part IV of this Ordinance has not been issued.

PART II.—THE DAIRY INDUSTRY CONTROL BOARD.

**Constitution of
the Dairy
Industry Con-
trol Board.**

4. (1) There shall be constituted a Board, to be known as the Dairy Industry Control Board, which shall consist of the following members who shall be appointed by the Governor :—

- (a) One member who shall represent the Government of the Colony, and who shall be chairman of the Board;
- (b) One member who shall represent the consumers and distributors of dairy produce in the Colony; and
- (c) Two members who shall represent the producers of dairy produce in the Colony.

(2) One member of the Board shall retire annually and shall be eligible for re-election to the Board.

(3) If a vacancy occurs on the Board by reason of the death, resignation, or removal of any appointed member of the Board or by effluxion of time or from any other cause,

the vacancy shall be filled by a fit person who shall be appointed by the Governor upon the recommendation of the Board, and the person so appointed shall be a member of the Board for so long only as the member in whose place he is appointed would have been a member.

(4) The powers conferred on the Board by this Ordinance shall not be affected by any vacancy in the membership of the Board.

(5) In any case in which the Governor is satisfied that any member of the Board is incapacitated by illness, absence or other sufficient cause from performing the duties of his office, the Governor, on the recommendation of the Board, may appoint some fit person who shall be named by the Board to be a deputy to act for such member during such incapacity; and any such deputy shall, while he acts as such, have all the powers and authority of the member for whom he is so acting.

(6) The appointment of any such deputy, and the acts of any such deputy, shall not be questioned in any proceedings on the ground that the occasion for such appointment had not arisen or had ceased.

(7) Where a member of the Board, without the leave of the Board, has failed to attend three consecutive meetings of the Board, and no person has been appointed to act as his deputy as provided by sub-section (5) of this section, such member shall cease to be a member of the Board.

5. The Board shall be a body corporate with perpetual succession and a common seal, and may sue and be sued and may purchase, take, hold and dispose of lands and other property for the purposes of this Ordinance. The Board to be a body corporate.

6. (1) The first meeting of the Board shall be held on such day and at such place as may be appointed in that behalf by the chairman. Meetings of the Board.

(2) Save as is provided in the last preceding sub-section of this section, meetings of the Board shall be held at such times and places as the Board shall from time to time appoint.

(3) The chairman or any two members of the Board may at any time call a special meeting of the Board.

(4) At all meetings of the Board three members shall form a quorum.

(5) The chairman shall preside at all meetings of the Board at which he is present.

(6) In the event of the absence of the chairman from any meeting of the Board the members present at such meeting shall appoint one of their number to be chairman of the meeting.

(7) At any meeting of the Board the chairman shall have a deliberative vote, and in the case of an equality of votes shall also have a casting vote. A decision of the majority of the members present at a meeting of the Board shall be deemed to be the decision of the Board.

(8) At least seven days before any meeting of the Board the chairman shall send to every member at his address a notice of the meeting, and in such notice shall state the time and the place where such meeting will be held and the nature of the business to be transacted at the meeting.

Advisory committees.

7. The Board, with the approval of the Governor, may constitute such advisory committees as it may think proper. Every such advisory committee shall consist of a member of the Board as chairman and such other persons, not being members of the Board, as the Board from time to time, with the consent of such persons, may appoint.

Powers of the Board.

8. The Board shall have power—

- (a) to regulate its own proceedings, and to make standing orders governing the conduct of its business and the conduct of business by any committees appointed under section 7 of this Ordinance;
- (b) to appoint such persons as the Board considers necessary to enable it to exercise its functions, at such remuneration and on such conditions as it may determine;
- (c) to erect, acquire, or hire any property which the Board considers necessary for the purpose of exercising its functions;
- (d) to make from the Dairy Pool Account established under section 11 of this Ordinance any payments which the Board is authorized to make in the exercise of its functions under this Ordinance or any Rules made thereunder and to defray from the moneys in such Account any expenses properly incurred by the Board and its agents, and from time to time to establish separate funds from such moneys for purposes connected with the dairy industry;

- (e) to direct any licensed producer and any owner of a milk or cream depot, creamery, cheese factory or other dairy produce premises to keep such records and furnish such returns as the Board or its agents may from time to time require;
- (f) with the approval of the Governor in Council, to make rules governing the export of butter, cheese and ghee;
- (g) from time to time, with the approval of the Governor in Council, to declare by notice published in the Gazette the minimum and, where necessary, the maximum price for which any class of dairy produce may be sold to a distributor;
- (h) when occasion arises, with the approval of the Governor in Council, to declare by notice in the Gazette the maximum price for which any class of dairy produce may be sold to a consumer;
- (i) to pay to producers who have contracted, with the approval of the Board, for the disposal of their produce at a price above the minimum price declared by the Board, the difference between the contract price and the minimum price;
- (j) to publish, from time to time, particulars of current prices at cream or milk depots, creameries, cheese factories, ghee factories, or other dairy produce premises for butterfat and milk;
- (k) generally to disseminate such information concerning the dairy industry as, in the opinion of the Board, may be calculated to inspire confidence and to ensure stability in the industry;
- (l) to issue licences at a fee not exceeding five shillings for each licence to dairy producers;
- (m) to erect depots for the purpose of receiving and dealing with milk produced by unlicensed producers;
- (n) to conduct a pool for the equalization, on a relative basis, of the returns received from the sale of dairy produce.

9. (1) Where any maximum or minimum price under section 8 (g) or (h) of this Ordinance has been declared by the Board by notice published in the Gazette, such price shall remain in force until it is varied or altered by a further notice similarly published by the Board.

Publication of
prices in the
Gazette.

(2) Any person who, while any such notice is in force, purchases or sells any dairy produce to which such notice refers at a greater or less price, as the case may be, than the maximum or minimum price published in such notice shall be guilty of an offence against this Ordinance.

Functions of the Board.

10. In addition and without prejudice to the powers conferred by section 8 of this Ordinance, the Board shall be responsible for the exercise of the following functions in connection with the dairy industry in the Colony :—

- (a) Co-ordinating as far as possible the primary production, manufacture and marketing of dairy produce;
- (b) Taking such measures as, in the opinion of the Board, may be necessary to stabilize the prices of dairy produce in the Colony;
- (c) Advising the Governor generally on all matters relating to the development of the dairy industry and recommending any measures which, in the opinion of the Board, may be calculated to promote the general welfare of the industry.

Dairy Pool Account.

11. The Board shall establish and maintain a Dairy Pool Account into which shall be paid all revenue which the Board may derive from any source whatsoever, except as provided in section 22 of this Ordinance.

Audit and publication of accounts.

12. The accounts of the Dairy Pool Account shall be audited in such manner as the Governor may direct, and shall as soon as may be after the close of each year, and after audit as aforesaid, be published in such manner as the Governor may direct.

Annual report.

13. The Board shall prepare annually a report of its operations, and such report shall be published in such manner as the Governor may direct.

Non-liability of members of the Board.

14. No member of the Board shall be personally liable for any act or default of the Board done or omitted to be done in good faith in the course of the operations of the Board.

PART III.—SALE AND DISTRIBUTION OF DAIRY PRODUCE.

Sales to producers.

15. No person shall sell any dairy produce to any distributor in a proclaimed area unless—

- (i) such person is a producer whose premises are licensed in accordance with the provisions of Part IV of this Ordinance; and

(ii) the sale of such produce is in all respects an approved sale under this Part.

16. No person shall sell any dairy produce to any consumer in a proclaimed area unless—
Sales to consumers.

(i) such person is a distributor selling produce which has been included in an approved sale under this Part; or

(ii) such person is a producer whose premises are licensed in accordance with the provisions of Part IV of this Ordinance and who is selling to a consumer in accordance with the provisions of section 23 of this Part.

17. Save as is provided in sections 15 and 16 of this Ordinance, no person shall sell dairy produce in a proclaimed area except in accordance with the provisions of Part IV of this Ordinance and through a depot established in accordance with section 40 of this Ordinance.
Sales through depots.

18. (1) The Governor in Council, on the recommendation of the Board, may by notice in the Gazette appoint any person or persons to be an agency for the purpose of exercising on behalf of the Board all or any of the powers or functions assigned to the Board in this Part, and in such notice the Governor in Council shall specify the powers and functions which may be so exercised by the agency and the areas and districts to which the appointment relates.
Agencies.

(2) Every agency appointed under this section shall at all times be responsible to the Board for every matter or thing done by the agency by virtue of such appointment. The Board may make a report in writing to the Governor in Council in any case where it is dissatisfied by reason of anything done or proposed to be done by an agency.

(3) Any appointment made under this section may be varied or revoked at any time by the Governor in Council by notice in the Gazette.

19. (1) No producer shall enter into any contract, whether oral or in writing, for the supply of dairy produce to a distributor unless and until he has obtained the approval of the Board to such contract.
Approved sales of dairy produce.

(2) Every such application for approval shall be made by the producer to the Board in the prescribed form.

(3) After so obtaining the approval of the Board the producer may proceed to complete the contract to which such approval relates and may deliver to the distributor the dairy produce which is the subject of such contract.

(4) No distributor shall accept delivery of any dairy produce from a producer unless the Board has given its approval in accordance with this section to the contract in respect of which such delivery is made, and every distributor shall be responsible for satisfying himself that such approval has been duly given.

(5) Completed contracts under the provisions of this section shall be referred to as "approved sales".

(6) As from the date of this Ordinance all pre-existing contracts shall become null and void.

Returns.

20. (1) The Board may call upon producers and distributors to render returns to the Board in accordance with any Rules made under this Ordinance upon any matter relating to the dairy industry, and any producer or distributor who refuses or neglects to render a prescribed return or who makes or causes to be made a return which is false in any particular shall be guilty of an offence against this Ordinance.

Books and accounts.

(2) The Board shall keep such books and accounts as may be necessary and as may be prescribed by Rules made under this Ordinance.

Payments for approved sales.

21. (1) The Board shall collect monthly from the distributors concerned the amounts owed by the distributors in respect of all approved sales effected in the preceding month.

(2) The Board shall collect monthly from all exporters of dairy produce to places outside Kenya, Uganda and Tanganyika the net amount received f.o.r. station nearest the factory for all dairy produce so exported during the previous month.

(3) All amounts as in sub-sections (1) and (2) of this section shall be paid by the Board into the Dairy Pool Account established under the provisions of section 11 of this Ordinance.

Payments to producers.

22. The Board shall set aside every month from the moneys in the Dairy Pool Account such sums as may be needed to defray the expenses incurred by the Board and its agents in giving effect to the provisions of this Ordinance, together with such other sums as may be required for any purposes provided for by this Ordinance or any Rules made thereunder. From the balance remaining in the Dairy Pool Account the Board, so soon as may be, shall pay out monthly

to every producer the sums due for all dairy produce included in the producer's approved sales for the preceding month, such payment being made at the pool pay-out price as determined by the Board :

Provided that where a distributor has contracted to pay to a producer in respect of any approved sale a price in excess of the prescribed minimum price for the time being, the Board shall credit the amount of such excess to the producer concerned, and shall not pay such excess into the Dairy Pool Account.

