

TABLE 24 : INCOME FROM 'OTHER COMMERCE AND TRANSPORT' SECTOR—INCOME APPROACH

	1950-51			1949-50			1948-49		
	number of persons engaged (thousand)	per head earning (Rs.)	total income (Rs. crores)	number of persons engaged (thousand)	per head earning (Rs.)	total income (Rs. crores)	number of persons engaged (thousand)	per head earning (Rs.)	total income (Rs. crores)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
estimate I									
I. other commerce									
(i) employees . . . . .	2,899	739	214	2,865	739	212	2,833	725	205
(ii) employers and independents . . . . .	5,223	1,987	1,038	5,188	1,989	1,032	5,152	1,950	1,005
(iii) total: other commerce . . . . .	8,122	1,542	1,252	8,053	1,545	1,244	7,985	1,515	1,210
2. other transport . . . . .	1,411	1,034	146	1,384	1,035	143	1,358	1,014	138
3. total: other commerce and transport . . . . .	9,553	1,466	1,398	9,437	1,470	1,387	9,343	1,443	1,348
estimate II									
I. other commerce									
(i) employees not assessed to income tax . . . . .	2,881	739	213	2,847	739	210	2,815	725	204
(ii) employers and independent workers not assessed to income tax . . . . .	5,060	1,681	851	5,025	1,682	845	4,995	1,650	824
(iii) persons assessed to tax . . . . .	181	10,118	183	181	11,324	205	175	10,321	181
(iv) total: other commerce . . . . .	8,122	1,535	1,247	8,053	1,565	1,260	7,985	1,514	1,209
2. other transport									
(i) persons not assessed to tax . . . . .	1,400	919	129	1,373	920	126	1,348	902	122
(ii) persons assessed to tax . . . . .	11	10,540	12	11	11,156	12	10	12,121	12
(iii) total: other transport . . . . .	1,411	999	141	1,384	997	138	1,358	987	134
3. total: other commerce and transport . . . . .	9,533	1,456	1,388	9,437	1,481	1,398	9,343	1,437	1,34

TABLE 25 : INCOME FROM 'OTHER COMMERCE AND TRANSPORT' SECTOR—  
PRODUCT APPROACH

(in Rs. crores)			
(1)	1950-51 (2)	1949-50 (3)	1948-49 (4)
gross trading income originating from products of			
(a) agriculture, livestock, fishery and forestry .	501.5	462.3	432.1
(b) mining, organised industry and small enterprise . . . . .	912.9	858.7	860.6
(c) imports . . . . .	248.2	236.0	230.8
passenger earnings from transport (motor, tramways, river and air) and earnings from air mails carried	65.2	63.9	49.6
others including hotels, cafes, money lenders, film industry, etc. . . . .	169.0	165.1	158.1
total . . . . .	1896.8	1786.0	1731.2
<i>less</i>			
railway freight earnings . . . . .	139.8	135.3	112.4
repairs and depreciation of all vehicles including bullock-carts . . . . .	64.8	50.0	46.3
feed of animals engaged in transport . . . . .	98.3	97.4	91.8
allowance for export trade margin . . . . .	28.8	23.0	20.8
payments to financial intermediaries . . . . .	23.0	22.2	16.2
wastage (of marketable surplus only) . . . . .	68.5	62.0	59.7
Total income . . . . .	1473.6	1396.1	1384.0

2.170. Detailed notes on the method of estimation used by us are presented in the following paragraphs of the section.

(i) The method described in the First Report has been substantially revised in this Report. Thus, the total number of persons engaged in trade is taken from our revised estimates of the working force, and then split up into employers, independent workers and employees on the basis of the 1951 census. The employers, who form a very small proportion of the total self-supporting persons, have been lumped with the independent workers. All the earning dependents, in whose case an accurate split up is not possible, have been treated as employees in view of the census definition of an earning dependent. Figures of average annual earnings of employees in trade and similar services have been collected from a variety of sources, both published and unpublished, and averaged at Rs. 734; this has been rounded off to Rs. 725 for estimation purposes. The available figures of earnings of employers and independent workers in 1948-49 average at Rs. 1,946. This has been rounded off to Rs. 1,950. Estimated earnings in 1949-50 and

1950-51 of both employers and employees have been derived by adjusting the 1948-49 figures with reference to the rate of increase in earnings of factory labour.

