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## MINUTES OF EVIDENCE

TAKEN BEFORE THE

# INDIAN INDUSTRIAL COMMISSION,

1916-18.

VOL. II.—BENGAL AND CENTRAL PROVINCES.

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Presented to Parliament by Command of His Majesty.

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### CORRIGENDA.

- On page 141, in line 12 for the figure "1,95,000" read "1,25,000"
- " 609 " 10 omit the word "wet."
- " 687 " 21 transfer the words "a haphazard" to line 15 after the word "in."
- " 747 " 52 for the words "a requirement of railways", read "railway waggons"

G. H. W. DAVIES,  
*Secretary, Indian Industrial Commission*

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*IV B.*—Trivial errors which do not obscure the sense are not included in this slip.

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## QUESTIONS FOR THE ASSISTANCE OF WITNESSES.

### I.—FINANCIAL AID TO INDUSTRIAL ENTERPRISES.

1. Please state if you have had any experience of the raising of capital for industrial enterprises?

If so, what difficulties have you found in doing so?

What suggestions have you to make for removing these difficulties?

2. What are the sources from which capital for industrial enterprises is principally drawn?

2 (a). Can you suggest any new sources from which capital may be drawn?

3. Do you know of any kinds of industrial enterprises where more concerns have been started than can be maintained in full time employment?

If so, please describe the general conditions

4. What is your knowledge or experience of financial aid by Government to industrial enterprises? Government assistance.

5. What are your opinions on the following methods of giving Government aid to existing or new industries:—

(1) money grants-in-aid,

(2) bounties and subsidies;

(3) guaranteed dividends for a limited period, with or without subsequent refund to Government of the expenditure incurred in paying dividends at the guaranteed rate,

(4) loans, with or without interest;

(5) supply of machinery and plant on the hire-purchase system,

(6) provision of part of share capital of companies on the same basis as public subscriptions of capital,

(7) guaranteed or preferential Government purchase of products for limited periods and

(8) exemption for a limited period of the profits of new undertakings from income-tax; and exemption from any tax on an industry, or on any article used in an industry?

6. In which methods of Government assistance should there be Government control or supervision?

What should be the form of such control or supervision? (E.g., Government audit or appointment of Government directors with defined powers for the period during which direct assistance lasts)

7. What is your experience or opinion of Government pioneer factories? Pioneer factories.

[NOTE.—By pioneer factories are meant those established primarily to ascertain whether a new industry is commercially practicable?

By demonstration factories (see Questions 19 and 20) are meant those established primarily for giving demonstrations of, and instruction in, improved methods for industries which have been proved to be commercially practicable.]

8. In what ways and to what extent should Government pioneer industries?

At what stage should pioneer factories be either closed or handed over to private capitalists or companies?

What limits and restrictions, if any, should be imposed on the conversion of successful pioneering experiments into permanent Government enterprises?

9. In your experience what industries are hampered by the conditions under which they are financed as going concerns? Financing agencies

Please describe the method of financing and its effect on the industry in each case

10. In what ways is it possible to give more assistance to industrial undertakings by existing or new banking agencies?

10 (a) Do you think there is need of a banking law?

[See also question 39.]

11. Do you know of any industries which have been developed or assisted by the formation of co-operative societies? Co-operative societies

What were the exact means adopted and what were the results obtained?



12 In your experience what are the industries for which co-operative societies should be encouraged?

What should be the organisation and special objects of these Societies?

12 (a). What suggestions have you to make for industrial development by means of Trade Guilds, such as exist in other countries?

How far should the State encourage the promotion of such Guilds?

Limits of Government assistance

13. What principles should be followed in order to prevent Government aid competing with existing, or discouraging fresh, private enterprises

14 Should there be any limitations on Government aid to a new enterprise if it competes with an established external trade?

## II.—TECHNICAL AID TO INDUSTRIES.

Technical aid in general.

15 What is your personal knowledge or experience of technical and scientific aid provided by Government to industrial enterprise?

16. What is your personal knowledge or experience of noticeable benefits received by local industries from researches conducted by Government departments?

17 On what conditions should the loan of Government experts be made to private firms or companies?

18 Under what restrictions and conditions would you allow publication of the results of researches made by a Government paid expert while attached to a private business?

Demonstration factories

19 Can you suggest any industry for which Government demonstration factories should be adopted and on what lines? (See note below Question 7.)

20 Should any demonstration factories be instituted in your province?

Research abroad

21 What has been your experience of the aid afforded by the Scientific and Technical Department of the Imperial Institute?

What are its advantages and disadvantages?