23. (1) In any case where a producer sells dairy produce direct to a consumer, without the intervention of a distributor, such producer shall in respect of such sale be deemed for the purposes of this Ordinance to be a distributor. Sales to consumers by producers.

(2) Notice of every such transaction shall be given to the Board by the producer in the prescribed form, and any producer who fails to give such notice shall be guilty of an offence against this Ordinance.

(3) The producer shall pay to the Board in respect of the dairy produce included in any such transaction the prescribed minimum price. The sum so received shall be paid into the Dairy Pool Account by the Board, and payment shall be made to the producer in accordance with the provisions of section 22 of this Ordinance.

24. (1) The Board shall purchase daily from all producers the surplus milk of such producers. All such surplus shall be converted into cream by the producer and shall be delivered by him at such place or places as the Board may direct. Surplus produce of producers.

(2) Payment in respect of such surplus, calculated on a basis of butterfat content and grade, shall be made by the Board by including the amounts due to the producer in respect thereof in the monthly payment made to him in accordance with the provisions of section 22 of this Ordinance.

25. Every producer of dairy produce shall, if required by the Board, be responsible for the proper grading of dairy produce delivered to the Board in accordance with the classification of grades of dairy produce laid down by the Board. Grading of dairy produce

26. (1) Every producer of butter or cheese shall put up brands on packages bearing all butter or cheese manufactured by him in packages bearing a brand. Every such brand shall be registered under this Ordinance, and shall show the name of the manufacturer and the class of dairy produce contained in the packages. Brands on packages.

Net weight.

(2) The net weight of the contents of every such package containing dairy produce shall be clearly indicated upon such package as prescribed by Rules made under this Ordinance.

Power of Board to sell butter.

27. The Board may sell butter in any market, whether within or without the Colony, but it shall be the first duty of the Board to supply the demands of the Colony and of the Uganda Protectorate and of the Tanganyika Territory to the satisfaction of the Governor.

Appeal.

28. Any person aggrieved by any decision of the Board or of an agency as to the price to be paid to him for dairy produce or by the failure or refusal of the Board or agency to purchase dairy produce from or to supply the legitimate demands of such person for dairy produce may appeal in writing to the Governor within one month of the date of such decision, failure or refusal, as the case may be:

Provided that nothing in this section contained shall be deemed to deprive any person of any right of action which he may have in any competent court in the Colony.

Saving.

29. Nothing in this Ordinance contained shall be deemed to prohibit the sale or purchase of dairy produce which has been produced elsewhere than in the Colony or the Uganda Protectorate or the Tanganyika Territory.

Rules.

30. The Board may, with the approval of the Governor in Council, make rules generally relating to the sale and distribution of dairy produce under this Part, and more especially with regard to—

- (a) the forms and documents to be used;
- (b) the returns to be rendered;
- (c) the establishment of and expenditure from funds in connection with the dairy industry;
- (d) the procedure to be followed and the form to be used in giving any notice or obtaining any approval required by the provisions of this Part;
- (e) the methods whereby payment is made by distributors and by or to producers in respect of dairy produce;
- (f) the procedure relating to approved sales;
- (g) the collection of moneys due in respect of approved sales;
- (h) the keeping of books and accounts;

- (i) the grading, inspection, packing, labelling, branding and marking of dairy produce;
- (j) the purchase and sale of surplus dairy produce; and
- (k) the procedure to be followed in cases where any dispute arises in regard to the quantity or quality of dairy produce supplied or received or in regard to any other matter.

31. (1) Any person who contravenes or fails to comply with any of the provisions of this Part or of any Rules made thereunder or any of the conditions or restrictions subject to or upon which any licence, permit or approval is granted under this Part shall be deemed to have committed an offence against this Ordinance, and shall on conviction by a magistrate of the first or second class be liable for the first offence to a fine not exceeding one hundred pounds or to imprisonment for a period not exceeding six months or to both such fine and imprisonment, and for a second or subsequent offence shall be liable to a fine not exceeding five hundred pounds or to imprisonment for twelve months or to both such fine and such imprisonment.

(2) The Board, in its discretion, in the case of any person who has been convicted under this section on more than two occasions, may cancel any licence issued to such person under the provisions of Part IV of this Ordinance.

32. Wherever in this Part the expression "producer" occurs such expression shall be deemed to refer only to a licensed producer as defined in section 3 of this Ordinance.

PART IV.—REGISTRATION AND LICENCES.

33. (1) As from the date of the coming into operation of this Ordinance no premises in a proclaimed area shall be used for the production, collection, manufacture or distribution of dairy produce unless such premises are registered with the Board in the manner prescribed by Rules made under this Ordinance.

(2) Where application has been made to the Board for the registration of any premises, and the Board is satisfied that the requirements of this Ordinance in respect of such premises have been complied with, a licence shall be issued, at a fee not exceeding five shillings, to the applicant by the Board.

(3) Every licence issued under this section, together with all privileges conferred by such licence, shall expire on the thirty-first day of December next succeeding the date of issue

Registration of
cream depots,
creameries,
etc.

of the licence, but any such licence may be renewed by the Board if the Board is satisfied that the requirements of this Ordinance are being complied with in respect of such premises.

Requirements before registration is granted.

34. No premises shall be registered under this Ordinance unless and until the premises comply with such requirements as may be prescribed by rules made under this Ordinance for the class of premises for which the registration is desired.

Registration marks.

35. (1) A register of distinctive marks used by the holders of licences and by manufacturers of dairy produce shall be kept in the office of the Board in the form and manner prescribed by Rules made under this Ordinance. The register shall show the number of each such mark, and the name and address of the licensed holder thereof, and shall contain a copy or exact representation of such mark, together with an entry of the dates of the licence applied for and when the licence-holder respectively was granted the licence.

(2) The register shall be open to inspection by any person during office hours.

(3) Every manufacturer of butter and cheese shall register a mark under this Ordinance in respect of dairy produce manufactured by him.

(4) The registered holder of a distinctive mark may, with the consent of the Board, transfer the right to use such mark to any other person, or may cause another person to be joined with him as the registered holder of such mark. Every such transfer or joinder shall be registered when approved by the Board.

(5) The registration of a mark under this section may be cancelled by the Board if the Board is satisfied that the mark is no longer used by the registered holder thereof or that the registered holder has died or has permanently left the Colony and that no action has been taken or is contemplated for effecting a transfer of the registration of such mark.

Offences in respect of unregistered premises, registration numbers and registered marks.

36. (1) Any person who in contravention of this Ordinance uses any premises for the production, collection, manufacture or distribution of dairy produce, unless he holds such a licence in respect thereof as is required by this Part, shall be guilty of an offence against this Ordinance, and shall be liable on conviction to a fine not exceeding fifty pounds and to a further fine not exceeding five pounds for every day on which the offence continues.

(2) Any person who in respect of dairy produce manufactured at any premises (whether or not licensed under this Part) uses any licence number which has not been allotted to him under this Part, shall be guilty of an offence against this Ordinance and shall be liable on conviction to a fine not exceeding ten pounds and to a further fine not exceeding one pound for every day on which the offence continues.

(3) Any person who uses, for the purposes of designating dairy produce manufactured by him, any distinctive mark of which he is not the registered holder under this Ordinance shall be guilty of an offence against this Ordinance and shall be liable on conviction to the like penalties as are provided for offences under sub-section (2) of this section.

37. Notwithstanding anything contained in this Ordinance, the Board, with the consent of the Governor, may refuse to issue a licence to any applicant in respect of any premises sought to be licensed under this Ordinance where such premises are situate in any area where there are, in the opinion of the Board, sufficient other licensed premises for the manufacture of dairy produce :

Power to refuse registration.

Provided that where a licence is so refused in respect of premises already in existence at the date of the coming into force of this Ordinance, such compensation for any loss caused by such refusal shall be paid from the funds of the Board as may be agreed upon between the Board and the person in respect of whose premises a licence has been so refused, and, failing agreement as to the amount of such compensation, the sum so to be paid shall be ascertained by arbitration in accordance with the provisions of the Arbitration Ordinance.

Cap. 18.

38. (1) No unlicensed producer shall sell any dairy produce in any proclaimed area save to a depot established by the Board under the provisions of section 40 of this Ordinance.

Unlicensed producers to sell only to depots.

(2) All such sales of dairy produce by unlicensed producers shall at all times be effected in accordance with the provisions of this Ordinance and any Rules made thereunder governing such sales, and not otherwise.

39. (1) Where at any time the Board has erected or is intending to use any premises or building in a proclaimed area as a depot for the purposes of this Ordinance, the Board, by notice published in the Gazette, shall declare such premises or building to be a Dairy Produce Depot.

Establishment of depots.

(2) Any such premises or building shall cease to be a Dairy Produce Depot upon the publication by the Board at any time of a notice to that effect in the Gazette.

Rules.

40. The Board, with the approval of the Governor in Council, may make rules generally relating to depots and more especially with regard to—

- (a) the erection, establishment, and maintenance of depots;
- (b) the appointment of officers for carrying out the functions of depots, and the duties of such officers;
- (c) the financial working and management of depots;
- (d) the keeping of books and accounts by depots;
- (e) the purchase and sale of dairy produce by depots, including the regulation of the quantities of produce which a depot may purchase and the method of calculating the price to be paid and of making such payment;
- (f) the inspection and grading of produce;
- (g) the forms to be used in connection with registration and licensing under this Part and the fees to be paid in connection therewith;
- (h) the conditions required to be fulfilled in regard to premises in respect of which a licence is to be issued or renewed or in respect of which registration is to be granted or renewed;
- (i) licence numbers; and
- (j) the grant, registration, renewal, transfer and joinder of ownership of registered marks, including the fees to be paid in connection therewith.

PART V.—GENERAL.

Power of inspectors.

41. (1) An inspector, at any reasonable time, may enter any dairy or dairy produce premises, or any premises, place, vehicle or vessel where dairy produce is produced, stored or sold, and there may—

- (a) make any inspection or perform any work or do any thing which is required or authorized to be done by this Ordinance or any other law in force in the Colony relating to the dairy industry; and
- (b) examine any dairy produce found therein which he shall have reason to believe is intended to be used as human food.

(2) Where, upon any inspection or examination under this section, any dairy produce appears to an inspector to be unfit for use as human food, he may seize and detain the same, and any magistrate on the application of an inspector may order any produce so seized and detained to be destroyed or to be disposed of so as to prevent it from being used as human food : Provided that no destruction or disposal of dairy produce shall be so ordered unless and until the owner of such produce shall have been offered an opportunity of being heard upon the matter by the magistrate.