(ii) In the second variant of the income approach in table 24, the total number of assessees in the trade sector has been estimated and distributed among different subgroups somewhat arbitrarily, but figures of their income have been obtained from the CBR. Similarly the non-assessees have been divided into employers and employees, average earnings being estimated at Rs. 1,650 (rounded off from Rs. 1,628) and Rs. 725 respectively, the former average having been computed by omitting all quotations clearly above the tax exemption limit.

(iii) Number of persons engaged in transport has been adjusted for railway employees. Porters and coolies in railway stations, however, have been included in the private transport sector, their number being estimated at 30 thousand. This estimate has been used for all the three years. The average income of persons engaged in civil aviation has been estimated at Rs. 3,000 per annum on the basis of data given in *The Bulletin of the Bureau of Economics and Statistics*, Bombay, January, 1951. The average income of persons engaged in road transport is estimated at Rs. 1,009 on the basis of some published and unpublished material, this has been rounded off to Rs. 1,000. The same average has been used for estimating the incomes of workers in transport by water and in transport otherwise unspecified. These figures of average earnings have been approximately adjusted for 1949-50 and 1950-51 by reference to the change in the earnings of factory workers.

(iv) As in trade, similarly for transport, a distinction has been made between assessed and unassessed income in the alternative estimate. Average earnings not subject to tax in road transport is estimated at Rs. 898 by excluding figures clearly above the income-tax exemption level and rounded off to Rs. 900. Similarly for transport by air, the average figure is estimated at Rs. 1,500.

(v) Calculations in respect of the value of product method have been put on a firmer footing on the basis of a more elaborate price differential analysis than was used in the First Report for the derivation of gross and net trade margins.

(vi) In agriculture, some minor changes have been introduced, following the change in method of valuation of crop output. The value of crop output has been derived by use of wholesale prices in a large number of small (primary assembling) market centres. Hence, in place of the earlier procedure of taking (net) wholesale and retail margins (at 5 and 8 p.c. respectively), only one-half of the wholesale margin

has been taken, in addition to the retail margin, to give the income from trade.

(vii) The validity of margins adopted, as taken from the *Report of the Foodgrains Investigation Committee*, has been checked on the basis of trade margins derived from various MRs. Net percentage income from trade as given in the latter agrees very closely with percentages derived from the former, if these margins are calculated on comparable prices.

(viii) Apart from foodgrains, trade margins on other agricultural products have been derived in a similar manner from the MRs by taking all trade and transport margins net of all deductible costs on packing, etc. For purposes of derivation of gross value of trade, similar commodities have been grouped together. A detailed classification of the entire crop output is preliminary to analysis outlined above, and several minor adjustments are necessary before the trade margins could be applied. Thus, for oilseeds it is assumed that there is no retail trade and the only margins allowed are for wholesale trade and relate to factory intake of oilseeds in urban areas. Similarly no retail trade margins have been allowed for jute and cotton. For sugarcane sold to factories also no trade margin has been allowed, as sugarcane output is evaluated at different statutory prices paid by factories to sugarcane growers, the only trade margins used in this connection relate to trade in gur and are based on detailed price differential analysis giving total spread between producers' prices (prices actually used for valuation of gur) and retail prices (derived from a variety of sources for a large number of centres). Finally, for largely imputed items like straw, grass and sugarcane bagasse, etc., no trade margin has been allowed on the hypothesis that there is very little trade in these products.

(ix) Similarly, trade margins on animal husbandry products have been taken for the marketed part of the products on the basis of the MRs. We have not used price differential analysis for this purpose, because these include costs such as packing, transport, etc., which cannot be separated because of the lack of independent data on costs. Nevertheless, the price differentials provide a useful check on the trade margins derived from the MRs and we have made use of the same in the case of products like milk, ghee, eggs, poultry, etc.

(x) Trade margin for timber is based entirely on price differentials and price spread has been worked out in several ways, on the basis of (i) purchase price of timber paid by factories, (ii) price paid by railways, (iii) urban retail price of timber, etc. Margins thus derived have been scaled down arbitrarily to allow for some processing (like sawing) which must enter into value of product. Timber being the most important single item of forest product, the margin thus derived has been applied to all forest products.

(xi) Trade margins for fishery products are taken from the MR on fish. No price differential analysis is possible in this sector, owing to the retail prices being available only for certain qualities of fish in important urban centres like Bombay and Calcutta. No corresponding producers' or wholesalers' prices are available.