22. In addition to arrangements made for research in India, is it advantageous to have provision for research for special subjects in the United Kingdom?

If so, for what special purposes is it advantageous to conduct researches in England rather than in India?

23 In what ways can the Advisory Council for Research in the United Kingdom give assistance to Indian industries?

24 Can you suggest for this country any system, similar to that of the Advisory Council for Research in the United Kingdom, for referring research problems to Colleges and other appropriate institutions in India? (See Questions 75 and 76.)

Surveys for industrial purposes.

25 Does the existing knowledge of the available resources of the country—agricultural, forest, mineral, etc—require to be supplemented by further surveys?

26 How should such a survey be organised?

What should be its precise objects?

27 How should its results be made most useful to industries?

27 (a). What is your experience or opinion of the value of Consulting Engineers appointed by Government to aid industrial enterprise by technical advice and by the supply of plans and estimates?

(b) Should such Consulting Engineers be allowed to undertake the purchase of machinery and plant for private firms or individuals? If so, under what conditions?

[See Question 63 *et seq*]

## III—ASSISTANCE IN MARKETING PRODUCTS.

Commercial museums.

28 What is your experience or opinion of commercial museums, e.g., that in Calcutta?

29 If you think commercial museums should be developed and increased in number, what suggestions have you to make regarding their situation, arrangement and working?

Sales agencies.

30. What is your experience or opinion of sales agencies or commercial emporia for the sale as well as the display of the products of minor and unorganised cottage industries.

How should they be developed?

Exhibitions

30 (a) Would travelling exhibitions of such industries be of advantage?

31. What is your opinion or experience of the value of industrial exhibitions?

32 Should Government take measures to hold or to encourage such exhibitions?

If so what should be the Government policy?

33 -What should be the nature of such exhibitions?

Should they be popular in character, or should they aim merely at bringing sellers and buyers into contact?

34. Should trade representatives be appointed to represent the whole of India, in Great Britain, the Colonies and Foreign Countries? Trade representatives.

What should be the qualifications of these trade representatives?

How should their duties be defined?

35. In addition to these trade representatives would it be suitable in some cases also to have temporary Commissions for special enquiries?

36. Should provinces in India itself have trade representatives in other provinces?

How should such representation be arranged for?

37. Should the principal Government departments which use imported articles publish lists of these articles, or exhibit them in commercial museums? Government patronage.

38. With reference to the encouragement of Indian industries, have you any criticisms to offer regarding the working of the present rules relating to the purchase of stores by Government departments?

Have you any changes to propose in the rules themselves?

39. In what way is it possible to assist in marketing indigenous products by more banking facilities, banking facilities, either through existing agencies (such as the Presidency Exchange, Joint Stock and Co-operative Credit Bank) or through new agencies (such as Industrial and Hypothec Banks)? (see also Question 10)

#### IV.—OTHER FORMS OF GOVERNMENT AID TO INDUSTRIES.

40. What conditions should control the supply of Government-owned raw materials (e.g. Supply of raw forest products) on favourable terms? materials.

41. Is there any check at present imposed on industrial development in your province by Land policy, the land policy of Government?

If so, what remedies do you suggest?

(NOTE.—The expression "land policy" is intended to cover laws and regulations relating to settlements, the Government assessment, rents, tenant rights, permission to use land for industrial purposes, and generally all matters connected with the ownership and use of land.)

42. On what principles should Government give concessions of land for the establishment of new, or the development of existing, industries?

43. What criticisms have you to make regarding the working of the present law for the acquisition of land on behalf of industrial companies?

What modifications of the law do you recommend?

43. (a) In what ways and on what terms can Government assist in the provision of subterranean or surplus-surface water for industrial purposes.

#### V.—TRAINING OF LABOUR AND SUPERVISION

44. (a) Do you think that the lack of primary education hinders industrial development? General.

(b) What has been done in any industry of which you have had experience to improve the labourers' efficiency and skill?

45. What steps do you consider should be adopted to improve the labourers' efficiency and skill—

(a) generally, and

(b) in any industry of which you have had experience?

46. What special knowledge or experience have you of the training of apprentices in factories and workshops? Apprenticeship system and industrial and other

47. What advantages have you observed to follow from the establishment of industrial schools? schools

48. On what lines should these two systems of training (e.g. apprenticeship system and industrial schools) be developed and co-ordinated?

49. What has been your experience of day schools for short-time employees, or of night schools?

How should these be developed?

50. Should industrial and technical schools and commercial colleges be under the control of the Department of Education or of a Department of Industries?

What measures should be adopted in order that these two departments should work in unison in controlling industrial schools?