42. Where, upon any inspection made under this Ordinance or under any Rules made thereunder, an inspector is of opinion that on any premises, place, vehicle, or vessel where dairy produce is produced, stored or sold any person is suffering from any infectious or contagious disease, he shall report the fact to the medical officer of health, and if the medical officer of health certifies that such person is suffering from any infectious or contagious disease the inspector may, by written order, require the isolation or removal of such person for such time as the medical officer of health may deem necessary.

Removal or
isolation of
persons
suffering from
infectious or
contagious
diseases.

43. No member of the Board and no servant or agent of the Board shall, save where the same is necessary in connection with the administration of this Ordinance or in connection with any legal proceedings under this Ordinance, disclose any information supplied to the Board for any of the purposes of this Ordinance.

Disclosure of
information
prohibited.

44. No person shall mark upon any dairy produce, or upon any package containing dairy produce, any incorrect information as to the grade or quality of such produce or as to the place where, the time when, or the person by whom such dairy produce was made, nor shall he so mark any information or representation which is likely to be misleading in any way whatsoever.

Incorrect
statements on
dairy produce.

45. Save in so far as provision to the contrary is expressly made in this Ordinance, nothing in this Ordinance shall be deemed—

- (a) to affect any other law in force in the Colony relating to public health or to the adulteration and sale of dairy produce ;
- (b) to apply to any dairy produce intended for consumption on the premises whereon it is produced and which is not sold or offered or exposed for sale:

Saving.

Fraudulent acts.

46. Any person who, with intent to defraud—

- (a) obliterates, defaces or alters an inspector's mark or any mark registered under this Ordinance, such mark having been placed on dairy produce which has been inspected thereunder or on any package containing such produce; or
- (b) counterfeits any such mark, or places upon any dairy produce or package containing dairy produce the mark of an inspector or a mark registered under this Ordinance, or the mark of a manufacturer; or
- (c) empties or partly empties of its contents any package which has already been marked after proper inspection under this Ordinance, in order to insert in such package any dairy produce (whether or not of the same class or grade as the original contents) which was not contained therein at the time of such inspection; or
- (d) uses for the purposes of packing dairy produce any package which has been previously used for that purpose without first effacing all existing marks thereon,

shall be guilty of an offence against this Ordinance, and shall be liable on conviction to a fine not exceeding one hundred pounds or to imprisonment for a period not exceeding six months or to both such fine and imprisonment.

Penalties for obstructing or failing to carry out orders of an inspector, etc.

47. Any person who—

- (a) obstructs or hinders an inspector or any other person authorized under this Ordinance to exercise any power or perform any duty while such inspector or person is executing any such power or performing any such duty;
 - (b) when lawfully required under this Ordinance to give information to an inspector or to any other authorized person fails to give such information or gives false information knowing it to be false;
 - (c) when lawfully required to carry out any written order given by an inspector or any other authorized person under this Ordinance wilfully or negligently fails to carry out the terms of any such order within the period allowed therefor; and
 - (d) fails to give any notice or render any return which under this Ordinance it is his duty to give or which he is lawfully required to give,
- shall be guilty of an offence against this Ordinance.

48. (1) Every omission or neglect to comply with and Penalties, every act done or attempted to be done contrary to the provisions of this Ordinance or of any Rules made thereunder or in breach of the conditions or restrictions subject to or upon which any licence, permit, authorization or approval has been granted under such Ordinance or Rules shall be deemed to be an offence against this Ordinance.

(2) For every offence against this Ordinance for which no penalty is specially provided, the offender shall be liable on conviction to a fine not exceeding seventy pounds.

(3) The Board, in its discretion, in the case of any person who has been convicted on more than two occasions of an offence against this Ordinance, may cancel any licence, permit, authorization or approval which has been granted to such person under the provisions of this Ordinance or of any Rules made thereunder.

(4) If any offence against this Ordinance shall be committed by a company, the secretary and the person or persons who shall be in control of the business thereof in the Colony shall each be liable to the penalties for such offence; and if any such offence shall be committed by a firm or partnership every member thereof and the person in control of the business thereof in the Colony shall be liable to such penalties: Provided that nothing in this section contained shall exempt any other person from liability in respect of such offence.

49. The Board, with the consent of the Governor in Council, may make rules for all or any of the following purposes :—

- (a) The examination, inspection, grading, analysing and testing of dairy produce and for prescribing the conditions upon and the manner in which samples of such produce may be taken, whether compulsorily or otherwise, for all or any of such purposes;
- (b) The examination and inspection of all books and documents relating to any dairy produce premises;
- (c) The inspection of any premises, place, cooling chamber, vehicle or vessel where dairy produce intended for sale is produced or stored, and of all dairy produce found therein or thereon and of all utensils, machinery, chemicals, apparatus or appliances used in connection with such dairy produce and of all vehicles or vessels used for the carriage of such produce;

- (d) The taking of samples, whether compulsory or otherwise, of dairy produce or of any water or of any food supplied to live stock, or of any article used in connection with dairy produce;
- (e) The opening, for the purpose of inspection, of any package which contains or is suspected of containing dairy produce;
- (f) The inspection, examination, supervision and control of the manufacture, preparation, storage, keeping or transmission of dairy produce;
- (g) The inspection, examination, supervision and control of any live stock on or at any dairy, dairy produce premises or premises where milk is produced or cooled or cream separated, and for the prohibition of the sale or use of milk from any diseased animal, and the detention or removal, pending examination or inquiry, of animals suspected of being diseased;
- (h) Prescribing the conditions upon which an agency may be appointed;
- (i) Prescribing the duties and functions of an agency;
- (j) Prescribing the qualifications, powers and duties of inspectors and other persons appointed to exercise powers and perform duties under this Ordinance;
- (k) Prescribing the manner of handling, transporting and storing any dairy produce intended for the use of or for consumption by any person other than the producer thereof;
- (l) Prescribing the manner in which premises, numbers and marks shall be registered under this Ordinance and the requirements to be fulfilled prior to such registration or to a renewal of registration;
- (m) Prescribing the manner of branding or marking articles intended for use in connection with dairy produce, including wrappers or packages containing dairy produce;
- (n) Prescribing the forms of application, and the forms of licences, marks, brands, registers and of all other documents to be used for the purposes of this Ordinance;
- (o) Prescribing the grade of cream to be used for making butter and the grades of cream to be used for purposes other than making butter;

- (p) The disposal of condemned dairy produce;
- (q) The grading and testing of dairy produce;
- (r) Prescribing the charges which may be made for any grading, testing or examining dairy produce under this Ordinance;
- (s) Any other purpose or object for which rules may be made in accordance with the provisions of this Ordinance;
- (t) Prescribing the procedure for the nomination of proposed members of the Board for appointment by the Governor as representatives of the respective interests referred to in section 4 of this Ordinance; and
- (u) Generally for the better carrying out of the purposes and provisions of this Ordinance.

50. The Butter Levy Ordinance, 1931, together with all Repeal Ordinances amending or replacing the same is hereby repealed.

OBJECTS AND REASONS.

1. This Bill is designed to assist the economic production and marketing of dairy produce in the Colony and to assure by improved marketing methods a more equitable distribution of returns to all producers in supplying both local and overseas markets.
2. Provision is made in the Bill for the establishment of a Dairy Control Board and a system of pool marketing, and for the regulation and control of the sales and distribution of dairy produce.
3. The details of the proposed organization include the registration of dairy premises, the licensing of approved producers and the introduction of registered dairy produce marks for the protection of manufacturers. Sales by unlicensed producers are to be strictly controlled under arrangements to be made by the Dairy Control Board.
4. The Bill repeals the Butter Levy Ordinance, 1931, together with its amending Ordinances.
5. No expenditure of public moneys will be involved if the provisions of this Bill become law.

APPENDIX II.

THE NAIROBI MILK MARKET.

1. From a survey made in April, 1935, the supply of milk to Nairobi was estimated at 2,790 gallons per day, of which 2,190 gallons were supplied from European farms and 600 gallons brought in by natives. The origin of supplies from European farms is shown briefly in the following table :—

		No. of Suppliers	Gallons of Milk
Producer-retailers	.. .. ..	12	479
Suppliers to milk shops—			
Within 25 miles	.. .. ..	20	594
Within 26–55 miles	.. .. ..	5	775
Over 55 miles	.. .. ..	6	342
TOTAL	..		2,190

The 25-mile radius is taken to include Nairobi, Athi, Ngong, Kikuyu, Limuru, Kiambu; the 55-mile radius includes Machakos, Konza, Ulu, Uplands, and Longonot. Supplies from further distances come from Naivasha and Kinangop.

2. The quantities supplied daily were as follows :—

		Gallons
20 suppliers of 5–20 gallons each supplied..	..	250
11 suppliers of 30–60 gallons each supplied	..	400
4 suppliers of 60–100 gallons each supplied	..	340
8 suppliers of 100–350 gallons each supplied	..	1,200
		2,190

3. A check was made on various roads entering the municipal area of Nairobi in the period referred to. In all, 401½ gallons of milk were brought in by 115 natives. The check was under the supervision of the Stock Inspector, Nairobi, who is of the opinion that these figures did not represent the total amount of native milk brought in to the municipal area of Nairobi, owing to the many footpaths which natives traverse, and estimates that the total amount brought in was about

600 gallons. These supplies come from all directions : from Mbagathi, Masai, Dagoretti, Dondora, and so on. The quantities brought in by each individual, according to the enumeration by the Stock Inspector, were as follows :—

	Gallons
65 natives with $\frac{1}{2}$ -3 gallons each brought in	89
29 natives with $3\frac{1}{2}$ -6 gallons each brought in	138
16 natives with $6\frac{1}{2}$ -9 gallons each brought in	117
5 natives with $9\frac{1}{2}$ -12 gallons each brought in	56
	400

On account of favourable grazing conditions, the supply at that time was probably at its maximum.

4. An independent examination made at the instance of Dr. Tilling, Medical Officer of Health for Nairobi, in October, resulted in a count of 111 natives supplying milk to Nairobi from a total of 1,250 cows in milk. Dr. Tilling estimates that the average daily supply throughout the year from native sources is in the region of 250 gallons.

5. The Nairobi milk supply is transported to Nairobi by train, lorry, bicycle and head portage. The railway milk trains convey slightly more than 1,000 gallons a day; the special freight rate for milk in cans ranges from 8 cents per gallon for 25 miles to 14 cents per gallon for 50 miles and to 20 cents per gallon for 100 miles.

6. Milk is retailed in Nairobi by milk shops and dairies, both European and Indian, and by native hawkers. In April, 1935, 14 European producer-retailers and milk-shop owners distributed 820 gallons, and 9 Indian owners of milk shops or dairies distributed 1,370 gallons per day. A noticeable feature is the erratic supply from certain producers. This is particularly evident in the case of native milk supplies, which are estimated to range from less than 200 gallons per day in the dry season to over 600 gallons a day in the wet season.