(xii) Trade margins for mineral products are based on the spread between price relevant for export or purchase price of minerals paid by metal or mineral processing factories, and pit-head prices used by the GSI for valuation of mineral output. The value of coal consumed by industry and by railways has been worked out from the SSMI and the Railway Board reports. The balance of coal produced is assumed to be absorbed by trade. This has been evaluated at retail price and the difference between retail value and value at pit-head prices gives the gross value of trade in coal. Trading profits for some minerals have been found to be either zero or negligible owing to mining being a part of a vertically integrated industry (e.g., iron and steel, aluminium, etc.). Where trade does exist, particularly for certain scarce products, trade margins have been found to be extremely high.

(xiii) In respect of manufactured products, it has been possible to cover a large part of the output of factory establishments. Output of factories has been classified into homogenous groups for which producers' and retail or consumers' prices are available. Both for cotton textiles and for iron and steel, trade margins adopted refer to controlled prices and do not take into account blackmarket profits or such other illegal gains. For sugar, total spread between ex-factory price as derived from the CM and from the SSMI, and prices paid by consumers both for rationed sugar and for open market sale of sugar, have been taken. The spread gives gross trade margins including all forms of transportation and other costs. Retail prices have been collected for a large number of centres for different parts of country from State bulletins of statistics. For jute manufactures, in the absence of proper retail price of jute bags, etc., procedure adopted has been to derive differential between prices paid by consumer of jute bags (like sugar and cement factories) and ex-factory values of these products. These margins represent gross wholesale margins on jute bags. No extra allowance for retail trade margins has been allowed for, because the volume of retail trade on gunny bags is known to be small. For tea, retail prices have been collected for a large number of centres from the State bulletins of statistics, and the differential between these prices and prices received by the manufacturers (derived from the SSMI), has been taken to represent the gross trade margin, including freight and transportation charges, packing, etc. The above factory products account for roughly 50 p.c. of total value of output of manufacturing as given by the SSMI for 1949. For all the other manufactured products, which have not been covered individually earlier,

the gross margins for trade and transportation have been taken at the level indicated by the weighted average of gross trade margins for products for which trade margins have been derived directly. In services, no trade margins have been allowed.

(xiv) Trade margins on imported foodgrains have been derived from the *Report of the Foodgrains Investigation Committee*. Since all imports of foodgrains are now on government account, greater validity attaches to these trade margins than margins used for trade in domestic output of grains. Figures for import of grains, pulse and flour into India in 1948-49 given in the *Accounts relating to the Sea-Borne Trade and Navigation in India* have been used for our estimates.

(xv) For a number of other imports, available data yield trade margins varying from 10 p.c. to 40 p.c. These data are, however, inadequate and have very limited coverage. Hence for all imports, an over-all gross trade and transport margin has been adopted arbitrarily.

(xvi) For small enterprises, gross and net margins on handloom textile products are available for a large number of centres from the *Report of the Fact Finding Committee (Handloom and Mills) (1947)*. For all textiles other than cotton, trade margins have been adopted from data given by S. Y. Krishnaswamy's *Rural Problems in Madras—Monograph*. For metals and minerals a margin of 15 p.c. has been adopted on the basis of data given by Krishnaswamy. For wood, sand and glass products an attempt has been made to work out trade margin on each type of product separately. For services of sawyers, carpenters, excavators, brick-layer, builders, house decorators, etc., no trade margin has been considered necessary. For some products, like pottery, there takes place a large amount of direct sale by producer to consumer; for such products, therefore, two-thirds of the entire output have been assumed arbitrarily as sold direct to consumers, and a trade margin of 20 p.c. has been taken for the balance. For hides and skins, no trade margins have been allowed. For sale of shoes, etc., a margin of 12½ p.c. has been adopted for 50 p.c. of output of shoes, etc., on the basis of the *Rural Economic Enquiries in the Hyderabad State 1949-51*. For chemicals, the trade margin is based on Krishnaswamy's book. Data on trade margins for cigar, beedi, and oil pressing have been derived from Krishnaswamy's book and the Hyderabad rural enquiry, and a trade margin of 15 p.c. has been fixed. Of food products, 15 p.c. is assumed to be sold directly by producer to consumer, and no trade margin is allowed for the same. A margin of 20 p.c. has been taken for the balance of the food products. For miscellaneous products an average margin of 20 p.c. has been adopted arbitrarily, on the basis of available data on trade margins for miscellaneous products.

