



Report of the Indian Economic
Enquiry Committee

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A

LIST SHOWING THE NAMES OF WITNESSES WHO SUBMITTED WRITTEN STATEMENTS TO THE INDIAN ECONOMIC ENQUIRY COMMITTEE.

<i>Province,</i>	<i>Name of witness.</i>
Assam	1. Rai Bahadur K. L. Barua, Esq., B.L., F.R.E.S., Director of Agriculture and Industries.
Bengal	2. Bengal Chamber of Commerce, Calcutta. 3. R. W. Brock, Esq., Chief Assistant Editor, "Capital," Calcutta. 4. K. C. Roy Chaudhri, Esq., M.L.C., Bengal. 5. R. S. Finlow, Esq., B.Sc., F.I.C., Director of Agriculture, Bengal. 6. Marwari Chamber of Commerce, Calcutta. 7. J. C. Mitra, Esq., F.S.S., F.R.E.S., Professor of Economics and Commerce, Calcutta. 8. Rai Bahadur, J. M. Mitra, M.A., Registrar of Co-operative Societies, Bengal. 9. K. M. Purkayastha, Esq., Secretary, Indian Mining Federation, Calcutta. 10. Rajani Kanta Das, Esq., M.A., M.Sc., Ph.D., Santiniketan. 11. B. Ramachandra Rau, Esq., M.A., L.T., Lecturer in Economics and Commerce, Calcutta University. 12. S. Vaidyanath Ayyar, Esq., M.A., Dip. Econ., Lecturer in Economics and Politics, University of Dacca. 13. A. T. Weston, Esq., M.Sc., M.I.C.E., M.I.E., Offg. Director of Industries, Bengal.
Bihar and Orissa ..	14. H. R. Batheja, Esq., I.E.S., Professor, Ravenshaw College, Cuttack. 15. B. A. Collins, Esq., I.C.S., Director of Industries. 16. A. R. Dicks, Esq., Conservator of Forests. 17. A. C. Dobbs, Esq., Director of Agriculture. 18. Prof. C. J. Hamilton, M.A., Patna University. 19. Prof. E. A. Horne, M.A., Professor of Economics, Patna College. 20. J. A. Hubback, Esq., I.C.S., Commissioner, Bhagalpur Division. 21. Lt.-Col. W. C. Ross, M.B., D.P.H., F.C.S., I.M.S., Director of Public Health.
Bombay	22. R. D. Bell, Esq., C.I.E., I.C.S., Ag. Secretary to the Government of Bombay, Development Department. 23. The Chamber of Commerce, Bombay. 24. P. R. Chikodi, Esq., Belgaum. 25. Dadubhai P. Desai, Esq., M.L.C., Nadiad. 26. G. K. Devadhar, Esq., M.A., Vice-President, Servants of India Society and Bombay Central Co-operative Institute, Bombay. 27. A. G. Edie, Esq., Chief Conservator of Forests. 28. C. E. L. Gilbert, Esq., Conservator of Forests.

Province.	Name of witness.
Bombay—contd.	29. Prof. G. N. Joshi, Wilson College, Bombay. (In collaboration with Prof. P. A. Wadia.)
	30. R. M. Joshi, Esq., M.A., B.Sc. (Lonl.), I.E.S., Professor of Economics, Sydenham College, Bombay.
	31. The Karachi Chamber of Commerce.
	32. A. W. W. Mackie, Esq., I.C.S., Settlement Commissioner and Director of Land Records.
	33. A. M. Macmillan, Esq., I.C.S., Collector of Surat.
	34. J. A. Madan, Esq., I.C.S., Registrar of Co-operative Societies.
	35. Dr. H. H. Mann, D. Sc., Director of Agriculture.
	36. The Ahmedabad Mill owners' Association.
	37. Rai Bahadur P. C. Patil, L. Ag., M.Sc. (Wis.), Deputy Director of Agriculture.
	38. R. G. Pradhan, Esq., B.A., LL.B., M.L.C., Nasik.
	39. L. J. Sedgwick, Esq., F.S.S., I.C.S., Director, Labour Office, Bombay.
	40. Prof. C. N. Vakil, M.A., M.Sc. (Econ.), F.S.S., School of Economics and Sociology, University of Bombay.
	41. Prof. P. A. Wadia, M.A., Wilson College, Bombay. (In collaboration with Mr. G. N. Joshi.)
Burma ..	42. E. J. L. Andrew, Esq., Assistant Protector of Immigrants and Emigrants, Rangoon.
	43. W. L. Barretto, Esq., I.C.S., Deputy Commissioner on Special Duty.
	44. J. J. Bannison, Esq., I.C.S., Superintendent, Lumber Industries.
	45. The Burma Chamber of Commerce, Rangoon.
	46. T. Cooper Esq., M.A., I.C.S., Commissioner, Mandalay Division, Mandalay.
	47. C. W. Dinn, Esq., C.I.E., I.C.S., Officer on Special Duty, Government of Burma.
	48. S. Gopalswami, Esq., Dip. Ec., Rangoon.
	49. S. G. Grantham, Esq., I.C.S., Officer on Special Duty, Land Mortgage Banks, Rangoon.
	50. J. E. Houldley, Esq., I.C.S., Chairman, Rangoon Development Trust.
	51. Prof. H. S. Jevons, M.A., B.Sc., Lecturer in Economics, University College, Rangoon.
	52. J. B. Marshall, Esq., C.I.E., B.Sc., I.C.S., Deputy Commissioner, Thayetmyo.
	53. A. McKerral, Esq., M.A., B.Sc., Director of Agriculture.
	54. A. J. Page, Esq., I.C.S., Commissioner of Settlement and Land Records.
	55. S. A. Smyth, Esq., C.S.I., I.C.S., Financial Commissioner.
	56. F. H. Steavenson, Esq., I.C.S., Registrar of Co-operative Societies.
	57. H. W. A. Watson, Esq., I.F.S., Chief Conservator of Forests.

41. Are you of opinion that the agency which at present collects statistics of wages in agricultural areas supplies accurate returns? If not, what suggestions have you to make for improving the system.

42. The following classifications of agricultural workers have been employed in publishing wage statements in India :—

- (1) *The Datta Report*.—Ploughmen, reapers, weeders, sowers, transplanters and “others”, also, thatchers and gharamis.
- (2) *Bombay Labour Office*.—Field labour (Ploughmen, reapers, sowers, weeders and transplanters), Ordinary Labour (those engaged on large agricultural holdings for the purpose of embankment, well-digging, canal silt-clearing and on the more important work on a farm which sometimes requires a higher degree of skill than that possessed by the field labourer).

Are you of opinion that one of the above systems of classification should be made uniform throughout India, with necessary alterations, or that each province should be left to decide its own system?

43. Most wage returns merely give the daily rate of wages while the frequency of employment is not stated. Should steps be taken to ascertain the regularity of employment or would it be sufficient to obtain a return of monthly earnings?

44. Should the extra payments (in cash or in kind) received at harvest be apportioned and added to the daily or monthly wage?

45. Villages vary in the practice of paying wages. In a few, the custom prevails of paying full wages in kind; in others, payments are made partly in cash and partly in kind, while there is a third group of villages where payments are made entirely in cash. As the rates of converting payments in kind into terms of cash vary according to the personal equation, have you any suggestions to offer as to the fixing of definite standards of conversion?

46. Should wage returns be classified according to canal-irrigated, well-irrigated and unirrigated tracts as well as by districts?

47. In some parts of India, the value of the supplementals given in addition to cash wages is appreciable. The Punjab ploughman, for instance, is stated to receive Rs. 36 per annum in supplementals (excluding food). Is it possible to measure the following supplementals :—

- (a) the dwelling;
- (b) food;
- (c) tobacco;
- (d) clothing;
- (e) bedding?

If so, how?

48. In the Third Wage Census of Bengal, (1916) the “median” was employed for representing the rate of wages in each district, whereas the Third Wages Survey of the Punjab (1922) utilised the “mode” and in addition

gave the frequency distribution of village wage rates. Would you suggest employing—

(a) the "median" together with quartiles, or

(b) the "mode" and the frequency distribution, for representing the distribution of agricultural wages in each province?

49. Would not the utility of the wage returns be enhanced if one could ascertain "the total number of persons" to whom each of the rates applied?

50. Should separate returns of wages be obtained for the "Kharif" and the "Rabi" harvests?

51. Would it be possible to ascertain with any degree of reliability, the hours of labour of agricultural workers?

52. In "Prices and Wages in India" statements of the wages paid to craftsmen and persons engaged in petty industries (rural and urban) are tabulated according to the following classes:—

<i>Rural.</i>	<i>Urban.</i>
Carpenters.	Workers in iron and hardware.
Blacksmiths.	Brass, copper and bellmetal workers.
Masons.	Carpenters.
	Masons and builders.
	Cotton weavers—hand industry.