51. What measures are necessary for the training and improvement of supervisors of all grades and of skilled managers? Training of supervising and technical staff

52. What assistance should be given to supervisors, managers and technical experts of private firms to study conditions and methods in other countries? (See Question 77)

53. In what circumstances and under what conditions should industries assisted by Government be required to train technical experts?

Mechanical  
engineers

54 Is there a want of uniformity in the standard of examinations for mechanical engineers held in the various provinces where engineers in charge of prime movers are required in certain cases to be certificated ?

If so, should measures be adopted to make such tests uniform so that the Local Governments and Administrations may reciprocate by recognising each other's certificates ?

55. If the law in your province does not require any qualifications in an engineer in charge of a prime mover, have you any criticisms or suggestions to make ?

#### VI—GENERAL OFFICIAL ADMINISTRATION AND ORGANISATION.

56 What provincial organisation exists in your province for the development of industries ?

What criticism have you to make regarding its constitution and functions ?

57 What organisations do you recommend for the future development of industries in your province ?

Should there be a Board of Industries ?

If so, what should be the functions of such a Board ?

Should it be merely advisory or should it have executive powers with budgetted funds ?

58 If you recommend an Advisory Board, how should it be constituted ?

59 If you recommend a Board with powers, what should be its constitution and how should its powers be defined ?

60 Should there be a Director of Industries ?

What should be his functions ?

Should he be a business man, or a non-expert official, or a technical specialist ?

What other qualifications should he possess ?

61. If you recommend both the formation of a Board of Industries and the appointment of a Director of Industries, what should be the relations between the Board of Industries, the Director of Industries and the Provincial Government or Administration ?

62 What form of machinery do you propose in order to correlate the separate activities of the various provinces as regards industries ?

Is it practicable to form an Imperial department under a single head ?

If so, what should be the functions of such a department ?

Cottage industries

62 (a). Should there be special measures taken or special sections of a Department of Industries organised for the assistance of cottage industries ?

62 (b). Please explain in detail what should be the Government policy as regards cottage industries and how it should be carried into effect ? In this connection, see especially Questions 11, 30, 64 and 72

62 (c). What cottage industries do you recommend should be encouraged in this way ?

#### VII.—ORGANISATION OF TECHNICAL AND SCIENTIFIC DEPARTMENTS OF GOVERNMENT

Universities

63 Are there in your province any technical and scientific departments which are capable of giving assistance to industries ?

If so, what criticisms have you to make regarding their organisation ?

What changes do you recommend ?

Imperial department

64. In order to aid industrial development do you recommend the formation of any new Imperial Scientific and Technical Departments ?

If so, for what subjects or natural groups of subjects ?

65 How should such an Imperial department be constituted and recruited ?

66. What should be the powers of the head of the department ?

If he has executive control of the department, what should be his relationship to the Imperial Government ?

67. What should be the relationship of (an expert, whose services are loaned by the Imperial department to a Local Government, with the Local Government and the latter's Department of Industries ?

Provincial Departments

68 For what subjects should Local Governments engage their own experts or organise their own technical and scientific departments ?

69 Under what direct control should these experts and departments be placed ?

70. On what terms should these experts be employed ?

Technological institutions

71 What is the most suitable way of developing technological research institutions, such as the Indian Institute of Science ?

71 (a). Should there be a Technological Institute for each province, and should such Institutes be allowed to develop as independent units or should they be fitted into a general development scheme for the whole of India, with a central Research Institute ?

72. As regards investigation and research should each Institute be general in its activities and interests, or should each deal with limited group of related subjects ?
73. Should there be any Government control ?  
If so, should this control be Imperial or should it be purely provincial or local ?
74. Is it desirable that measures should be taken to co-ordinate and prevent unnecessary Co-ordination of overlapping of the research activities in Government Technical and Scientific Departments, research, special Technological Institutes and University Colleges ?  
If so, what are your suggestions ?
75. What noticeable results have followed from the institution of the Indian Science Congress ?
76. Can you suggest any ways in which the Congress might become more useful in assisting industrial development ? (See Question 24)
77. What encouragement should be given to Government technical and scientific experts to study conditions and methods in other countries ? (See Question 52.) Study of foreign methods.
78. What difficulties have you experienced in consulting technical and scientific works of reference ? Reference libraries
79. Have you any suggestions to make regarding the establishment of libraries of such works ?
80. Do you think that the establishment of a College of Commerce is necessary in your province ? Colleges of commerce.  
If so, on what lines should it be organised ?
81. In what ways do you expect such a college to assist industrial development ?
- 81 (a). In what ways can Municipalities and Local Boards assist in promoting industrial and commercial development ?