7. In order to test the quality and condition of the Nairobi milk supply we have caused a number of samples to be taken and submitted to examination at the Veterinary Research Laboratory. In the collection of the samples we have received valuable assistance from Dr. Tilling, Medical Officer of Health,

Nairobi. In all, 68 samples were taken, almost all being secured in Indian and native quarters of Nairobi. In a large number of cases the milk was stated to have been purchased from European farms. As most of the samples were taken from unsealed receptacles, and there was nothing to show what treatment the milk had received since despatch from the farm, comparison with supplies of native origin could be made only with reserve.

8. Of the 68 samples taken, two contained no bacteria, and had obviously been treated in some way. The following bacterial counts relate to the remaining 66 samples:—

BACTERIAL COUNT	No. of Samples	Percentage of Total
Below 30,000 per c.c.	11	Per cent 17
30,000—200,000.	22	33
200,000—1,000,000	24	36
Over 1,000,000	9	14
	66	100

The lowest group (below 30,000) corresponds to the standard laid down for Certified Milk in England, and the next lowest to that laid down for Grade A Milk. It will be seen that on the basis of bacterial counts 17 per cent of the samples came within the Certified standard and 50 per cent within the Grade A standard. A large proportion, however, would be ruled out owing to the presence of *Bacillus Coli*, indicating contamination with material of faecal (probably bovine) origin. The prevalence of *Bacillus Coli*, in fact, indicates a much more serious state of affairs than the bacterial counts alone would suggest, and in some samples this species comprised the greater part of the total bacteria present. *Streptococci* were also of frequent occurrence, denoting the inclusion of milk from cows suffering from udder infections, etc.

9. Examination of the content of fat and "solids not fat" was also made. From the figures obtained, the content of milk of minimum quality was calculated on the basis of standards laid down under the Sale of Food and Drugs Act (England), namely, 3 per cent fat and 8.5 per cent solids not

fat. The probable percentage of water added was then estimated by subtracting the resulting figure from 100. The results are given below :—

PERCENTAGE OF ADDED WATER	No. of Cases	Percentage of Total Samples
		Per cent
Nil	44	64
1—10	12	18
10—20	2	3
20—30	4	6
Over 30	6	9
	68	100

10. The above calculation has been made by taking into account deficiencies in either fat or solids not fat, and it is possible that in some cases the quality may have been partly reduced by removal of cream. It is also possible that fat deficiency may have been due in some cases to a sample having been taken from the bottom of a receptacle after the upper portions, richer in fat, perhaps partly churned by shaking, had been removed in the course of retail distribution. On the other hand, the proportion of fat in milk in Kenya is usually high. Examination of the figures obtained for solids not fat throws further light on the matter, though even here we are informed that recent research has brought to light some cases of genuine milk containing a lower proportion than that laid down in the official standards :—

PERCENTAGE OF SOLIDS NOT FAT	No. of Cases	Percentage of Total
		Per cent
9 and over	20	29
8·5—8·99..	21	31
8—8·49	8	12
Below 8	19	28
	68	100

Forty per cent of the total number of cases gave a figure below the standard laid down in England.

APPENDIX III.**STATISTICAL.****TABLE 1**

**DOMESTIC EXPORTS OF DAIRY PRODUCTS FROM KENYA
AND UGANDA (FROM CUSTOMS REPORTS)**

YEAR	Butter		Cheese		Ghee		Total
	Cwt.	£	Cwt.	£	Cwt.	£	
1921 ..	24	234	66	713	308	1,799	2,746
1922 ..	167	886	199	1,841	776	3,929	6,756
1923 ..	499	2,885	394	2,269	1,277	5,922	11,076
1924 ..	720	6,287	350	2,145	1,172	5,980	14,412
1925 ..	560	2,087	162	909	62	420	3,413
1926 ..	792	7,389	180	1,456	54	448	9,293
1927 ..	507	4,938	149	1,304	116	786	7,028
1928 ..	513	4,917	106	523	152	1,243	6,683
1929 ..	2,631	15,126	143	824	596	4,953	20,903
1930 ..	7,798	53,065	521	2,919	805	4,979	60,963
1931 ..	6,326	35,618	654	2,916	1,015	3,866	42,400
1932 ..	9,242	40,604	512	2,421	1,710	6,755	49,780
1933 ..	7,514	27,268	473	2,186	2,337	7,184	36,638
1934 ..	11,330	41,266	602	2,576	2,946	8,004	51,846

TABLE 2
DOMESTIC EXPORTS OF BUTTER
DISTINGUISHING UNITED KINGDOM AND OTHER DESTINATIONS

YEAR	To United Kingdom	To other destinations	Total
			Cwt.
1929 ..	1,052	1,579	2,631
1930 ..	6,534	1,264	7,798
1931 ..	5,153	2,437	6,326
1932 ..	7,999	1,243	9,242
1933 ..	5,383	2,131	7,514
1934 ..	7,660	3,670	11,330

TABLE 3
IMPORTS OF DAIRY PRODUCTS FOR HOME CONSUMPTION IN KENYA
AND UGANDA (FROM CUSTOMS REPORTS)

YEAR	Milk, Condensed, etc.	Butter		Cheese		Ghee		Total
	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£
921 ..	Report for nine months	for nine months only	16	201	4,209	14,631	28,061	
922 ..	3,351	12,817	36	412	16	201	14,631	28,061
923 ..	3,105	11,912	5	74	13	180	5,253	13,717
924 ..	4,379	17,008	10	122	29	292	8,592	28,740
925 ..	6,528	22,990	24	283	32	401	7,309	42,685
926 ..	8,009	29,132	23	275	118	1,397	7,099	49,838
927 ..	8,531	27,321	61	675	161	1,780	10,475	46,832
928 ..	12,170	39,155	147	1,624	262	2,980	8,986	36,372
929 ..	14,018	40,310	153	1,565	285	3,146	8,910	37,164
930 ..	13,246	31,839	41	460	101	1,117	6,553	21,634
931 ..	11,434	23,807	110	803	122	1,228	5,813	14,891
932 ..	7,045	14,864	10	81	50	505	5,647	14,805
933 ..	7,724	14,322	21	114	60	491	8,310	18,245
934 ..	7,552	13,435	8	71	77	672	10,995	23,652
								37,830

TABLE 4
TRANSFERS OF KENYA DAIRY PRODUCTS TO UGANDA
(FROM CUSTOMS REPORTS)

YEAR	Butter		Cheese		Ghee		Total
	Cwt.	£	Cwt.	£	Cwt.	£	£
1926 ..	988	8,949	187	1,701	192	1,533	12,183
1927 ..	749	7,591	192	1,427	142	801	9,819
1928 ..	706	7,491	145	1,020	155	1,187	9,698
1929 ..	779	7,013	227	1,847	252	1,998	10,858
1930 ..	863	7,178	245	1,279	457	2,460	10,917
1931 ..	726	6,075	153	737	589	2,848	9,660
1932 ..	759	6,186	85	490	1,002	3,472	5,329
1933 ..	755	5,186	109	598	90	402	2,198
1934 ..	769	5,351	*	*	2,075	5,374	—

*Not stated.

TABLE 5
DAIRY PRODUCTS SOLD BY EUROPEANS
(FROM AGRICULTURAL CENSUS REPORTS)

YEAR	Milk	Butter	Cheese	Ghee
	Gallons	Lb.	Lb.	Lb.
1929 ..	1,027,375	1,370,915	228,836	230,595
1930 ..	1,101,704	1,519,989	210,415	170,485
1931 ..	1,018,868	1,354,363	181,364	115,887
1932 ..	1,138,743	1,778,876	248,463	73,514
1933 ..	*939,434	1,542,368	265,555	91,530

*NOTE.—The total consumption of milk has been estimated at 1,650,000 (see paragraph 42).

TABLE 6
BUTTER PRODUCTION, TRADE AND APPARENT CONSUMPTION

YEAR	Creamery production	Farm production	Total supplies	Exports	Transfers to Uganda	Total exports	Apparent local consumption
1930 ..	1,207,295	312,694	1,519,989	873,448	96,656	970,104	549,885
1931 ..	1,069,043	285,320	1,354,363	708,512	81,312	789,824	564,539
1932 ..	1,428,471	350,405	1,778,876	1,035,104	85,008	1,120,112	658,764
1933 ..	1,235,019	307,349	1,542,368	841,568	84,560	926,128	616,240

TABLE 7
BUTTER LEVY STATISTICS
(FROM BUTTER LEVY ADVISORY COMMITTEE)

YEAR	Levy received from producers	Quantity of butter on which levy received	No. of lb. of butter exported (excluding Tanganyika, Belgian Congo, Zanzibar and Seychelles)	Subsidy to butter exporters
	Sh. cts.	Lb.	Lb.	Cts. per lb.
1932 ..	152,554 94	610,220	897,382	17.000
1933 ..	151,571 32	606,285	705,047	20.655
1934 ..	165,728 20	662,913	1,081,860	15.319

TABLE 8

DAIRY FARMS IN KENYA (EUROPEAN AREAS)—ANALYSIS OF AGRICULTURAL CENSUS, 1932

TYPE OF FARM	No. of Occupiers	Area Occupied	Cows and Heifers over 3 years	SALES OF DAIRY PRODUCE					
				Milk	Butter	Butterfat	Cream	Cheese	Ghee
	No.	Acres	No.	Gallons	Lb.	Lb.	Gallons	Lb.	Lb.
Dairy	232	893,217	34,637	766,288	194,669	421,006	40,035	84,390	73,286
Dairy and wool ..	34	331,022	8,935	94,309	39,500	114,296	6,851	25,572	10,369
Mixed crop and cattle	251	689,076	14,845	147,415	37,818	136,068	28,012	190	10,310
TOTAL OF ABOVE..	517	1,913,315	58,387	1,008,012	271,987	671,370	74,898	110,152	93,965
TOTAL ALL FARMS	2,107	5,199,093	75,342	1,018,868	285,320	675,910	77,063	111,582	96,471

TABLE 9
DAILY MILK SUPPLY TO MUNICIPALITIES
AND TOWNSHIPS

	Gallons
Nairobi ..	2,590
Mombasa ..	968
Nakuru ..	230
Eldoret ..	160
Naivasha ..	110
Kisumu ..	100
Kakamega ..	95
Kitale ..	90
Nyeri ..	40
Nanyuki ..	28
Others ..	109
DAILY TOTAL ..	4,520

Equivalent per annum 1,650,000.