Are there any other classes of craftsmen, etc., regarding whom information should be supplied?

53. Wage returns for the above classes are published quinquennially (except in the case of the Central Provinces and Berar where annual statistics are compiled) and give the range of "average daily wages". Would it be possible to secure returns showing the number of craftsmen, etc. (classified by crafts, etc.) earning varying rates of wages?

54. How far are the statistics which are at present published reliable?

55. As some of the village artisans are paid in kind as well as in cash, would you follow the same method of evaluating payments in kind and supplements as in the case of agricultural labourers?

56. Would it be possible to secure particulars of the working hours of craftsmen and village artisans?

57. Apart from the enquiry into Wages and Hours of Labour in the Bombay Cotton Mill Industry, 1921, and the *Large Industrial Establishments*. Madras Wage Census, 1922, statements regarding the wages paid in large industrial establishments are very scanty and relate to a few individual firms engaged in about a dozen industries. Are you of opinion that detailed surveys similar to that of the Census of Wages in the Bombay Cotton Mills should be undertaken in every large-scale industry?

58. An attempt to institute a comprehensive and detailed wage census was made in 1921-22, but owing to financial stringency, the need for a competent staff and the absence of powers of compulsion for securing returns from employers, the enquiry was not a success, except in the Bombay Presidency and to a less extent in Madras. In the United Kingdom and the Dominions, returns of wage statistics are compulsory. Are you of opinion that, apart from the question of staff and finances, steps by legislation will have to be taken to secure the statistics?

59. Wages are paid weekly in the Calcutta Jute Mills and monthly in the Bombay Cotton Mills. Should the 'day', 'week' or 'month' be taken as the unit of time for recording wages for statistical purposes?

60. Owing to the prevalence of absenteeism, would it not be necessary to ascertain the number of days worked and the earnings, in addition to the wages and the hours of labour?

61. Workers in urban centres periodically migrate to their villages for several weeks, sometimes months. In endeavouring to ascertain a man's earnings, how would you deal with the difficulties arising from this practice?

INCOME.

62. Appendix I contains a list of estimates of the national income of India. Do you think the diversity of the figures is due to the part played by assumptions in the determination of results from data which are considered imperfect and far from comprehensive?

If so, can you indicate in what direction improvement should be attempted with the object of making the statistics more accurate and reliable?

63. Estimates of income have been made variously on the basis of—

- (a) production only,
- (b) production and the value of certain services based upon wage statistics and occupational figures ascertained in population census, and
- (c) "(b)" supplemented by income-tax statistics.

In view of the incomplete nature of such statistics would you advocate the institution of an income census on the lines of that adopted in Australia in 1914-15, utilising the statistics of wages, income-tax and production as checks? If not, what method would you advocate for the purpose of obtaining a fairly accurate estimate of the total income?

64. For the purposes of income statistics should the unit of enumeration be the individual, the family or the household?

65. What period of time would you take as the unit for measuring income, viz., year (financial or agricultural), half year (harvest,—Kharif and Rabi), month or day?

66. Would you adopt the same unit for the measurement of income of all classes or would you adopt different units (e.g., year for rent payers, month for salaried persons, day for unskilled labourers) and convert them into one large uniform unit for purposes of comparison?

67. In valuing income in kind would you assign any value to the free gift nature such as fuel in villages?

WEALTH.

68. Statisticians attempt to compute national wealth on the basis of one or other of the following methods :—

- (a) from statistics collected through the taxation of income,
- (b) from statistics collected through the annual taxation of capital.
- (c) from estate duty statistics,
- (d) the "inventory" method,
- (e) the "census" method.

Statistics mentioned in "(b)" and "(c)" are not available in India while income tax statistics "(a)" do not include agricultural incomes nor are they complete. Could either of the methods "(d)" or "(e)" or a combination of them be applied to India with any degree of success in obtaining fairly complete information or would you suggest any other method ?

69. Appendix J gives a suggested list of the principal items to be taken into account in framing an estimate of national wealth (private and public). Have you any criticisms to make or suggestions to offer ?

70. Would you value agricultural land—

- (a) on the basis of average sale price noted in the revenue returns,
- (b) as a multiple of land revenue, or
- (c) as a result of a local enquiry ?

71. How would you value buildings in villages where there are no rent data ?

72. In towns where a standard of rent exists would you estimate the value of buildings on the basis of rent or by some other method ?

73. Do you advise a detailed enquiry from every individual in respect of all forms of private wealth ?

74. Do you think the replies as to the values of articles possessed and particularly as to coin, bullion and jewellery will be reliable ? If not, what methods would you adopt to obtain reliable information ?

75. Considering the difficulty involved in obtaining values of some of the articles included in *public* wealth, would you be satisfied with rough estimates only ?

COST OF LIVING.

76. What methods do you consider should be adopted in British India for measuring variations in the cost of living of different classes and sections of the community in (a) urban and (b) rural areas ?

77. Are you of opinion that the "mass-unit" system applied in preparing the Bombay Cost of Living Index Numbers is suitable in view of the enormous differences in consumption by the heterogeneous communities comprising urban populations in India ?

78. In Appendix K is a list of publications containing "family budgets".

It would appear that there are three alternative methods for collecting information :—

- (a) by complete house-to-house inquiries,
- (b) from typical families, or
- (c) by random sample.

79. During what length of time should the expenditure of a householder be continuously recorded for the purpose of obtaining a budget which will reflect normal conditions ?

80. For what proportion of the population of a unit should family budgets be collected so as to afford fairly reliable data ?

81. Should expenditure on “drink”, “drugs”, “religious and social ceremonies”, “gifts to relations” and “entertainments” be included among the items of expenditure in a family budget ?

82. It is generally admitted that statistics of prices are unsatisfactory and unreliable. What steps, would you suggest, should be taken to improve the methods of reporting prices (including the grading of commodities) ?

INDEBTEDNESS.

83. Apart from the “haisiyat” statements of co-operative societies, mortgage returns for agricultural lands and settlement reports (*e.g.*, for districts of Burma), what other official records contain information relating to indebtedness ?

84. If it were decided to institute enquiries into indebtedness should the unit of measurement of indebtedness be—

- (a) the individual,
- (b) the family, or
- (c) the household ?

85. Do you approve of the following as the main heads about which data should be collected or would you recommend a more detailed enquiry :—

- (i) Amounts originally borrowed—
 - (a) cash,
 - (b) produce, for food
for seed } in case of agriculturists only.
- (ii) Accumulation of debt.
- (iii) Repayments.
- (iv) Debt outstanding.
- (v) Rate of interest charged.
- (vi) Security.
- (vii) Chief purpose for taking the loan.
- (viii) Method of repayment ?

86. Should information regarding indebtedness be collected by special intensive enquiries, or do you think that the result of a general survey will be reliable?

INITIAL ECONOMIC SURVEY.

87. It is suggested that the initial economic survey should consist of two sections as follows:—

Section I.—Censuses to be undertaken by central or provincial authorities by special arrangement (*e.g.*, through heads of departments, factory inspectors, heads of firms, etc.)—

(a) Census of Production—

- (i) agriculture;
- (ii) factories and other large industrial establishments;
- (iii) mining;

(b) Census of Wages of—

- (i) workers in large industrial establishments and mines;
- (ii) State and Municipal employees;
- (iii) employees in private firms;
- (iv) transport workers;
- (v) other persons engaged in State regulated occupations.

(c) Census of Wealth—

- (i) private—collective;
- (ii) public (Government and local bodies).

Section II.—A local enquiry into

(a) the production of—

- (i) cottage industries;
- (ii) minor forest products;
- (iii) fruit;
- (iv) dairy and pastoral products;
- (v) fish.

(b) the wages of—

- (i) craftsmen, artisans and employees in minor industries;
- (ii) agricultural labourers;
- (iii) unskilled labourers (urban and rural);

(c) the income

- (d) the "individual" wealth (private) } of (i) individuals.
 (e) the indebtedness } (ii) families, or
 (f) the cost of living } (iii) households.

Have you any criticism to offer or any suggestions to make on the above? /

88. With regard to question No. 87, Section II (a), would it be sufficient to ascertain the total production of the village? If so, what agency would you employ?

89. Would you employ the results of the local enquiry and figures of production obtained by the revenue agency as checks on each other?

90. With regard to question No. 87, Section II (b), do you think answers elicited by questions at a house-to-house visit will be sufficiently reliable or would you suggest any other method of getting reliable information?