(xvii) Passenger earnings of motor transport have been estimated by two independent methods. Total petrol consumption in the Indian

Union by taxi cabs, buses and stage carriers (passenger traffic only) has been estimated from the percentage petrol consumption by different types of vehicles in the State of Bombay during 1947-48. Total receipts have been estimated (at Rs. 28 crores in 1948-49) on the basis of average mileage per gallon of petrol and average fare per mile. An alternative estimate is based on a ratio of workers employed in bus transport to total urban population derived from the number of workers engaged in bus transport in a number of States\*. With an annual average income of Rs. 1,000 per worker, income of employees in bus transport alone is estimated at Rs. 22 crores. Corresponding estimate based on the first method is Rs. 24 crores (Rs. 28 crores less all costs except repairs and depreciation at 15 p.c.†). The first method has been accepted for the final estimate. No deduction for repairs and depreciation has been made here, as an over-all deduction for all vehicles has been made in the process of netting.

(xviii) Incomes of persons engaged in hotels, cafes, etc.; and incomes of publishers, and book-sellers, brokers, commission agents, dealers in real estate and railway porters and coolies have been taken from the estimates worked out by income method.

(xix) For repairs and depreciation of urban bullock-carts, the estimate of number of carts has been revised on the basis of the 1945 and 1951 LC. The average price of carts, as available from the NSS (Poona Report), has been and the rate of repairs and depreciation is placed at 20 p.c. of the value on the basis of all available information. For taxi cabs, 20 p.c. of earnings and for river boats, 10 p.c. of passenger earnings for passenger boats plus 30 p.c. of passenger earnings for boats carrying freight, have been deducted as repairs and depreciation of taxi cabs and boats respectively. As the total income originating in railways has been shown under a separate sector, the entire railway freight earnings have been deducted in the sector under consideration. The estimate of feed of animals deducted has been taken from the livestock sector. As no retail trade is involved in the case of commodities exported, a deduction has been made to allow for the over-estimation on this count. The estimated wastage on the marketable surplus of agricultural commodities has been treated as a trading cost and deducted here.

#### K. Income from professions and liberal arts and domestic service

2.171. The estimation of total income of persons engaged in professions and liberal arts is fraught with many difficulties. There are no reliable or regular statistics dealing with either total employment or average earnings in these occupations. Census occupation figures constitute the only data that can be used for estimation purposes with any degree of generality.

\* *Labour Investigation Committee Report on Labour conditions in Tram and Bus services (1945)*

† This is composed as follows: petrol 13.6 p.c. and other costs 1.4 p.c.

2.172. Apart from census statistics there is no regular information bearing on the employment situation in these occupations. Some attempts have recently been made by the Ministry of Natural Resources and Scientific Research for compiling a national register of workers in medicine engineering, etc. But as yet the coverage is too inadequate. Besides these, there are some directories prepared either for individual cities or States, of persons in a particular profession, but these again furnish only a partial picture. In the case of persons employed in education, the Central and State Governments collect data regarding employment both in cities and villages and in private and government institutions. The statistical position regarding education can thus be regarded as less unsatisfactory than in the case of other professions.

2.173. Details regarding the number of persons engaged in this sector are available in the census by the major groups, viz., medical and other health services, educational services, recreation services, business services, arts, letters and journalism, legal services, religious and charitable services, sanitary services, barbers and hair dressers, and laundries and washermen.

2.174. The position with regard to the material on average earnings in these occupations is quite unsatisfactory. The available information is diverse and regional and is more in the nature of isolated case studies rather than carefully planned statistical surveys. Scattered earnings data of different orders of reliability, are available in a number of publications. The following publications may be cited as a sample of the sources used: (i) V. K. R. V. Rao: *National Income of British India for 1931-32*; (ii) R. C. Desai: *Consumer Expenditure in India; 1931-32 to 1940-41*, Journal of the Royal Statistical Society, Vol. CXI, Part IV; (iii) Various issues of the ILG; (iv) *Farm Accounts in the East Punjab (1949)*, PBEI; (v) *Social and Economic Survey of Refugee Camps in East Punjab-(1949)*, PBEI; (vi) Bihar Minimum Wage Legislation, Minimum Wage Act (notification of March 14, 1950); (vii) *Report of the Health Survey and Development Committee (1946)*; (viii) D. R. Gadgil; *Poona; A Socio-economic Survey*; (ix) P. J. Thomas: *Some South Indian Villages—A resurvey*; (x) *Labour Investigation Committee Report on an Enquiry into Conditions of Labour in Principal Municipalities in India*; etc.