TABLE 10
RETURN TO THE FARMER FOR DAIRY PRODUCE SOLD
IN DIFFERENT WAYS

	Cost of transport from farm to factory	Cost of manufacture	Cost of transport from factory to market	Total cost from farm to market	Price at market	Return to farmer	Return to farmer per gallon milk-equivalent
	Cents	Cents	Cents	Cents	Cents	Cents	Cents
BUTTER (Per lb.)							
(a) Sold locally ..	3	20	4	27	125	98	46
					100	73	34
(b) Sold in neighbouring territories ..	3	20	19	42	125	83	39
(c) Sold in U.K... ..	3	19	21	43	62	19	9
					71	28	13
					59	46	22
					98	55	26
MILK (Per gallon)							
Sold in Nairobi ..	8	—	—	20	28	100	72
						85	57
						70	42
						42	42
CHEESE (Per lb.)							
(a) Sold locally ..	8	25	4	37	80	43	43
(b) Sold in U.K... ..	8	25	21	54	39	(—15)	(—15)
GHEE							
Sold locally ..	4	10	—	14	50	36	13



COLONY AND PROTECTORATE OF KENYA

**INSPECTION NOTE ON THE KENYA
COTTON CROP IN NOVEMBER AND
DECEMBER, 1935**

BY

S. MILLIGAN

X9(1781). 687. N3
GS

Price : 50 cts.

NAIROBI
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1936

Foreword

In the middle of last year His Excellency the Governor, Sir Joseph Byrne, approached the Empire Cotton Growing Corporation in London with a view to securing the interest of the Corporation in Kenya cotton, and as a result the Corporation agreed to send a cotton expert, Mr. S. Milligan, to Kenya to advise the Government on the best means of extending cotton production.

Mr. Milligan duly arrived in Kenya in October, 1935, and his "Inspection Note" relating to cotton, which was prepared as a result of his visit, is published herein.

The main conclusion at which he arrived is that our knowledge of cotton growing, which requires investigational work to acquire, should not lag behind cotton development, and his main recommendation is that facilities should be provided to enable further investigations to be started forthwith.

The proposals made by Mr. Milligan have been accepted. Three temporary Agricultural Officers are to be appointed to enable the technically trained Agricultural Officers to undertake the necessary additional investigational work. The visit of a suitable Agricultural Officer to Barberton, the central cotton station of the Empire Cotton Growing Corporation, is being arranged. The services of the entomological and pathological sections of the Department will be called upon as available and as required.

The thanks of officers of the Department of Agriculture and of all those interested in sound cotton development are due to Mr. Milligan for his valuable and encouraging visit and report.

Nairobi,

18th March, 1936.

H. B. WATERS,
Director of Agriculture.

Inspection Note on the Kenya Cotton Crop in November and December, 1935

By S. MILLIGAN.

Advice on the policy to be pursued in the development of cotton-growing in Kenya was sought from the Empire Cotton Growing Corporation and I was deputed by that body to pay a brief visit to the Colony in an advisory capacity towards the end of the year. To make a thorough inspection of a crop, and in particular of a cotton crop, it should be observed throughout the growing period, but as such is not feasible the next best thing is to see it at the beginning of the picking season when the first plantings are just opening and the later are sufficiently young to give some idea of the earlier growth. November and December were thus selected as the most suitable months and, on the whole, the time turned out to be satisfactory.

This note is not in the nature of a Report. No detailed description of the cotton-growing area is attempted. The absence of rain guages in the Nyanza Province renders it impossible to discuss climatic conditions in the main cotton area. I have merely set down what I have seen and based my recommendations on what I consider to be the fundamental difficulties existing at present, and those likely to be encountered in the future.

Owing to the high altitude of the best arable tracts and the low rainfall by far the greater part of the remainder, cotton-growing in Kenya will always remain a limited possibility. It is already established on the Coast and in the Lake basin, and efforts are being made to extend it to certain of the lower lying areas in the Central Province where altitude and rainfall are not too unfavourable, and where some cash crop or other is urgently required in the Native Reserves. Outside these specified areas there seems little hope of extension owing to climatic limitations. The crop is almost entirely grown by the native population.

COASTAL BELT.

The accepted cotton area in the coastal belt may be said to extend from the Colony's boundaries to the north and south within a distance varying between ten to twenty-five miles from the sea.

SOIL.

The typical soil of this area belongs to the light sandy type varying, so far as fertility is concerned, mainly with the amount of organic matter present.

The coast climate is warm and moderately humid, the range in temperatures being comparatively small. Normal years cannot be said to exist, but the following descriptions by the Agricultural Officer for the Coast Province gives a general idea of what may be expected.

"January and February should be mainly dry and hot with strong winds from the northern quarter. March brings the 'grass' rains, but the long rains proper should not begin until April. Coming to a peak in May, they ease off in June. The weather, from being hot and close, gradually becomes cooler and more pleasant. At some stage strong gales may be expected from the southern quarter.

July to September is a cool period, when gentle rains may be expected, though conditions are mostly dry. At this time plant growth is at its most vigorous. With the approach of the short rain season, the weather becomes better and rain may be expected towards the end of October or later. A period of close weather is experienced again until pleasanter conditions set in towards the close of the year."

Rainfall decreases in amount from about 50 inches at the Tanganyika border to 40 inches at Malindi. When normally distributed, this would be quite sufficient for cotton-growing, but on examination, and even more so in practical experience, it is not so favourable as might appear. Heavy downpours are frequently succeeded by severe spells of drought, and the reaction of the latter on the lighter soils and on the plants growing on these, cannot be too good. The heavier soils and those better supplied with organic matter suffer less.

Cotton-growing on the coast is of recent origin, although spasmodic attempts have been made to introduce the crop. The following is a brief résumé of what has happened during the last twelve years :—

1923.—Cotton seed was introduced from Uganda through Mr. Marchant, District Commissioner, Malindi, and Mr. Ghulam Hussain, a Mombasa merchant. The

experiment was limited to the neighbourhood of Malindi and Mambrui. The plantings continued up till 1930 with varying success. The out-turn ranged from 250,000 to 500,000 lb. of seed cotton, the latter figure being obtained in the year 1929-30.

1930.—Was marked by very serious drought, the crop dropping to 50,000 lb. probably due to too late an accepted planting date, that is to say too much reliance on late rains.

1931.—A propaganda for earlier plantings was instituted. This season's crop reached 600,000 lb. of seed cotton. The change in the accepted date of planting was based on the general observation during the previous season that only the early planted fields had survived. A nucleus of seed of the N.17 variety was imported from Uganda, the experience of the previous year having shown that the longer stapled varieties in use produced extremely weak lint. The produce was ginned separately and issued for the following year's crop.

1932.—A real extension in area was attempted, and the crop exceeded 1,000,000 lb. of cotton seed. In this year a system of buying posts was organized.

1933.—A new ginnery was started at Mazeras, and the old ginnery at Malindi was completely renovated. This turned out to be a very dry season, but the crop went up to 1,500,000 lb.

1934.—Another new area (Digo, Coast) was opened. This year was abnormally wet and the cotton was accordingly poor (50 per cent off colour). Early planted cotton for the first time suffered most. The final crop exceeded 2,000,000 lb. for seed cotton, and the loss on grade was to a considerable extent offset through an increase in price.

1935.—Owing to extensive propaganda involving an increase in area, coupled with a more favourable season a considerable increase in out-turn is anticipated. 4,000,000 lb. is expected, but this will depend on the occurrence of late rains as in much of this area early plantings were not possible.

It will be seen that there has been a steady increase in production since the year 1930.

I visited the coast area during the latter days of October and the first week of November. The following are my notes with regard to this season's crop.

RAINFALL UP TO DATE AND GENERAL APPEARANCE OF CROP.

The season has been reasonably good. The early planted fields had, of course, lost much of their bloom and a considerable quantity of the early bolls had failed to mature, due presumably to stainer and boll worm damage. Stainers and pink boll worms were to be found, but in no place to excess. Later plantings were, as might be expected, much fresher, but their fate depends on late rains. Such rains belong to the category of the short rains common to most parts of the Colony, but are, I am told, none too reliable on the coast.

INSECT PESTS.

Little is known of the incidence of insect pests—*Stainers* are recognized, but to what extent the obvious damage to the early crop is due to this agency, it would be difficult to say.

Red Boll Worm is to be found in the area, but Mr. Kirkpatrick (Amani), on a visit some years ago, considered this pest to be under control, under natural agency, at the time. There is obviously a want of information as regards both pests, either of which may prove the final arbiter of the fate of cotton-growing in any country.

SPACING AND CULTIVATION.

This calls for few comments. On the whole it has been well done, considering the difficulties encountered in establishing a recently introduced crop. Stands were, for the most part, good, and the fields had obviously been well weeded throughout the season. Spacing appeared on the whole to be satisfactory, giving plenty of room for interplant cultivation, and at the same time being about right from the point of view of drought.

There was some talk of closer spacings with a view to enhanced yield, but I should be reluctant to depart from the accepted standards to any great extent. The desirability of wide spacings on manured land under good moisture conditions was in many cases very obvious, and, on the other hand, the necessity for giving room for the plant roots during periods of drought was exemplified over and over again during my inspection of the crop in the districts. For the later plantings, spacings might be somewhat reduced, but this should not be done for the earlier and mid-season crops.

TIMES OF PLANTING.

Reference has already been made to the disastrous drought in the year 1930, and to the fact that early planting suffered less than the later crops, although the reverse held good in Digo during the previous season, which was a wet one. There is thus strong reason to believe that the dry years are the most dangerous, and that too much reliance must not be placed on the short rains for finishing off the later sown crop. It was observed in 1930 that well established plants resisted the drought sufficiently well to pull through, whilst those struggling to do so died out. Thus, while very early plantings are to be avoided, there is a strong case for making an early start so that the crop may be well established before it is likely to be subjected to drought. From experience May appears to be the optimum month for starting planting, and the limit of safety to be not later than late June.

VARIETIES.

The crop shows a considerable degree of admixture, but is in the main derived from the seed obtained from Uganda in 1931, namely N.17. This variety has served its turn quite well and the intention to stick to it until something better turns up and has been properly tested is a sound one. The Agricultural Officer in Charge of the Coast Province is, however, not quite satisfied with regard to its resistance to jassid and "blackarm" and is also desirous of obtaining a better drought resister.

Bulk trials of U.442 bred from seed produced in Tanganyika have, therefore, been undertaken near Kilifi. Although there is nothing to be said against this year's crop of U.442 as seen in the field, I should strongly advise against any further extension of area under the variety until its suitability has been thoroughly established. There are quite definite reasons for care regarding this particular selection from U.4. One of its main characteristics is extreme earliness in crop formation, and at Barberton where it originated it is mainly used where a quick growth is imperative, such as in places where the season is a short one, or for late plantings. On account of its early maturing qualities, it is apt to set a somewhat larger crop than it can comfortably mature if weather conditions go against it. At Shinianga (Tanganyika) for example, in the year 1931, it set a heavy crop (1,000 lb. per the acre of seed cotton over 40 acres), while other strains produced practically nothing, but the subsequent weather was

so bad that the lint produced was very harsh and short. There is just a danger of a similar experience on the coast, after the variety in question has become established.