91. With regard to questions No. 87, Section II (c), (d), (e), and (f) should the enquiry be—

(i) by intensive study (*i.e.*, by personal observation and independent verification of information elicited), or

(ii) by merely recording answers to questions?

92. In either case what agency would you employ? If a new agency is suggested, what should be its character?

93. How long do you think that an initial survey of the nature recommended by you would take? Can you afford any approximate idea of its cost?

PERIODICAL SURVEYS.

94. Do you consider the initial economic survey (mentioned in question No. 87) should be the precursor to similar periodical surveys with a view to measuring progress or decline and to maintaining the utility of the economic data?

95. If so, at what intervals would you recommend that detailed surveys should be repeated? Would you agree to the suggestion that in course of time the periodical surveys should synchronize with the Population Census?

96. Assuming that detailed surveys should be taken at fairly long intervals (say, quinquennially), should not less detailed information be collected annually as far as possible as is the practice in the Dominions, *e.g.*, in the case of factory production; data of the total number of employees; quantity and value of total output and cost of raw material; in the case of agricultural production; quantity and value of the crops?

97. In some countries detailed statistics are collected in the case of the more important industries every year. Which industries in India would you place in this category?

SPECIAL ENQUIRIES.

98. In such matters as indebtedness, cost of living, fragmentation of holdings, etc., do you think special intensive enquiries might be continued under the direction of provincial statistical organizations during intervals between the periodical surveys?

99. Should the information collected at the initial survey be published for each village, town and city with abstracts for economic tracts and provinces and when possible, for the whole of India?

100. If so, would you recommend among other publications an official Year Book of India similarly to those published for the Dominions ?

101. The Department of Statistics (now part of the Commercial Intelligence Department) has very little responsibility for the collection of statistics and only a limited responsibility for their form. At the same time there exist statistical sections in various departments of administration. Would you advocate the adoption of a comprehensive scheme for co-ordinating and centralizing statistics in British India as has been carried out in the Dominions ?

ORGANISATION.

102. Following the example of the Dominions, do you think it would be desirable for Central and Provincial Bureaux of Census and Statistics with branch offices in districts to be created for the purpose of collecting economic data and the co-ordination of statistics ? If not, what other form of organisation would you suggest ?

103. Within the district, should the village, town and city be the unit of compilation, as in the Population Census ?

LEGISLATION.

104. To establish these Bureaux and to equip them with statutory powers for obtaining the necessary information, would you advise the passing of a legislative measure on the lines of the Census and Statistics Acts in force in the Dominions ?

COST.

105. Do you approve of the suggestion that the cost of the proposed Imperial Bureau of Census and Statistics should be met from the Central Revenues and that of the Provincial Bureaux and the District offices from the revenues of the provinces concerned ?

106. How do you think the cost of (a) the initial economic survey and (b) the recurring charges should be shared ?

107. Are you of opinion that the Municipalities should defray the cost of operations within their areas as in the case of the population census ?

108. Do you think that (a) the District Boards and (b) the villages would be willing in any part of the country to defray the whole or part of the cost of such operations ?

APPENDIX A.

Rural occupations.	Urban occupations.
<p>I.—Agriculture—</p> <p>Rent receivers.</p> <p>Rent payers.</p> <p>Peasant proprietors.</p> <p>Farm servants.</p> <p>Field labourers.</p> <p>II.—Pasture and Raising of Farm Stock, Fishing and Hunting—</p> <p>Skilled.</p> <p>Unskilled.</p> <p>III.—Village Craftsmen.</p>	<p>I.—Industries—</p> <p>Transport.</p> <p>Exploitation of Minerals.</p> <p>Plantations (Tea, coffee, indigo, cinchona).</p> <p>Forestry.</p> <p>Public Force.</p> <p>Domestic Service.</p> <p>Trade</p> <p>(1) Direction, supervision and clerical staff :—</p> <p>(a) Managers,</p> <p>(b) Supervising and technical staff.</p> <p>(c) Clerical staff.</p> <p>(2) Skilled workmen.</p> <p>(3) Unskilled labourers.</p> <p>II —Professional Men.</p> <p>III.—Unproductive—</p> <p>Old and infirm.</p> <p>Incapacitated.</p> <p>Persons living on their own income (e.g., pensioners, jagirdars, pro- prietors of houses).</p> <p>Living on charity.</p> <p>Inmates of jails (those not at work), asylums and almshouses.</p> <p>Professional beggars.</p>

APPENDIX A-2.

NATURAL DIVISIONS OF INDIA.

Classification by Sir Edward Gait.

(Census of India, 1911, Vol. 1, Part I—Report.)

Natural Division.	Rainfall Divisions included.	Administrative Divisions included.
I. Lower Burma . . .	Lower Burma . . .	Arakan, Pegu, Irrawaddy and Tenasscrim Divisions.
II.—Upper Burma . . .	Upper Burma . . .	Magwe, Mandalay, Sagaing and Meiktila Divisions; the Northern and Southern Shan States; Pakokku Hill Tracts and Chin Hills.
III.—Assam . . .	Assam . . .	The Province of Assam.
IV. Bengal . . .	Eastern Bengal Bengal.	The Presidency of Bengal (except Darjeeling) and Sikkim.
V. Orissa and Madras Coast, North.	Orissa . . . Madras Coast, North.	Orissa Division with Orissa Tributary States; districts of Ganjam, Vizagapatam, Godavari, Kistna, Guntur and Nellore.
VI. Bihar and United Provinces, East.	Bihar and United Provinces, East.	Patna, Tirhut and Bhagalpur Divisions and the district of Darjeeling; Lucknow, Benares, Gorakhpur, Allahabad, except Jalaun and Jhansi, and Fyzabad Divisions, and districts of Pilibhit, Shahjahanpur and Farrukhabad.
VII. United Provinces, West, and Punjab, East and North.	United Provinces, West. Punjab, East and North.	Meerut, Kumaun, Rohilkhand (except Shahjahanpur and Pilibhit districts) and Agra (excluding Farrukhabad district Divisions; the districts of Jalaun and Jhansi, and the States of Rampur and Tehri Garhwal; Delhi, Jullundur, Lahore, Rawalpindi (except Shahpur and Mianwali) Divisions and all Native States in the Punjab, except Bahawalpur.
VIII. Kashmir . . .	Kashmir . . .	Kashmir.
IX. The North-West Dry Area.	Punjab, South-West, North-West Frontier Province. Sind. Rajputana-West.	Multan Division (including the Biloch Transfrontier), the districts of Shahpur and Mianwali, and Bahawalpur State; North-West Frontier Province; Sind with Khairpur State; Bikaner, Jaisalmer and Marwar.

Natural Division.	Rainfall Divisions included.	Administrative Divisions included.
X. Baluchistan	Baluchistan	Baluchistan.
XI. Rajputana, East, and Central India, West.	Rajputana, East Central India, West.	Ajmer-Merwara; all States in Rajputana Agency (except Bikaner, Jaisalmer and Marwar), Indore and Gwalior Residencies, and the Agencies of Bhopawar, Malwa and Bhopal.
XII. Gujarat	Gujarat	Bombay Northern Division (except Thana); Cambay, Cutch, Kathiawar and the Agencies of Palanpur, Mahikantha, Rewakantha and Surat; Baroda.
XIII. Central India, East, Central Provinces and Berar and Chota Nagpur.	Central India, East. Central Provinces, West. Central Provinces, East. Berar. Chota Nagpur.	Bundelkhand and Baghelkhand Agencies; Central Provinces and Berar, and Chota Nagpur Division of Bihar and Orissa with Chota Nagpur States.
XIV. The Deccan	Bombay, Deccan Hyderabad, North. Hyderabad, South. Mysore with Coorg. Madras, Deccan.	Bombay Central Division; the districts of Belgaum, Bijapur and Dharwar, the States of Akalkot, Bhor, Surgana, Kolhapur, S. M. Jaghirs and Savanur, and the Agencies of Khandesh, Satara and Bijapur; Hyderabad; Mysore and Coorg; the Madras districts of Bellary, Kurnool, Anantapur and Cuddapah and the States of Sandur and Banganapalle.
XV. Malabar and Konkan.	Malabar Konkan.	The Madras districts of South Canara, Arjengo and Malabar (excluding Laccadives) and the States of Cochin and Travancore; Bombay City; the districts of Thana, Kolaba, Ratnagiri and Kanara, and the States of Janjira, Jawahar and Savantvadi.
XVI. Madras, South East.	Madras, South-East.	Districts of Madras Chingleput, Chittoor, North Arcot, Salem, Coimbatore, South Arcot, Tanjore, Trichinopoly, Madura, Ramnad, Tinnevely, Nilgiris and the State of Pudukkottai.