VIII.—GOVERNMENT ORGANISATION FOR THE COLLECTION AND DISTRIBUTION OF COMMERCIAL INTELLIGENCE

82. Have you any criticisms to offer on the present system of collecting and distributing statistics by the Director of Statistics ? Statistical  
What changes do you suggest ?
83. Have you any criticisms to offer on the present system of collecting and distributing commercial intelligence by the Director-General of Commercial Intelligence ? Commercial intelligence  
What modifications do you suggest ?
84. What advantages have you found in the issue of the " Indian Trade Journal " ? Industrial and trade journals
85. Should Government establish or assist industrial or trade journals, either for general or special industries, which would be of real use to persons actively engaged in industries ?
86. What proposals do you make for the dissemination of information of this kind through the various vernaculars ?
87. What advantages have you known to follow the issue of special monographs on industrial subjects or publications like those of the Forest and Geological Departments ? Other publications  
What measures do you advise in order to increase the usefulness of these publications ?
88. Are there any other directions in which Government could collect and publish information of a kind likely to assist industries and trades ?

IX.—OTHER FORMS OF GOVERNMENT ACTION AND ORGANISATION.

89. Are there any products for which a system of Government certificates of quality should be established ? Certificates of quality  
For what products should such certificates be compulsory, and for what products voluntary ?
90. What should be the organisation for testing each class of products and granting certificates ?
91. Are there any classes of materials for manufacture or of manufactured articles for the adulteration of which penalties should be imposed ? Prevention of adulteration.
92. For each such class of goods what organisation do you suggest for purposes of inspection and prosecution of offenders ?
93. Have any other suggestions to make in regard to the prevention of misdescription of goods generally ? Misdescription.
94. What is your opinion on the present state of Indian law relating to marks and descriptions of proprietary and other articles of trade ? Trade marks and trade names.
95. Have you any criticisms or suggestions to make regarding the existing law and regulations relating to patents ? Patent laws

- Registration of partnerships 96 Is it desirable and practicable in the interests of trade, to introduce a system of registration or disclosure of partnerships?
- Roads, railways and waterways. 97 To what extent does the lack of transport facilities by road, rail or water hinder industrial development in your province?  
Have you any specific recommendations to make?
- 98 Have you any criticisms to offer regarding railway freights, the classification of goods, the apportionment of risk, and the regulation of rates?  
What are your proposals?
- 99 Are there any railway extensions necessary in your province to develop new or to extend existing industries?
- 100 Similarly, are there any waterways which should be constructed, extended or improved?
- Shipping freights 101 Are you aware whether the external trade or internal industries of the country are handicapped by any difficulties or disadvantages as regards shipping freights?  
Can you suggest any remedies?
- Hydro electric power surveys. 102. What has been done in your province towards ascertaining the possibilities of developing hydro-electric power?  
Should further investigation be made in this matter?
- 102(a) Have you any criticisms to make regarding the effect of the Electricity Act on industrial enterprise?
- Mining and prospecting rules 103 What difficulties have been experienced in the working of the Mining and Prospecting Rules (1918)?
- 104 Are there any minerals that are essential for industries of Imperial importance that ought to be developed at public expense? (*Eg*, minerals of direct importance for the manufacture of munitions of war, or minerals ordinarily obtained in commerce from one country only)
- Forest Department. 105 From the point of view of industrial enterprise, have you any criticisms to make regarding the policy and working of the Forest Department?  
What suggestions do you make.
106. What measures are practicable to reduce the cost of assembling raw forest products?
107. To what extent is it practicable to concentrate special kinds of these in limited areas?
- 108 What noticeable deficiencies in forest transport are known to you?  
What suggestions do you make for their removal?
- Jail competition 109. Have you any complaints to make regarding competition by jail industries?

## X.—GENERAL.

- 110 What suggestions have you to make for the development of any industry in which you have been actively concerned or interested?
- 111 Does your experience suggest to you any new industry for which India seems peculiarly suited on account of its resources in raw materials, labour and market?
- 112 What supplies of raw materials are known to you of which the use in industry or trade is retarded by preventable causes?  
What are these causes, and how should they be removed?
- 112(a) Have you any suggestions to make regarding the utilization of waste from raw materials?
- 112(b) Have you any suggestions to make regarding Government aid in the improvement of raw material, such as, cotton, silk, sugarcane, etc ?
- 112(c) What industries in the country are dependent on the importation of raw materials and partly manufactured articles from abroad?
- 113 Do you know of any supplies of raw materials for which there is a good case for investigation with a view to their development?