Again from an examination of the crop types grown on the farm at Kibarani (Kilifi), it would appear that some of the other U.4 selections might easily turn out to be better suited generally to local conditions than U.442. U.4. 920, amongst others, looked very well. This is rather a different style of plant—later than U.442, stronger in growth and more consistent as regards lint. Thus, with prospects of a better strain being forthcoming, there appears good reason for delay in increasing the area under U.442 in the district.

GINNING AND MARKETING.

Marketing arrangements are conducted more or less on the lines adopted in Uganda, through a system of buying posts which are inspected by the Department of Agriculture. Seed cotton is graded by the growers into two classes, 1st and 2nd qualities. This grading is entirely on colour and the result is a first grade of very nice appearance which meets a good sale abroad. Grade B. is mostly bought for shipment to Lancashire.

Ginning arrangements appear to be satisfactory—in fact the whole marketing organization leaves little to be desired.

The lint on the coastal belt classes with that produced in Uganda, and fetches a somewhat similar price, benefiting to a slight extent through the greater proximity to Port. It appears desirable that the class of cotton produced should not be altered, without good reason, from the marketing point of view. The quantity produced at the coast is at present far too small to find a market for itself, and it is desirable that it should correspond in class either to that of Uganda or of Tanganyika.

SUGGESTIONS REGARDING PLANT IMPROVEMENT.

The Department have an agricultural station at Kibarani adjoining Kilifi. It is a general station, that is to say, it deals with most of the crops grown in the Province, cotton being one of the principal of these. Variety trials were begun in 1931 with S.G.29, N.17 and Old Malindi, the original cotton of the area. In 1932 the variety Over the Top from Nyasaland was added. In that year Mr. C. A. Thorold, Government Mycologist, discovered Jassid in the plot, and accordingly a U.4 bulk sample, obtained from Tanganyika,

was added to the varieties already grown in the trials. All others were discarded in 1934, and it is now considered that the most suitable cotton for the coastal areas will be found from amongst the various types existing in the U.4 belt. In 1935, ten of Mr. Parnell's U.4 re-selections were planted. Although I found it impossible to make any reliable comparisons between these types owing to the complete lack of uniformity of the plot in which they were growing, it was quite obvious for the current season at least that the U.442 re-selection which has been subjected to a bulk trial in the district, was very far from being the most suitable. Further work, beginning with a properly conducted variety experiment carried through a series of years on reasonably uniform land, is urgently required. I should not advise sticking rigidly to U.4 strains. N.17, which has already established itself as a useful cotton for the Province, ought to be included.

Something ought to be done to improve the lay-out of the station at Kibarani. At present it contains little land suitable for field experiments of any kind. For variety trials or even observation plots some degree of uniformity of soil conditions is imperative. The Agricultural Officer in charge is on very short rations so far as money for the farm is concerned, but is prepared to add a new block which would improve matters.

NYANZA PROVINCE.

Before inspecting the cotton area in the Nyanza Province, I paid a visit to Uganda with the object of seeing the Eastern Province crop in order to acquire some standard from which to judge the neighbouring crop in Kenya, and to see what plant breeding developments had taken place at Serere since my last visit in 1931. The Agricultural Department had already begun work on one of Mr. Parnell's U.4 selections, viz., U.442, and resistance to "blackarm" appeared to be one of the characters inherent in this particular strain. At that time the main stumbling block was the question of the inferiority of its lint to accepted Uganda standards.

During my recent visit, I found that by careful re-selection the lint difficulty had been to a great extent overcome, and that the Department, after extended field trials, were multiplying the latest re-selection from U.442, namely S.P.20, with the object of distributing the seed in certain areas of their Eastern Province.

This development is of great importance to the neighbouring cotton areas in Kenya. It should be remembered that

the nucleus of supply of seed to the Colony has been obtained from Uganda, and that it is desirable, if possible, from the point of view of marketing, etc., to produce the same class of cotton in the two territories.

Nyanza Province contains the most important cotton-growing tract in the Colony, producing in the season 1934-35 9,500,00 lb. of seed cotton out of a total of 11,600,000 lb.

The existing and potential cotton area in the Province may be said to be that part of the Lake basin lying below an elevation of 4,600 feet, or about 900 feet above Lake level. The upper limit is a somewhat arbitrary one, but has been arrived at from practical experience, that is, by the failure to establish cotton crops above this contour. It happens to coincide with the altitude of many of the numerous ridges running through the area, and as cotton-growing appears to be feasible, from climatic considerations, only in the valleys and on the flats this accepted "ceiling" rests on a very sound basis.

The following historical note on the cotton industry in the Nyanza Province has been supplied by the Agricultural Officer in Charge :—

"In the year 1910 the British East African Corporation Limited established a ginnery in Kisumu. The main object of this was to deal with seed cotton produced in Uganda. At this time efforts were made to grow cotton locally in the Seme, Kisumu, Kano and Nyakach locations. They met with little success and were given up in 1913. At the same time cotton-growing continued in the Samia country on both sides of the Sio River and was sold to an agent of the Corporation at Sio Port. The amount bought one year had approximated 50,000 lb.

In 1920 the Uganda Government enacted legislation prohibiting seed cotton from passing to Kenya, and in that year the Corporation removed all their gins to Uganda. Baling of half pressed bales from Uganda continued at Kisumu till 1923, when the export of these bales from Uganda was prohibited. This ended the first phase of cotton ginning in Nyanza.

From 1914 to 1922 cotton cultivation was almost non-existent, with the exception of a small amount grown around Samia and Wamia and sold to the store at Busia or to the ginnery at Tororo.

The Kenya Government decided to encourage cotton-growing in the Uganda border region in 1922 and granted a ginnery site to Capt. Gordon Small. Some seed cotton was bought in 1923, but ginning actually started with the 1923-24 crop.

Following on this four gins were installed in the Kibos Flour Mills and a small amount of seed cotton was produced in the neighbourhood.

Other two sites were granted at Nambare to Messrs. Folkes and Company, and Malakisi to The British Cotton Growers' Association. The latter firm then procured a site at Asembo and actually ginned cotton in 1924. In 1925 they bought approximately 500,000 lb. and in 1926 only 200,000 lb. after which they closed down. The ginnery on Lusumu River, near Mumias, only bought 45,000 lb. seed cotton and the owners were also obliged to close down. In South Kavirondo, the natives were introduced to the crop and sold 24,600 lb. seed cotton. In 1926 an Assistant Agricultural Supervisor was posted to the district for a few months with cotton production as his chief line of work, but the outlook changed and planting ceased.

The third phase only started about the 1931-32 season when prices were at their lowest and 2,166,352 lb. seed cotton sold in No. 1 area. Since that date there has been a vigorous effort made and the natives have gradually increased output."

PRICE INFLUENCES.

At the time when cotton-growing commenced the price was 30 cents per lb. of seed cotton. From that date there was a gradual fall in price till 1933 when it reached its lowest point of 8 cents. In spite of that, production increased steadily from 1931, the "blackarm" year, when just less than one million pounds were sold, till in 1934-35 season, nine and a half million pounds were sold.

It will be seen that cotton-growing in the Province has had a chequered career, but that in spite of all difficulties it is now making steady progress. It may be considered an established industry in the western areas and looks like "having come to stay" in some others. There are now five ginning factories, viz., at Sio, Nambare and Malakisi in the west, at Kibos in the centre and at Kendu in the south.

CLIMATE.

The climate is fairly warm and moist being under the Lake influence. Owing to the absence of rain gauges in the areas where the cotton is actually grown, there has, however, always been a great doubt about the rainfall and its distribution. In most of the western area it is somewhat similar to the adjoining Eastern Province of Uganda and pretty reliable, giving best results as far as cotton is concerned when the crop is planted from June till August. Other parts are less reliable, and many precarious. The Nzoia River Valley appears to be very different from the country bordering on it. Kadimu in Central Kavirondo has less rainfall than Sakwa which is in juxtaposition. The North Kano is wet compared with South Kano. The rainfall on most of the South Kavirondo Lake shore is sufficient, but in the Karungu and Gwassi locations there is a very low fall and cotton planting is said to be useless unless effected in the month of February.

For convenience the cotton-growing areas may be divided into three main tracts :—

- (1) The western area adjoining Uganda.
- (2) A central area, being south and east of the Nzoia River.
- (3) South Kavirondo.

No. 1 Area.

The cotton-growing part of this area has been estimated to extend to about 1,100 square miles with a population of 157,000, producing in the last season nearly 8,000,000 lb. of seed cotton out of a total of about 9,500,000 lb. for the Province. The tribes are mainly Bantu and more progressive than the Nilotic Luo found in the two other areas. They are better cultivators, and anti-erosion methods are occasionally to be met with in the fields. These mainly consist in piling up weeds and refuse in rows in the crops, but a few growers are actually attempting contour ditches and stone bands.

CROPS.

The main products are cotton, finger millet, sorghum and sweet potatoes, with an increasing amount of cassava as a permanent crop. The food crop receives first attention, being planted in February–March, cotton seedlings starting in July. A rotation is observed. Attempts are made to follow millets with cotton in the same season—this results in late plantings, and is in consequence speculative. A short season

millet bred by the Agricultural Department with an opening period of about three weeks less than the local product ought to be very useful for this class of rotation, and two early sorghums from the same source should still further improve matters. The Provincial Agricultural Officer explains that this will help to reduce the encroachment made into the grass and bush reserves of the cultivators. Any measure tending in this direction is of the greatest importance. The Department is also making attempts to introduce legumes interplanted with the cotton crop. It is said to have been successful in years of good rainfall. This year's results, with a pronounced break in the planting rains are, however, not encouraging.

VARIETY OF COTTON GROWN.

This belongs to the N.17 type imported from Uganda. It is rather mixed in the field, but has served its turn and is likely to be grown until Eastern Uganda changes over to a new variety. Trials of fresh strains are in progress—these will be referred to later.

SOILS.

Little study has been made of the soils in this tract. For cotton-growing the type does not appear to matter greatly, so long as the fertility is at the proper pitch—when this is too high, as is sometimes the case, the plant tends to go to vegetative growth to the neglect of “bolling”. When it is too low the result is a miserable and uneconomic crop.

Position as regards exposure to winds is of primary importance. This is generally recognized.

TIME OF PLANTING.

Planting is generally begun in July, if possible, as late crops are precarious. An example of this was to be seen in the current season where a serious “break” in the planting rains was experienced, the bulk of the crop not being got in before the end of August. The normal picking season is from January onwards, but late August plantings are not due to ripen until February at the earliest. Their maturing thus depends on good rains in December and January, and on the absence of insect attack and disease during these months. Such plantings are thus speculative in the extreme. On the other hand very early plantings also suffer through the “break” and do not appear to make a good recovery. July is thus probably the safest month for planting so far as present knowledge goes, but there still remains a good deal to be learned on the subject.