APPENDIX A-3.

DIVISION OF INDIA INTO ECONOMIC CIRCLES.

Classification by Mr. K. L. Datta.

(Report on the Enquiry into the Rise of Prices in India, 1914, Volume 1.)

Administration or Province.	Economic Circles.	Districts comprised in each Circle.
Assam	Assam	Brahmaputra Valley— Lakhimpur, Sibsagar, Nowgong, Darrang, Kamrup, Goalpara. Surma Valley— Sylhet, Cachar. Hill Districts— Garo Hills, Khasi and Jaintia Hills, Naga Hills, Lushai Hills.
Bengal	Bengal, Northern and Eastern.	North Bengal— Jalpaiguri, Rangpur, Dinajpur, Malda, Rajshahi, Bogra, Pabna. East Bengal— Mymensingh, Dacca, Tipperah, Faridpur.
Bengal with Orissa	Bengal Southern and Western.	Southern Bengal— Chittagong, Noakhali, Backergunge, Khulna, 24-Paraganas. Central Bengal— Murshidabad, Nadia, Jessore. Western Bengal— Birbhum, Burdwan, Bankura, Hughli, Howrah, Midnapur. Orissa— Balasore, Cuttack, Puri, Angul.
Bihar and Orissa	Chota Nagpur	Singhbhum, Manbhum, Ranchi, Hazaribagh, Palamau.
Bihar with Darjeeling	Bihar	North Bihar— Champaran, Saran, Muzaffarpur, Darbhanga, Monghyr (part), Bhagalpur (part), Purnea, Darjeeling. South Bihar— Shahabad, Patna, Gaya, Monghyr (part), Bhagalpur (part), Sonthal Parganas.

Administration or Province.	Economic Circles.	Districts comprised in each Circle.
United Provinces of Agra and Oudh.	Agra Province, East	Eastern Districts— Mirzapur, Benares, Jaunpur, Ghazipur, Ballia, Azamgarh. Sub-montane Districts— Gorakhpur, Basti.
Do. do.	Bundelkhand	Jhansi, Jalaun, Hamirpur, Banda.
Do. do.	Agra Provinces North and West, including Oudh.	The Doab— Saharanpur, Muzaffarnagar, Meerut, Bulandshahr, Aligarh, Muttra, Agra, Etah, Mainpuri, Farrukkabad, Etawah, Cawnpore, Fatehpur, Allahabad. Hill Districts— Dehra Dun, Garhwal, Almora, Nainital. Central District— Bijnor, Moradabad, Budaon, Bareilly, Pilibhit, Shahjahanpur. Oudh— Kheri, Bahraich, Gonda, Fyzabad, Barabanki, Sitapur, Hardoi, Unao, Lucknow, Rae-Bareilly, Sultanpur, Partabgarh.
Punjab with Delhi	Punjab, East.	Jetch Doab— Shahpur, Gujrat. Rechna Doab— Lyallpur, Jhang, Gujranwala, Sialkot. Bari Doab— Multan, Montgomery, Lahore, Amritsar, Gurdaspur. Eastern Districts— Hoshiarpur, Jullundur, Ludhiana, Ferozepore, Hissar, Rohtak, Gurgaon, Delhi, Karnal, Ambala, Hill Districts— Kangra, Simla.
Punjab and North-West Frontier Province	Punjab, West	East of Indus— Muzaffargarh, Mianwali, Attock, Jhelum, Rawalpindi, Hazara. Trans-Indus— Peshawar, Kohat, Bannu, Dera Ismail Khan, Dera Ghazi Khan.

Administration or Province.	Economic Circles.	Districts comprised in each Circle.
Bombay	Sind	Upper Sind Frontier, Sukkur, Larkana, Karachi, Hyderabad, Thar and Parkar.
Do.	Gujarat	Panchmahals, Ahmedabad, Kaira, Broach, Surat.
Do.	Konkan	Thana, Kolaba, Ratnagiri, Kanara.
Do.	Deccan	Khandesh— West Khandesh, East Khandesh. Deccan Plateau— Nasik, Ahmednagar, Poona, Satara, Sholapur. Karnatak— Bijapur, Dharwar, Belgaum.
Central Provinces	Berar	Buldana, Akola, Amraoti, Yeotmal.
Central Provinces with Sambalpur	Central Provinces	Nerbudda Valley— Hoshangabad, Narsinghpur, Saugor, Damoh, Jabulpore, Mandla. Waingunga and Mahanadi Basins— Seoni, Chanda, Balaghat, Bhandara, Drug, Raipur, Bilaspur, Sambalpur. South-Western Districts— Nimar, Betul, Chhindwara, Nagpur, Wardha.
Madras	Madras, North-East	Ganjam, Vizagapatam, Godavari, Kistna Guntur, Nellore.
Do.	Madras, North	Bellary, Kurnool, Anantapur, Cuddapah.
Do.	Madras, South	Central Districts— Chittoor, Chingleput, North Arcot, South Arcot. Cauvery Valley— Salem, Coimbatore, Trichinopoly, Tanjore. Southern Districts— Madura, Ramnad, Tinnevely.
Madras with Coorg	Madras, West	Nilgiris, Malabar, Coorg, South Canara.

APPENDIX B.

METHOD OF CROP REPORTING IN INDIA.

The Existing system and its defects.

Estimates of outturn of crops in India are based on three factors. These are (1) the area, (2) the standard normal outturn per acre, and (3) the estimate representing the relation of the year's crop to the normal per acre. This last is known as the "condition estimate." The quantitative yield of a crop is arrived at by multiplying these factors with each other.

2. As regards *area*, the reporting agency in most provinces is the Patwari (village accountant) or corresponding local revenue officer, and he is capable of reporting the area with accuracy. Such is the practice where the fields have been mapped out and surveyed. There are certain tracts, *e.g.*, permanently settled areas, lands held on privileged tenures and unsurveyed areas, where no trained revenue agency exists, and in these, the estimates of area are more or less conjectural, but steps are taken to revise the figures from time to time by careful comparison with the conditions in the adjoining areas of a similar character for which accurate statistics are available. Estimates of areas under mixed crops are also more or less conjectural, being based on formulæ prescribed by Provincial authorities.

3. On the whole, the figures of area are sufficiently accurate and are stated by the late Mr. Stuart to be better than the corresponding American figures. In America a detailed census of areas of crops grown is taken only once in 10 years and there is no attempt to obtain actual areas for forecasts. There are, however, the two instances mentioned above in which errors are possible in the area estimates reported in India. Instances have also occurred in which patwaris have failed to report area figures in time.

4. The second factor, *the standard normal outturn per acre*, is based on crop cutting experiments and on local estimates in some districts. A statement of the normal yield per acre of land of average quality is maintained in each province by the Agricultural Department. This is tested by crop cutting experiments conducted annually on selected plots of land of average quality. The results of the experiments are carefully scrutinized by the Head of the provincial Agricultural Department who, after further investigations, revises the standards, if necessary. Such revision is usually made once in five years.

5. The true normal is of a visionary character and difficult to determine. In India several attempts have been made to define it and the briefest definition framed appears to be "the average yield on average soil in a year of average character." The figures of normal yield obtained in India have been generally admitted to be unreliable.

6. As regards the third factor, *the condition estimate*, the practice in most districts in India is to take a certain number of annas as representing a normal crop and to estimate the outturn of the year as so many annas higher or lower than that normal. The anna standard, however, has no fixed or uniform value, as the number of annas taken to represent a normal crop is generally sixteen but in some tracts it is twelve. Consequently, the anna estimate is converted into a percentage estimate in accordance with the American notation, 100 being taken to represent a normal crop.

7. The system of making estimates in India has been found in some parts of the country to be very defective. The estimates are for the most part guess work and the tendency is generally to under-estimate a good crop.

• APPENDIX C.

Yield (quantity & value) is required of the following:—

- (1) Ragi, arhar, barbati, lobia, mung, kulthi, urad, field gram, cheik, lentils, cheenar, kangni, kodo or varagu, kutki, kuhud, peas, pigeon or bottle grass, swank or shama, chickling vetch, buck wheat, wudalu or barti.
- (2) Vegetables.
- (3) Fruit (No. of bearing and non-bearing trees, quantity and value of fruit yielded).

- (4) Condiments and spices.
- (5) Sugar, other than sugarcane (*i.e.*, date palm, palmyra palm).
- (6) Other food crops (amaranths, arrowroot, kimi, mahua).
- (7) Coconut.
- (8) Other oilseeds (dill or sowa, mast wood, neerali, niger seed, sunflower, unda).
- (9) Other fibres (agave, sunn hemp, Deccan hemp, sisal hemp, kapok, korai, rhea, sabai grass, swallow-wort).
- (10) Other dyes and tanning materials (arnatto, chayroot, divi-divi, henna, madder, morinda, safflower, saffron).
- (11) Opium (obtainable from Excise statistics).
- (12) Tobacco.
- (13) Cinchona.
- (14) Indian hemp.
- (15) Other drugs and narcotics.
- (16) Fodder crops including oats.
- (17) Miscellaneous non-food crops, (*e.g.*, mulberry).
- (18) Fan leaf.
- (19) Dried fruit (? whether it should be included under the "food" group of "cottage industries") including raisins and currants.

APPENDIX D.

LIST OF FOREST PRODUCTS.

- (1) *Timber.*
- (2) *Fuel*
- (3) *Charcoal.*
- (4) *Fibres.*
 - (a) From leaves, *e.g.*, "Kittal" fibre from Sago Palm leaves, Sisal fibre from the Agave plant,
 - (b) Stem and bast fibres, *e.g.*, Kumbi, Dhamin.
- (5) *Grasses.*
 - (a) Fibre grasses,
 - (b) Thatching grasses,
 - (c) Grazing and Fodder grasses,
 - (d) Others, *e.g.*, Khas-khas.
- (6) *Distillation Products.*
 - (a) Wood-oils, *e.g.*, Sandal-wood oil, tar-oil from teak. Deodar oil,
 - (b) Grass-oils, *e.g.*, Lemon-grass oil,
 - (c) Cutch and Kath,
 - (d) Camphor,
 - (e) Cinnamon-oil.
- (7) *Seeds.*
 - (a) Edible, *e.g.*, Grass-seeds, Bamboo seed,
 - (b) Oil, *e.g.*, Mohwa oil (used for adulterating ghee), Kozum oil Walnut oil,

- (c) Medical,
 - (d) Soap nut.
- (8) *Bark.*
- (a) Tanning, *e.g.*, Babul, Sunari bark from the Laburnum.
 - (b) Dyeing, *e.g.*, Casuarina,
 - (c) Medical, *e.g.*, Kura, Neem, Cinchona, Indian Red Wood
 - (d) Substitute for tea, *viz.*, Yew.
- (9) *Wood Dyes, e.g.*, Red Sanders.
- (10) *Fruit.*
- (a) Edible, *e.g.*, Jack, Mango, Walnut, Jaman, Mangosteen
 - (b) Tanning, *e.g.*, Myrabolams,
 - (c) Medical, *e.g.*, Bacl.
- (11) *Leaves.*
- (a) Edible.
 - (b) Cigarettes, *e.g.*, Tendu,
 - (c) Food for cattle, goats, sheep, horses, *e.g.*, Anjan.
 - (d) Tanning, *e.g.*, Dhaura,
 - (e) Thatching, *e.g.*, Palm.
- (12) *Roots.*
- (a) Edible,
 - (b) Medical, *e.g.*, "Jaman,"
 - (c) Dyeing.
- (13) *Flower.*
- (a) Liquor, *e.g.*, Mahwa.
 - (b) Dyeing, *e.g.*, Palas, dye from the Toon flowers.
- (14) *Spices, e.g.*, Cardamoms.
- (15) *Bamboos and Canes.*
- (16) *Gums and Gum Resins, e.g.*, Gum-kino, Dhaura, Mohin.
- (a) Resins, *e.g.*, Sal, Thingan
 - (b) Olco-Resin, *e.g.*, "Gurjan" Oil,
 - (c) Pine-Resin, *e.g.*, Chir, Blue Pine,
 - (d) Turpentine,
 - (e) Resin.
- (17) *Rubber.*
- (18) *Animal Products*
- (a) Lac,
 - (b) Honey.
 - (c) Bees' Wax,
 - (d) Cocoons,
 - (e) Elephants,
 - (f) Ivory,
 - (g) Horns and skins.
- (19) *Sawdust, e.g.*, Sandal wood for scenting clothes.
- (20) *Miscellaneous Minor products, e.g.*, Mica.

APPENDIX E.

The minerals for which regularly recurring and full particulars cannot be procured are —

Alum.
Amber.
Apatite
Asbestos.
Barytes.
Bauxite (Aluminium).
Building materials.
Clays.
Fuller's earth.
Gypsum.
Hyalite.
Ilmenite,
Ochre.
Soda.
Steatite.
Zircon.

No returns for the year 1923, are given in the case of the following among other minerals —

Agate.
Amethyst.
Antimony.
Aquamarine.
Arsenic.
Alunogen.
Blue vitriol, copperas and magnesium sulphate
Borax.
Bismuth.
Building stone (Common)—
 Slates ².
 Limestones.
 Basalt.
 Granite.
 Sandstones.
 Kankar.
 Laterite.
 Marble ².
Building materials—(e.g., Dolomite, Gneiss, etc.)
Cobalt.
Corundum ².
Celestite.
Fluor spar.
Graphite ¹.
Garnet.
Glass making materials (sands and efflorescent alkali salts).

¹ Approximately trustworthy returns were given in the last Quinquennial Review of Mineral Production, 1914-1918.

² Incomplete returns were given in the last Quinquennial Review of Mineral Production, 1914-1918.

Lignite.
 Lithographic stone.
 Molybdenum.
 Mercury.
 Mineral waters.
 Nickel.
 Phosphates.
 Peat.
 Potash salts.
 Precious stones—(e.g., Opal, Turquoise, Topaz, etc.).
 Rock crystal.
 Rose quartz.
 Refractories—
 Fire-clay.
 Kaolin.
 Quartzite.
 Sillimanite.
 Kyanite.
 Rare minerals—(e.g., Pitchblende, Platinum and Iridosmine. etc.).
 Sulphur.
 Sulphate of soda.
 Sulphite ores.
 Strontium.
 Titanium.
 Uranium.
 Vanadium.

APPENDIX F. (1).

List of large Industrial Establishments for which statistics are available.

For all establishments—

The number of employees.

For Breweries—

- (i) Number.
- (ii) Production in gallons.

For Cotton Mills—

- (i) Number.
- (ii) Authorised Capital, Paid-up Capital and Debentures.
- (iii) Number of looms.
- (iv) Number of spindles.
- (v) Quantity and counts of yarn produced.
- (vi) Quantity and value of woven goods.
- (vii) Amount of Excise Duty.

For Jute Mills—

- (i) Number.
- (ii) Capital authorised, Paid-up, Debentures.
- (iii) Number of looms.
- (iv) No. of spindles.

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For Paper Mills—

- (i) Number.
- (ii) Authorised Capital.
- (iii) Quantity and value of production.

For Woollen Mills—

- (i) Number.
- (ii) Authorised Capital.
- (iii) Number of looms.
- (iv) Number of spindles.
- (v) Quantity and value of production.

For Distilleries—

- (i) Number.
- (ii) Total Issues.

 APPENDIX F. (2)

Statistics are not available for—

(i) *Textiles—*

- Clothing agencies and factories.
- Coir mat and matting works.
- Cotton spinning and weaving establishments not classed as mills.
- Cotton waste factories.
- Dress making and military establishments.
- Hosiery factories.
- Fancy embroidery-chicon.
- Jute mills.
- Gold or Silver thread works.
- Shawl weaving establishments.
- Sewing thread factories.
- Silk mills.
- Silk weaving establishments.
- Tent factories.
- Tailoring establishments.
- Woollen carpet weaving establishments.
- Woollen weaving factories.

(ii) *Minerals—*

- Agricultural machinery.
- Aluminium factories.
- Coke manufacturing works.
- Colliery workshops.
- Copper ore crushing works.
- Enamel-ware works.
- Gold cyanide works.
- Gold washing works.
- Galvanized-ware, tin-ware and steel-trunk factories.
- Iron and brass works and foundries.

(ii) *Minerals—contd.*

Iron and steel producing works.
 Lock and cutlery works.
 Metal works.
 Mica splitting works.
 Oil pumping stations.
 Petroleum refineries.
 Saltpetre refineries.
 Sheet metal works.

(iii) *Transport—*

Dockyards.
 Engineering works.
 Harbour works.
 Port Trust workshops.
 Railway workshops.
 Ship and boat building and repairing works.
 Tramway works.