SPACINGS AND SUBSEQUENT CULTIVATION.

Planting is done by the hoe, the spacings recommended being 3 feet by $1\frac{1}{2}$ feet for single plants, and 3 feet by 3 feet to $3\frac{1}{2}$ feet by $3\frac{1}{2}$ feet for two or more. The space per plant is thus about half a square yard, or at the rate of 9,600 plants per acre. This is in accordance with general spacings elsewhere and, as the season is a long one, there is little to be said for, and much against, closer spacings. There is said to be some difficulty as regards excessive seeding at planting time. Heavy seeding produces an attractive appearance immediately after germination, and the seed is issued free of charge, both factors operating against economy!

There seems to be no difficulty as regards subsequent cultivation; a man and his wife can look after $1\frac{1}{2}$ acres of cotton or even more. The Bantu children are said to be cultivating gardens on their own to produce revenue for clothes and schooling.

SELLING ARRANGEMENTS.

Selling is restricted to organized centres where the ginners or their representatives purchase direct from the growers, the buying posts being distributed so that no grower is outside a radius of six miles from the nearest post. A system of zoning was introduced last season.

In newly opened areas only the ginner nearest the area is allowed to open a store selected by Government, and so long as his services are considered satisfactory, he is the sole buyer up to a limit of 200,000 lb. of seed cotton, or until it is considered that more than one can buy economically. The buying system is under close supervision by the Agricultural Department.

GINNING.

There are at present three gineries in the area, each having an exclusive buying zone with a radius of about seven miles. The arrangement is exclusive to the buyer, but not to the seller who can dispose of his produce in whatever zone he pleases. The factories are up-to-date in their equipment. Gins are mainly of the usual roller type, but the double acting roller gin is being given a trial and satisfactory results are said to have been obtained from their use.

No. 2 and 3 Areas.

The western area is the established cotton tract of the Province. No. 2 and 3 Areas may be considered together—they are still on probation, but have prospects in some localities. I consider these are distinctly good in parts of Central

Kavirondo near the shores of the Gulf, in certain localities on the northern shore of the Lake, quite fair in part of the Kano Plains served by the ginnery at Kibos, but not nearly so promising in the more northerly areas further removed from the "Lake influence".

CLIMATE.

There are again no rainfall statistics, but it may be said in general that the precipitation is less than in the west. The climate is considered less favourable to cotton-growing owing to the occurrence of distinct dry periods. This, however, may or may not be a disadvantage as cotton is none the worse for such, provided the weather is sunny and not overcast.

PLANTING DATES.

Correct planting dates have yet to be worked out. They will probably vary for different localities. The accepted date March-May will, it is thought, have to be altered for the inland areas to suit a somewhat different rainfall.

SPACINGS, ETC.

Spacings have been based on those accepted for the western area, and unless experience indicates the necessity for some modification will be continued with.

METHODS OF CULTIVATION.

The crop, being still more or less on probation, cannot be said to have passed the experimental stage although in the aggregate a considerable area has been planted in the current season. This has been effected through "community" blocks which are in reality large scale demonstrations, the policy being to get down to individual holdings as soon as possible. The blocks had been planted earlier than the fields in the western area, and for the most part were carrying a better-grown crop. Many of them had been already picked and had given satisfactory results. There were, however, quite a number of failures, more especially in the north and in parts of the Lake shore areas. I should strongly advise the utilization of the better blocks for cotton-growing in the coming season, where it is not possible to get down to individual holdings. There exists an idea that cotton should not be grown on the same land in successive years. This is not so. The second year's crop of cotton on new land is usually better than its predecessor. By using the "community" blocks for next season the opening up of fresh land would be avoided and much

labour saved thereby. It would be also a safer proceeding in the drier localities as new land is notorious in its moisture demands.

General Remarks on the Nyanza Province Crop.

The absence of meteorological stations in the areas in which cotton is actually grown renders it difficult to make any specific suggestions as regards such questions as times of plantings, choice of soils, etc. These are for local investigation, and can only be arrived at through observation. I am only able to give a few general hints from my own experience :—

Rapid extensions of area of any crop are to be avoided on the experience of one year only for a variety of reasons. This holds especially with regard to cotton as the insect position, a dominating one with regard to this particular crop, is rarely revealed during the first two years.

In the second place no extension should be attempted in localities where the crop has not proved successful. On the contrary, the growers should be actively discouraged until further experience, through small scale trials, shows the true position for the particular area.

As regards times of planting, extremes should be avoided. In general, early plants may be said to have a greater chance of success than late plantings owing to the nature of the cotton plant as regards flowering. On the other hand crops planted too early are apt to get "tired" at the end of a long season, lose their freshness, and are often incapable of responding to improving conditions, while later plantings are more vigorous and responsive. There is thus a strong case in most instances for a middle course. This is especially so in an expanding industry where conditions have not been sufficiently studied. The same advice may be equally applied as regards spacings. Too wide spacings do reduce the potential out-turn of the crop, but overcrowding is too risky except in special cases, and requires intimate knowledge of local conditions which is lacking throughout the cotton-growing areas of the Colony. I should not, therefore, advise any change in the accepted spacings for the Nyanza Province, except in the case of late plantings, which are actually *safer* with more plants to the acre. This is explained from the consideration that the first pickings from a closely grown crop are in general heavier than from one wider spaced, and, as later pickings from late plantings are always speculative, the main objective should be towards increasing the former.

FIELD SITES.

With regard to sites for cotton fields, valleys are in general preferable to open flats, although the latter may be greatly improved by tree planting. Shelter being of primary importance, large fields are to be avoided. The best crops are usually to be found in the small areas adjoining habitations—these are generally better grown, better bolled, and freer from insect trouble.

VARIETIES.

Mention has already been made of developments in Uganda, involving a possible change in the variety grown in the Eastern Province. Although it is not necessary to conform strictly to what happens "over the border", there are obvious advantages in doing so when it comes to a question of growing the same variety, avoiding as it does complications with regard to seed issues. No decision on the question has already been made by the Uganda Department, but it appears likely that if a change over is made it will be to S.P.20 or one of its derivations. This is an entirely different type of cotton to the existing N.17 variety which is at present grown on both sides of the border, and it is perhaps unnecessary to point out that its adoption in Kenya should not be determined on without exhaustive trials to determinize its suitability to local conditions. I should, however, desire to stress the necessity of losing no time in making a start in this direction. A few small scale trials, in which S.P.20 had a place, were carried out this year, but no reliable results can be expected owing to the abnormal season. The tests should not only be on a larger scale, but there should be many more of them; what is really required in the first place is a decision as to whether the new variety is a suitable one for the Province especially for the western areas, what are its advantages and disadvantages, and whether the former outweigh the latter. In short, qualitative rather than strictly quantitative results ought to be the first objective. This removes the necessity for statistical plot work which is so difficult to undertake over a wide area.

All that would be required would be a wide-spread series of observation plots in typical areas, in which the existing N.17 and new S.P.20 varieties could be grown side by side to permit of a comparison as regards essential agricultural qualities, such as resistance to disease and, possibly, jassid, resistance to, and powers of recovery from drought, behaviour during prolonged rainy and cloudy weather, etc. Crop weights should be taken, but these should be considered more as a

check on the opinion formed as regards general suitability of the respective varieties than as a strict comparison of yielding power.

DAMAGE BY DISEASE AND INSECTS.

Far too little is known on this subject. Until recent years cotton-growing has never been taken seriously in Kenya and fundamentals have thus been neglected. I am not certain whether if more was known, much could be done in the field to obviate disease and insect attack, although varieties resistant to jassid on the insect side, and "blackarm" from the point of view of disease, are obtainable. But the position as regards bollworm and the stainers in the various areas should be ascertained. I do not recommend in this case an inquiry, such as is necessary in the Central Province, and which must include a complete life history of these pests, but the degree to which cotton fields in specific localities are liable to insect attack should be known. Such knowledge is an essential part of the wider question of the general suitability of an area for cotton-growing.

CENTRAL PROVINCE.

Attempts to establish cotton-growing in Machakos, Kitui, Embu, Fort Hall, Nyeri and Meru districts belong to the last few years. The crop, it is true, was grown by a few settlers in the early days and by Government (in 1924-25), but no records are available, and it was not until 1933 that any real trials were made by the Department of Agriculture.

In 1933 eight experimental plots were laid down, six of which were in the Kitui and two in the Embu district. The cotton was planted on small areas mainly on new land. Rainfall was poor and crops on these suffered accordingly, the best results being obtained from previously cultivated areas. Two complete failures on the new lands were recorded. In Kitui, however, one of the plots planted during the short rains gave good yields, although the plantings at the time of picking in August are stated to have been covered with stainers, which had apparently arrived too late to do much damage, as the general quality was very good. Both plots at Embu were planted at the end of October, and both failed.

1934—*Kitui*.—Eight plots were planted at Kitui in April, the idea being to try both the long and the short rains as seasons for planting. Little at that time was known of the distribution of the rainfall, germination was poor and the crop withered up and there was no opportunity for replanting.

After further inquiries into rainfall conditions, the idea of a long rains crop was abandoned. One crop survived on the high rainfall area near the township and yielded at the rate of 600 lb. of cotton per acre. Stainer is reported to have been present, but not in large numbers.

About 800 acres were planted in the short rains owing to anxiety on the part of the cultivators to try some new crop. All crops with the exception of cotton died from drought, but the yields were very poor, averaging about 150 lb. per acre of seed cotton. Subsequent to harvesting the plants died out. Few insects were reported. The farm plot at Kitui again survived, and gave about 300 lb. per acre, harvested in April and August.

1934.—Trials at Embu, Fort Hall and Meru.—A series of sixteen plots in these districts were planted in March and early April of 1934. Yields varying from 40 to 265 lb. per acre were obtained in September and October, and later pickings brought these figures up to 400 to 1,200 lb (Fort Hall) per acre. The Fort Hall plots were, however, badly stained.

Machakos.—Elevation 4,000 feet and under.—Short rains plantings (October and November) were badly droughted, but the yields varied from 200 to 450 lb. per acre, reaped in April. Another planting in April yielded from 599 to 834 lb. per acre.

COMMUNITY PLANTING.

Encouraged by the results obtained in the previous season extensive areas were planted to cotton in the Reserves in 1935. Unfortunately, new land had to be employed and it was found impossible to fulfil the programme without having recourse to "community areas".

I was able to inspect these in only three districts, viz., Fort Hall, Embu and Nyeri, weather conditions being too bad to permit of a visit to Meru and Kitui.