(iv) *Food, drink and tobacco—*

Bakeries.
 Bidi or Biri works.
 Biscuit factories.
 Butter and cheese factories.
 Coffee works.
 Dairy farms.
 Decorticating factories.
 Flour mills.
 Fruit preserving and canning factories.
 Ice, mineral and aerated water factories.
 Jam and condiment factories.
 Opium factories
 Ham and bacon curing.
 Rice mills.
 Sugar mills and refineries.
 Tobacco, cigar and cigarette factories.

(v) *Chemicals, dyes, etc.—*

Bone crushing mills.
 Candle factories.
 Chemical works.
 Camphor works.
 Dye works.
 Fish oil factories.
 Lac factories.
 Oil mills.
 Paint works.
 Printing Ink works.
 Soap factories.
 Tar distilleries.
 Turpentine factory.

(vi) Paper and printing—

Book-binding works.
Printing presses.

(vii) Processes relating to wood, stone and glass—

Bobbin factories.
Building and contracting.
Carpentry.
Cement works.
China or porcelain works.
Coach building and motor car repairing works.
Furniture workshops.
Glass factories.
Lime works.
Potteries.
Saw mills.
Stone works.
Tile and brick factories.
Miscellaneous.

(viii) Processes connected with skins and hides—

Leather factories (including boot and shoe, saddlery and harness factories)
Boot and shoe repairing establishments.
Tanneries.
Tanning Extract works.

(ix) Miscellaneous—

Arms and Ammunition.
Arsenals.
Brush and Broom works.
Canal foundries and workshops.
Cotton ginning, cleaning and pressing mills.
Despatch box manufactories.
Electrical engineering workshops.
Electric light and power stations.
Engineering workshops.
Fish curing yards and preserving works.
Forage presses.
Galvanizing works.
Gas works.
Gun carriage factories.
Jewellery workshops.
Jute presses.
Kerosene tinning and packing works.
Manure works.
Match factories.
Mathematical instrument factories.
Mechanical transport repair workshops.
Mints.
Motor works.

(ix) *Miscellaneous*—contd.

Musical instrument factories.

Municipal workshops.

Postal workshops.

Rope and twine works.

Rubber works.

Sappers and miners workshops.

Silk filatures.

Slaughter yards.

Sports requisites factories.

Stores factories.

Surgical instrument factories.

Telegraph works.

Umbrella factories.

Water works.

Miscellaneous (not enumerated above)

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APPENDIX G.

(a) The Occupational Classification adopted at the Indian Census of 1921.

(A) Production of raw materials.	(B) Preparation and Supply of material substances.	(C) Public administration and liberal arts.	(D) Miscellaneous.
<p>(I) <i>Exploitation of animals and vegetation.</i>—</p> <ol style="list-style-type: none"> 1. Pasture and agriculture— (a) Ordinary cultivation, (b) Growers of special products and market gardening. (c) Forestry, (d) Raising of farm stock, (e) Raising of small animals. <p>2. Fishing and hunting.</p> <p>(II) <i>Exploitation of minerals.</i>—</p> <ol style="list-style-type: none"> 1. Mines. 2. Quarries of hard rocks, 3. Salt, etc. 	<p>(III) <i>Industry.</i>—</p> <ol style="list-style-type: none"> 1. Textiles. 2. Hides, skins and hard materials from the animal kingdom. 3. Wood. 4. Metals. 5. Ceramics. 6. Chemical products properly so called, and analogous. 7. Food industries including dairies. 8. Industries of dress and the toilet. 9. Furniture industries. 10. Building industries. 11. Construction of means of transport. 12. Production and transmission of physical forces (heat, light, electricity, motive power, etc.). 13. Other miscellaneous and undefined industries. <p>(IV) <i>Transport.</i>—</p> <ol style="list-style-type: none"> 1. Transport by air. 2. " " water. 	<p>(VI) <i>Public Force.</i>—</p> <ol style="list-style-type: none"> 1. Army. 2. Navy. 3. Air force. 4. Police. <p>(VII) <i>Public administration.</i> (Order 45.)</p> <p>(VIII) <i>Professions and liberal arts.</i></p> <ol style="list-style-type: none"> 1. Religion. 2. Law. 3. Medicine. 4. Instruction. 5. Letters and arts and sciences. 	<p>(IX) <i>Persons living principally on their income.</i> (Order 51.)</p> <p>(X) <i>Domestic service.</i> (Order 52.)</p> <p>(XI) <i>Inadequately described occupations.</i></p> <p>(XII) <i>Unproductive.</i>—</p> <ol style="list-style-type: none"> 1. Inmates of jails, asylums and alms-houses. 2. Beggars, vagrants and prostitutes. 3. Other unclassified non-productive industries.

(a) The Occupational Classification adopted at the Indian Census of 1921—contd.

(A) Production of raw materials.	(B) Preparation and Supply of material substances.	(C) Public administration and liberal arts.	(D) Miscellaneous
	<p>3. Transport by road. 4. " " rail. 5. Post Office, telegraph and telephone services.</p> <p>(V) Trade— 1. Banks, establishments of credit, exchange and insurance. 2. Brokerage, commission and export. 3. Trade in textiles. 4. " " skins, leather and furs. 5. " " wood. 6. " " metals. 7. " " pottery, bricks, and tiles. 8. " " chemical products. 9. Hotels, cafes, restaurants, etc. 10. Other trade in food stuffs. 11. Trade in clothing and toilet articles. 12. Trade in furniture. 13. " " building materials. 14. " " means of transport. 15. " " fuel. 16. " " articles of luxury and those pertaining to letters, arts and sciences. 17. Trade of other sorts.</p>		

(b) *The Classification given in "Large Industrial Establishments in India" published by the Department of Statistics.*

I.—Textiles—

Clothing agencies.
 Cotton mills
 Cotton spinning and weaving establishments not classed as mills.
 Hosiery factories.
 Jute Mills.
 Silk mills.
 Woollen carpet weaving establishments, not classed as mills.
 Woollen mills.
 Miscellaneous.

II.—Minerals—

Aluminium factories.
 Colliery workshops.
 Iron and brass foundries.
 Iron and steel producing works.
 Lock and cutlery works.
 Gold washing works.
 Metal works.
 Mica works.
 Petroleum refineries.
 Miscellaneous.

III.—Transport—

Dockyards.
 Harbour works.
 Railway workshops and other factories.
 Shipbuilding and engineering works
 Tramway works.

IV.—Food, drink and tobacco—

Bakeries.
 Biscuit factories.
 Breweries.
 Coffee works.
 Dairy farms.
 Distilleries.
 Flour mills.
 Ice and mineral and aerated water factories .
 Opium factories.
 Pulse factories.
 Rice mills.
 Sugar factories.
 Tobacco factories.
 Miscellaneous.

V.—*Chemicals, Dyes, etc.*—

Bone-crushing mills.
 Chemical works.
 Dye-works.
 Lac factories.
 Oil mills.
 Paint works.
 Soap factories.
 Turpentine factories.
 Miscellaneous.

VI.—*Paper and Printing*—

Paper mills.
 Printing presses.
 Book-binding works.
 Miscellaneous.

VII.—*Processes relating to wood, stone and glass*—

Carpentry.
 Cement works.
 Coach building and motor car repairing works
 Furniture works
 Glass factories.
 Potteries.
 Saw mills.
 Stone works.
 Tile and brick factories (including surkhi mills).
 Lime works.
 Miscellaneous.

VIII.—*Processes connected with skins and hides*—

Leather works.
 Tanneries.
 Miscellaneous.

IX.—*Miscellaneous*—

Aeroplane workshops.
 Arms and ammunition.
 Arsenals.
 Brush works.
 Button factories.
 Canal foundries and workshops.
 Canvas water proofing factories.
 Cotton, ginning, cleaning and pressing mills.
 Electrical engineering works.
 Engineering workshops.
 Forage presses.
 Galvanizing works.
 Gas works.
 Gun Carriage factory
 Jewellery workshops.

IX.—*Miscellaneous*—contd.

Jute presses.
Kerosene, tinning and packing works.
Manure works.
Match factories.
Mathematical instrument factories.
Mechanical transport repair workshops.
Mints.
Municipal workshops.
Motor works.
Packing box factories.
Port Trust workshops.
Postal workshops.
Reed and comb factories.
Rope works.
Rubber works.
Sappers and miners workshops.
Silk filatures.
Store works.
Surgical instrument factories.
Telegraph works.
Umbrella factories.
Water works.
Miscellaneous (not enumerated above)

(c) Classifications of Industries adopted by the Dominions.