It was obvious that the season had been quite unsuitable for community plots on new land. Such requires a good rainfall for all crops, especially for cotton, both at seeding time and subsequently.

In most fields the plants had obviously been badly checked in their early stages, and, worse still, where growth was better, the bolls had been so damaged by disease (probably through stainer) that there appeared to be no hope of anything but a miserable crop from what remained to be harvested. The amount of cotton already picked could not be ascertained, but

this in any case must have been low. Over 90 per cent of the bolls examined by me were badly damaged and although a portion of these may be expected to open, the lint cannot be otherwise than of low grade. Some pickings may yet be obtained from late flowers, but this can only happen through the occurrence of exceptionally favourable weather conditions.

The programme for next year's plantings in the Reserve is on altogether better lines. "Community" planting will be dropped and operations will be confined to individual plots and on previously cultivated lands. Better results may be anticipated. The crop will be more easily established and there should be a better general response on the older lands.

TIME OF PLANTING.

There seems to be at present two main problems. One has been referred to, viz., boll disease which is probably introduced by stainer. The other consists in the relatively low temperature after the long rains. This cold snap lasts from the latter part of June until the end of July. What happens to the crop is not quite clear. Growth is said to cease entirely, but the position with regard to bolls already formed has apparently not been observed. The weather gradually warms up and the plants recover and make renewed growth with the advent of the short rains. It is a most unusual situation and one entirely outside my experience. An extremely difficult problem arises with regard to planting dates. On the one hand, there is no time to get the crop far enough advanced to give a picking before the cold snap and the advent of the dry season makes late planting in the long rains an altogether risky procedure. Planting in the long rains and cutting back before the advent of the short rains would at first sight appear to offer the best solution, but apparently either growth is too slow or the pruning too long delayed for the conditions met with. Possibly the attempt to take two crops is a mistake, and that an early cutting back before the first bolls are open would result in a more vigorous growth capable of maturing during the short rains period. In this case the pruning would be done just before the weather begins to warm up. As a practical method in the Reserves, however, such procedure would encounter great difficulties owing to the disinclination to sacrifice a prospective crop. In the meantime, and until further experience has been gained, it would be well to stick to early plantings without any attempt being made to prune.

The whole position regarding planting times is, as has been already stated, mixed up with the occurrence of boll

disease. If this is due to stainer attack, then a ripening date which will coincide with the off season of this pest (if there is one) will be the most suitable, other things, such as moisture conditions, being equal.

VARIETIES.

Comparative trials have been made between the varieties N.17 and U.422, in experiment plots scattered throughout the districts. Yields had not been fully recorded, as there was still some crop to come, but it was expected that from previous experience U.442 would probably show better results. There is, however, an absence of real information as to how the respective varieties have behaved throughout the season, and in view of the difficulties already mentioned with regard to times of planting and the cold snap during the middle of the season, it is very necessary that more detailed notes with regard to such items as date of flowering, behaviour during unfavourable weather conditions, etc., should be kept. The most suitable variety will be found that which is able to withstand unfavourable conditions and pull off a crop in adverse years. It has yet to be decided whether an early or a late variety is better, and ability to mature bolls during the cold period will also be an important quality in cottons for the Central Province areas. The observation plots already established are undoubtedly on the right lines for gaining information, but a more complete system of recording is required. The present system of depending altogether on yields must be replaced by recorded observation at definite seasons. In this way the leeway in knowledge of what actually happens throughout the growing season ought to be rapidly made up and it will then be possible to speak with much greater certainty than at present regarding the more important factors involved.

BOLL DAMAGE.

Although stainlers appear to be the most likely cause of the extent to which boll disease is prevalent in the fields, the position as regards disease generally should be cleared up. This could be done by frequent despatch of diseased bolls to the Pathological Section at the Scott Laboratory. But no time should be lost in investigating the stainer position as this is almost certain to be the chief limiting factor to the success of cotton-growing in the area. Investigation should cover the whole life history of these insects which spend only part of their existence in the cotton fields. It will occupy the full time of an entomologist, and will require to be carried

on throughout the year. I look for an improvement as regards stainer attack when the scene of operations is shifted from the large community blocks to the small fields adjoining the habitations, especially in those places where poultry are kept, but full relief cannot be expected. A full knowledge of the wild host plants and their connection with stainlers would indicate in which direction, if any, some control could be obtained, and would also indicate the most suitable planting seasons for avoiding attack. It would further indicate generally whether or not cotton-growing in the Reserves is likely to be a permanent economic proposition.

A good deal of damage had been done in some fields by some insect no longer present. I strongly suspect American boll worm, as the damage very closely resembles that usually associated with this pest. If it has been due to the American boll worm, it is more than likely that it would be less in small fields, as the pest prefers to attack the crop in the centre of an area rather than on the outside. In large fields quite a wide margin is usually left untouched on the outside, and as this amounts to much more in smaller areas than in the larger, less damage may be expected in the former. It is a matter that can easily be cleared up through observations during next season.

GENERAL REMARKS AND RECOMMENDATIONS.

I have endeavoured to give a general picture of the position in each of the three Provinces in which cotton is at present grown. It may be said that the crop has become fully established after years of uncertainty and difficulty in the coastal belt and in the Lake area, while in the Central Province it is still on trial. It is likely to be confined more or less to altitudes under say 4,500 feet, and to areas where there is sufficient rainfall. Total annual rainfall figures do not give too good an indication of local suitability to the crop, as their distribution is such that considerable dry periods intervene between the two main seasons, viz., the long and the short rains. With the possible exception of Kitui district cotton is a long rains crop, finishing, however, at the end of the short rains. Although the total crop produced in the Colony is never likely to be a large one, it is of great importance to certain localities. During its period of probation up till the time when considerable extension was effected, it had strong competition from other crops, but now that prices for these have fallen, the situation has changed, and the low prices prevailing for cereals renders it possible for cotton to compete

successfully with these at a moderate yield of say 300 lb. seed cotton per acre. Prices of cotton moreover have now reached a steadier basis, and a sharp fall is not anticipated.

The crop possesses several advantages so far as Kenya is concerned. In the first place it does not compete in local markets, and its price is not thereby affected. Further, owing to a steady demand from India, Japan and Lancashire for the class of cotton produced, it is readily saleable, and preparation for the market, that is ginning and baling, is relatively a simple matter. These considerations are of first importance.

With regard to recommendations for the improvement of the situation, I have already indicated the lines on which they should be carried out. They are rather different for each of the Provinces concerned, and in summarizing it is convenient to treat the areas separately.

COAST PROVINCE.

The most important recommendations for this area are :—

- (1) Trials of varieties at the experimental station of Kibarani, and the improvement of the station itself.
- (2) Investigation with regard to the insect position, more especially the stainiers and the pink boll worm.
- (a) As regards variety trials, an extension to a suitable and more uniform area is required at the Kibarani station.
- (b) The Officer in Charge should receive special training in the work as such trials must include an examination of staple.

This could be readily arranged for by The Empire Cotton Growing Corporation at their central station at Barberton. Barberton would be the most suitable place, as the variety at present in favour originated from the Empire Cotton Growing Corporation station there. I should recommend, therefore, that one Agricultural Officer be deputed for instruction at this station during next season. This would necessitate his being absent from Kenya from, say the month of March until August. He would during this period be able to see the lines on which selections are made, both as regards the plants themselves and their lint. After picking time he would be instructed in the rather intricate technique of lint examination. After his visit to Barberton he would arrive in time to work on similar lines

on his own crop at Kibarani. This would entail the appointment of a temporary officer to carry on the work in his area at Kilifi and Malindi during his absence and for a few years subsequently.

With regard to extension of cotton on the coastal area, this should, I think, be proceeded with on existing lines as there is no visible objection in doing so from either the point of view of unsuitability of land or immediate danger from insect pests, provided the operations are confined to proved areas.

Intensive plantings within the accepted area should, however, be avoided. This is very important. The permanent fertility of the soil in this tract depends at present on sufficient land being available for periodic bush and grass fallows, and an encroachment on these would be dangerous. With this proviso there seem to be no objections to going ahead, if the "Instructor" staff is sufficiently well trained to avoid making mistakes.

NYANZA AREA.

As has already been indicated the chief requirement at present is for trials of the N.20 Uganda selection. There is also a great need for increased knowledge regarding local conditions and as to the suitability of the new areas to cotton-growing. This involves more knowledge regarding times of planting, sites for cotton fields and the position with regard to insects and disease. A sufficiently good "scatter" of plots is required, representing the different conditions to be met with and frequent notes will have to be made as to the progress of the crops and of the incidence of disease and pests during the growing season. These observations will have to be carried out throughout several seasons before reliable results can be obtained. The chief difficulty lies in the fact that three different districts are involved, and that the personal equation does to some extent enter into the question.

I had at one time considered the question of the appointment of a Special Agricultural Officer to carry out the work, but this would involve a great deal of travelling with the possibility of his not being able to carry out inspection at critical times, and, to some extent, a duplication of work. I am now inclined to think that a better method would be that the Agricultural Officers of the three districts should keep their own records, and be given assistance in the form of temporary staff, so as to permit of their devoting the necessary attention to recording. This would be necessary in the case of North

Kavirondo, where the Agricultural Officer is far removed from his most important cotton area, and for the Kisumu area which is at present in the charge of the Provincial Agricultural Officer. The work in South and Central Kavirondo could, I think, be done by the Agricultural Officer in charge. The proposal, therefore, entails the appointment of two temporary Agricultural Officers.

CENTRAL PROVINCE.

The crop here is still in its experimental stage, and should be considered so. I am very doubtful about this area owing to the prevalence of boll disease and suggest that no large extension of area be attempted until the situation with regard to this has been cleared up. Mixed crops would lessen the risk, but the general situation should receive immediate attention. The nature of the trouble can be investigated by the Pathological Section at the Scott Laboratories, and if it is found to be due mainly to "stainer", continuous field investigations throughout the year will be necessary. This can only be properly done by a specialist. One of the three Entomologists of the Department should if possible be detailed for this work.

The relative position of development and knowledge of cotton-growing require adjustment.

My recommendations amount to the employment of three temporary agriculturists to enable the more highly trained officers to undertake the necessary additional work, and the employment of one of the Entomologists on what is really normal duty. The cost to Government will be the pay of the agriculturists plus the necessary travelling expenses and will, therefore not amount to much—at most £1,500 per annum for three years. This can be met from the proceeds of the cotton tax. If at the end of three years the situation should have been clarified and if assistance is then required from the Empire Cotton Growing Corporation, I feel sure that an appeal to that body will receive sympathetic consideration.

In conclusion, I have to express my warmest thanks for the excellent arrangements made by the Headquarter's staff for my tour in the cotton areas, and to a large number of Administrative and Agricultural Officers for their invaluable assistance and the great hospitality extended to me in their Districts and Provinces.

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