Canada.	South Africa.	New Zealand.	Australia.
<ol style="list-style-type: none"> 1. Vegetable products. 2. Animal products. 3. Textiles and textile products. 4. Wood and paper. 5. Iron and steel products. 6. Non-ferrous metals and their products. 7. Non-metallic mineral products. 8. Chemical and allied products. 9. Miscellaneous industries. 10. Construction, hand trades and repairs. 	<ol style="list-style-type: none"> 1. Treatment of raw material, the product of agricultural and pastoral pursuits (excluding tanning). 2. Processes in stone, clay, earthenware and glass. 3. Working in wood. 4. Metal, engineering, machinery, and cutlery works. 5. Preparation, treatment, and preserving of food, drink, condiments and tobacco. 6. Production of clothing (excluding boots and shoes), textile fabrics and similar articles. 7. Books, paper, printing and engraving. 8. Vehicles (mechanically propelled and otherwise), fittings for and parts of vehicles. 9. Ship and boat building and repairing. 10. Furniture, bedding and upholstery. 11. Drugs, chemicals (including fertilizers and by-products), paints, varnishes and allied products. 	<ol style="list-style-type: none"> 1. Animal food. 2. Vegetable food. 3. Drinks, narcotics and stimulants. 4. Animal matters (not otherwise classed). 5. Working in wood. 6. Vegetable produce for fodder. 7. Paper manufactures. 8. Heat, light and power. 9. Processes relating to stone, clay, glass, etc. 10. Metals other than gold or silver. 11. Precious metals. 12. Books and publications. 13. Musical instruments. 14. Ornaments and minor art products. 15. Equipment for sports and games. 16. Designs, medals, type and dies. 17. Ammunition and explosives and fire-works making. 18. Machines, tools and implements. 19. Carriages and vehicles. 	<ol style="list-style-type: none"> 1. Treating raw material, product of agricultural and pastoral pursuits, etc. 2. Treating oils and fats, animal, vegetable, etc. 3. Processes in stone, clay, glass, etc. 4. Working in wood. 5. Metal works, machinery, etc. 6. Connected with food and drink, etc. 7. Clothing and textile fabrics, etc. 8. Books, paper, printing and engraving. 9. Musical instruments, etc. 10. Arms and explosives. 11. Vehicles and fittings, saddlery and harness, etc. 12. Ship and boat building and repairing. 13. Furniture, bedding and upholstery. 14. Drugs, chemicals and by-products. 15. Surgical and other scientific instruments. 16. Jewellery, timepieces and plated ware.

(c) *Classifications of Industries adopted by the Dominions.—contd.*

Canada.	South Africa.	New Zealand.	Australia.
	<p>12. Surgical, dental and other scientific instruments and appliances.</p> <p>13. Jewellery, timpioces and plated ware.</p> <p>14. Heat, light and power.</p> <p>15. Leather and leatherware.</p> <p>16. House building.</p> <p>17. Other industries.</p>	<p>20. Harness, saddlery and leatherware.</p> <p>21. Ships, boats and their equipment.</p> <p>22. House-furnishings.</p> <p>23. Chemicals and bye-products.</p> <p>24. Textile fabrics.</p> <p>25. Apparel.</p> <p>26. Fibrous materials.</p> <p>27. Miscellaneous (not included above).</p>	<p>17. Heat, light and power.</p> <p>18. Leatherware.</p> <p>19. Minor war.s.</p>

APPENDIX H.

DETAILED CLASSIFICATION OF COTTAGE INDUSTRIES.

I. TEXTILES.

- (a) *Cotton Industry*—
- (i) Hand cleaning,
 - (ii) Hand ginning,
 - (iii) Hand spinning.
 - (iv) Hand weaving,
 - (v) Durrie weaving,
 - (vi) Carpet weaving,
 - (vii) Hosiery,
 - (viii) Cotton rope, twine and string,
 - (ix) Tents,
 - (x) Newar tape, etc.
- (b) *Silk Industry*—
- (i) Sericulture,
 - (ii) Reeling,
 - (iii) Carding,
 - (iv) Spinning,
 - (v) Weaving,
 - (vi) Embroidery work *
- (c) *Woollen Industry*—
- (i) Carding,
 - (ii) Spinning,
 - (iii) Weaving of shawls, dhusa, lohis, pattu, blankets, etc.,
 - (iv) Felt (namda) making,
 - (v) Weaving of woollen carpets and durries.
- (d) *Other Fibres (Cocoonut, aloes, flax, hemp, jute, straw, reed, khajur bark, etc.)*—
- (i) Rope and string, etc.,
 - (ii) Mats,
 - (iii) Tat weaving.
- (e) *Dyeing and Calico Printing*—
- (i) Dyeing,
 - (ii) Calico printing, e.g., chintz, curtains, bed covers, table cloths, etc.

* NOTE :—(i) The different branches of the Benares and Surat silk embroidery industry may be classified as follows. (a) Tarkashi or wire makers and gilders, (b) Silver or gold thread or Kalabatun makers, (c) Dyers, (d) Designers and (e) Weavers.

(ii) Among the silk weavers there are three kinds of workers—

- (a) Weavers of ordinary silk cloth such as Kashi silk, sari and dupatta workers.
- (b) Kamkhwab, pot, amru, mashru, etc., workers.
- (c) Brocade weavers.

(f) *Gold and Silver wire weaving and allied Industry**—

- (i) Gota weaving,
- (ii) Lace weaving,
- (iii) Zardozi work,
- (iv) Kamdani work,
- (v) Kamkhwab weaving.

2. TANNING AND LEATHER MANUFACTURE.

- (i) Tanning, leather dressing, dyeing, etc.,
- (ii) Leather articles, *e.g.*, water bags, buckets, shoes, boots, buttons, suit and attached cases.

3. SOAP AND OIL INDUSTRY.

- (i) Vegetable and seed oils,
- (ii) Perfumed oils,
- (iii) Scents and perfumes,
- (iv) Country dhobis' soap,
- (v) Country toilet soap.

4. METALS.

(a) *Brass and Copper*—

- (i) Manufacture of domestic vessels by moulding,
- (ii) Manufacture of domestic vessels by beating sheet brass,
- (iii) Manufacture of tin plated utensils,
- (iv) Manufacture of artistic brass wares by engraving (*Siahah Kalam Work*),
- (v) Manufacture of artistic brass wares by embossing, *e.g.*, Benares brass wares,
- (vi) Lock manufacture,
- (vii) Brass Jewellery.

(b) *Iron, steel and minor metals*—

- (i) Utensils from sheet iron,
- (ii) Implements and tools,
- (iii) Cutlery, scissors, etc.,
- (iv) Steel trunks,

* NOTE :—The gold and silver wire and allied industry may conveniently be treated here. The various branches of this cottage industry are—

- (1) *Kandila, i.e.*, beating out of a piece of plain silver or silver plated with gold leaf into thick wire.
- (2) *Tarkashi, i.e.*, the process of lengthening out the thick wire into thin wire or thread, the thinness being regulated according to the purposes for which it is wanted.
- (3) *Tardabkana, i.e.*, the flattening of the thin wire to produce what is known as 'badla' used for making lace or Kamdani.
- (4) *Kalabatun, i.e.*, the making or twisting of the gold or silver thread round fine silk or cotton thread to produce a composite twist which is used in the weaving of brocade or similar material.
- (5) The manufacture of "Salma" (wire curled into spiral form) and "Sitara" (Stars and spangles) used for embroidery.
- (6) The weaving of gota with silk or cotton warp and "badla" woof.
- (7) *Zardozi, i.e.*, embroidery on fine cotton, silk or velvet cloth with "Salma Sitara."
- (8) *Kamdani, i.e.*, embroidery on cotton, silk or velvet with gold or silver wire and thread.

The artisans confine themselves as a rule to only one branch of the industry.

- (v) Locks and safes,
- (vi) Nails, hinges, screws, etc.,
- (vii) Aluminium articles,
- (viii) German silver household-utensils, jewellery, etc.

5. WOOD, CANE, BAMBOO, REEDS, ETC., INDUSTRIES.

- (i) Coach building,
- (ii) Carts and ploughs,
- (iii) Boat building,
- (iv) Palkis,
- (v) Furniture,
- (vi) Casks,
- (vii) Wood turning and lacquer work,
- (viii) Wood and ebony carving,
- (ix) Combs,
- (x) Tarkashi working, *i.e.*, inlaying of brass wire in wood locally,
- (xi) Wooden toys, *e.g.*, in Benares and Chanapatna (Mysore State).
- (xii) Bamboo and cane work, *e.g.*, bamboo and cane furniture, baskets, etc.,
- (xiii) Moonj basket work,
- (xiv) Khajur and tar fans,
- (xv) Painting,
- (xvi) Upholstery,
- (xvii) Sawing.

6. STONE AND BUILDING INDUSTRIES.

- (i) Stone cups, plates, tumblers, buttons, etc.,
- (ii) Mills or hand chakkis,
- (iii) Inland stone working,
- (iv) Stone cutting and dressing,
- (v) Stone engraving,
- (vi) Well sinking,
- (vii) Masonry-work,
- (viii) Brick laying,
- (ix) Tile manufacturing.

7. CERAMICS.

- (i) Glass bangles and phials,
- (ii) Lac bangles, necklaces, etc.,
- (iii) Manufacture of blown and moulded articles, *e.g.*, flasks for pilgrims to carry Ganges water, jars, chimneys, vases, etc.,
- (iv) Common domestic pottery,
- (v) Coloured and glazed pottery,
- (vi) Art and china pottery,
- (vii) Earthen toys,
- (viii) Mosaic, talc, mica, alabaster, etc., working.

8. FOOD INDUSTRIES.

- (i) Rice pounding and husking,
- (ii) Flour grinding,
- (iii) Bakery and biscuit manufacture,
- (iv) Grain parching,
- (v) Butter, cheese and ghi.

- (vi) Confectionery,
- (vii) Jam and condiments,
- (viii) Butchery,
- (ix) Sugar, molasses and gur,
- (x) Tobacco,
- (xi) Bidis,
- (xii) Cigars and cigarettes.

9. INDUSTRIES OF DRESS, TOILET AND LUXURY.

- (i) Tailoring,
- (ii) Linen embroidery,
- (iii) Knitting,
- (iv) Turban making,
- (v) Cap making,
- (vi) Wig making.

10. CHEMICALS, VARNISH AND PAINTS.

Manufacture of—

- (i) country drugs,
- (ii) dyes,
- (iii) paints and varnish,
- (iv) printing ink,
- (v) saltpetre,
- (vi) indigo,
- (vii) alum,
- (viii) salt,
- (ix) boot and shoe polish,
- (x) writing ink.

11. GOLD AND SILVER INDUSTRY.

- (i) Wire making,
- (ii) Thread making,
- (iii) Leaf making,
- (iv) Ornament making,
- (v) Bidri working (the damascening of silver on lead).

12. SOME MINOR INDUSTRIES.

- (i) Engraving,
- (ii) Musical instruments,
- (iii) Spectacles,
- (iv) Enamelling,
- (v) Imitation jewellery and gilding,
- (vi) Rosaries, lingams and sacred-threads,
- (vii) "Chikan" work,
- (viii) Horn combs, etc.,
- (ix) Ivory articles,
- (x) Sola hat making,
- (xi) Peacock feather fan making,
- (xii) Paper manufacture by hand and power,
- (xiii) Papier-maché work,
- (xiv) Lac manufacture,
- (xv) Water mills,
- (xvi) Working in precious metals.

APPENDIX I.
Estimates of the Annual Income of India.

Estimates of	Published in	Area.	Year.	Total income (in crores of Rupees).	Income per Head. Rs.
1. Dadabhai Naoroji.	Poverty and Un-British Rule in India (1871).	British India	1867-68	340	20
2. Atkinson (F. J.)	"A Statistical Review of the Income and Wealth of British India." Journal of the Royal Statistical Society, June 1902.	Ditto ..	1875	574	30.5
3. Baring, Major (Lord Cromer).	Budget Speech, 1882 ..	Ditto ..	1881 ..	525	27
4. Richard, T. (Sir).	A paper read before the Institute of Bankers, London, July 1881.	Ditto ..	1881 ..	223	10*
5. Horne (E.A.)	"An Estimate of India's National Income." Article in the Bengal Economic Journal, January 1918.	Ditto ..	1891	28
6. Atkinson (F. J.)	(Same as No. 2) ..	Ditto ..	1895 ..	877	39.5
7. Digby (W.)	"Prosperous" British India, 1901.	Ditto ..	1898-99	428	18/9
8. Curzon (Lord)	Budget Speech, 1901 ..	Ditto ..	1901 ..	675	30
9. Giffen, R. (Sir).	Economic Inquiries and Studies.	Whole of India	1903 ..	900	30
10. Balkrishna (Dr.)	Industrial Decline of India, 1917.	Ditto ..	1911-12	{ (a) 1,078 (b) 539 (c) 431.2	21 16.5
11. Horne (E.A.)	(Same as No. 5) ..	British India	1811 ..	980	42
12. Shirras (G.N.)	Report on an Enquiry into Working Class Budgets in Bombay.	Ditto ..	1911 ..	{ (d) 1,204 (e) 1,920	50 80
13. Wadia, (P.A.) and Joshi (G. N.).	The Wealth of India, 1925 ..	Ditto ..	1913-14	1,087	44/5
14. Lupton (A.)	Happy India, 1922 ..	Ditto ..	1919-20	2,854.5	114
15. Shah (K. T.)	Trade, Tariffs and Transport in India, 1923.	Ditto ..	1921-22	1,470	46
16. Sarma (B. N. Sir, Hon'ble).	Proceedings of the Council of State, (6th March, 1921).	Ditto ..	{ 1911 .. 1921 .. 1900-14 1914-22 1,106 1,862	86 over 100 36 58.5
17. Shah (K. T.) and Khambata (K. J.)	Wealth and Taxable Capacity of India, 1924.	Whole of India	{ 1900-22 1921-22	1,380 2,364	44.5 74
18. Shirras (G.F.)	The Science of Public Finance, 1924.	British India	{ 1921 .. 1922 ..	2,598 2,866	107 116
19. Slater (Dr. G.)	The Madras Year Book, 1923	Madras Presidency.	1919-20	{ (f) 434 (g) 475	112

(a) Gross value of agricultural produce.

(b) Net value allowing 50 per cent. of gross value for cost of production.

(c) Net value allowing 60 per cent. of gross value for cost of production.

(d) Framed on the same basis as Lord Curzon's estimate.

(e) By a more elaborate method than that adopted by Lord Curzon.

(f) The non-agricultural income being taken at 40 per cent. of that from agriculture.

(g) The non-agricultural income being taken at 50 per cent. of that from agriculture.

* Not verified.

APPENDIX J.

CLASSIFICATION OF NATIONAL WEALTH OF INDIA.

I. Private (Individual and Collective).

- (i) Land and buildings.
- (ii) Agricultural, dairying and pastoral implements and machinery.
- (iii) Livestock.
- (iv) Manufacturing plant and machinery.
- (v) Mining properties (including plant and machinery).
- (vi) Coin and bullion.
- (vii) Private railways, tramways and telephone systems.
- (viii) Shipping and canal and other waterways.
- (ix) Electric light and power.
- (x) Agricultural and pastoral products.
- (xi) Manufactured products.
- (xii) Mining products (other than gold).
- (xiii) Imported merchandise.
- (xiv) Clothing and personal adornment (including jewellery).
- (xv) Furniture and fittings, books, etc.
- (xvi) Motor vehicles, carriage, etc.

II. Public (Government and local bodies).

- (i) Land, buildings and other property.
- (ii) Livestock.
- (iii) Forests.
- (iv) Irrigation works.
- (v) Water works.
- (vi) Roads and streets.
- (vii) Railways and tramways.
- (viii) Indian Marine.
- (ix) Ports and harbours.
- (x) Arsenals and defensive works.
- (xi) Ordnance and military accoutrements.
- (xii) Military transport and air service.
- (xiii) Manufacturing plant and machinery.
- (xiv) Mints.

APPENDIX K.

FAMILY BUDGETS.

Rural Family Budgets—

- Bhalla, (R. L.) "An Economic Survey of Bairampur Village". Government Press, Lahore, 1922.
- Lucas, (E. D.) "The Economic Life of a Punjab Village". Civil and Military Gazette, Lahore.
- Patro, (A. P.) "Studies in Village Economics". Contains budgets of families in the Ganjam district. Justice Printing Works, Madras.

Annual Reports of the Chanakya Society, Patna College. Beharee Printing Works, Patna.

Report of the Assam Labour Enquiry Committee, 1921-22. Government Press, Assam.

Urban Family Budgets—

- Bombay Labour Office .. "Report on an Enquiry into Working-class budgets in Bombay", 1923. Government Central Press, Bombay.
- Burnett-Hurst, (A. R.) .. "Labour and Housing in Bombay". P. S. King and Son, London.

Middle Class Family Budgets—

- Caleb (Mrs.) .. "Family Budgets of Clerks"—A study of the residents of Lahore City. Mufid-i-Am Press, Lahore.

Unclassified Family Budgets—

- Bombay Census Report 1921. Appendix W. (6,000 Family budgets.)
- Assam Census Report, 1921. (Budgets of different classes).
- Baluchistan Census Report, 1921.