2.175. It is to be borne in mind that while the earnings data relate to a large number of activities like those of professors, doctors, lawyers, teachers, hakims, vaid, petty physicians, medical officers, house surgeons, matrons, public health nurses and sisters, ordinary nurses, compounders, midwives, sanitary inspectors, trained dais, dentists, dental surgeons, civil and mechanical engineers, chemists, astrologers, jugglers, washermen, barbers, scavengers, etc., yet they cannot be matched with the census categories by which the employment figures are available. That, however, would not be a serious defect if there were not wide divergence

375 M. of Fin.



between the earnings data, and also, if one were, at all sure of the generality of the figures contained in these studies.

2.176. Income-tax statistics published by the CBR give the number of assesseees and total taxable income for various professions. Quite apart from the problems of tax-evasion, the difficulty with income-tax data lies in the fact that they cover only those persons liable to tax; and even of these, only those that are carrying on these professions as a purely independent business of their own; persons who follow these professions as employees of somebody are left out of account in this context and are enumerated under the class 'salaries' and there is no means of ascertaining what percentage of taxed salary earners falls in the category of professions.

2.177. The following table presents the main features relating to the calculation of income originating in the sectors "professions and liberal arts and domestic service.

TABLE 26 : INCOME FROM PROFESSIONS AND LIBERAL ARTS AND DOMESTIC SERVICE

	1950-51			1949-50			1948-49		
	number of persons engaged (thousands)	per head earning (Rs.)	total income (Rs. crores)	number of persons engaged (thousand)	per head earning (Rs.)	total income (Rs. crores)	number of persons engaged (thousand)	per head earning (Rs.)	total income (Rs. crores)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
professions and liberal arts									
1. medical and other health services . . . . .	757	1,528	116	732	1,530	112	706	1,500	106
2. educational services . . . . .	1,036	662	69	984	663	65	986	650	64
3. letters, arts and science etc. . . . .	722	917	66	701	918	64	676	900	61
4. legal services . . . . .	253	1,274	32	242	1,275	31	235	1,250	29
5. religious, charitable services . . . . .	763	611	47	737	612	45	712	600	43
6. sanitary services—scavengers . . . . .	669	560	37	645	561	36	624	550	34
7. barbers and hairdressers . . . . .	1,057	560	59	1,021	561	57	986	550	54
8. laundries—washermen . . . . .	1,168	357	42	1,129	357	40	1,091	350	38
TOTAL . . . . .	6,425	(728)	468	6,191	(729)	450	6,016	(714)	429
domestic service									
1. private motor drivers and cleaners . . . . .	163	968	16	157	969	15	152	950	14
2. cooks, gardeners and other domestic servants . . . . .	2,784	408	114	2,690	408	110	2,599	400	104
TOTAL . . . . .	2,947	(439)	130	2,847	(439)	125	2,751	(430)	118

Final Report : February 1954

2.178. Some salient features of the method of calculation in the professions and liberal arts are detailed below:

(i) Total number of earnings observations, on which group averages rest, has increased to 157. Coverage in respect of States has also increased, and apart from most class A and B States, figures for some of class C States are also available.

(ii) For converting daily earnings into annual, the multiplier used is 300. Figures relating to previous years are inflated and adjusted for 1948-49. Similarly, data relating to post 1948-49 years are also adjusted for years under review by using suitable indices.

(iii) The rate of increase in earnings for adjustment purposes remains the same as in the case of factory workers. For post 1948-49 earnings estimates, the rate used is one-fourth the rate of change in factory earnings. For the group, educational services, income estimates for 1948-49 are derived from data supplied by the Ministry of Education.

(iv) In religion and law, a straight average has been used for all relevant adjusted earnings observations. In medicine, all observations above Rs. 5,000 have been left out. Straight averages are calculated for each of the 1951 census sub-orders, 8·10, 8·11, 8·12, 8·13, 8·14, 8·15, 8·16 and 8·17 for which sufficient data are available. For obtaining a weighted average for medicine, weights used are the respective number in each of these sub-orders. Averages thus derived for law and medicine work out at Rs. 1,267 (rounded off to Rs. 1,250) and Rs. 1,527 (rounded off to Rs. 1,500) respectively. For letters, arts and science, recreation services and business services weighted averages have been calculated. Weights used are the respective number of persons engaged and the average thus obtained works out very nearly at Rs. 900.

(v) To derive average earnings of teachers, data supplied by the Ministry of Education are used exclusively. The average earning of teachers works out at Rs. 650 for 1948-49.

(vi) For the earnings of scavengers, a straight average of 85 observations relating to scavengers and other lowest paid conservancy staff is taken. The coverage in respect of States has considerably increased for this sub-order, as well as for sub-orders corresponding to washermen and barbers. Observed average earning of washermen works out at Rs. 479. But making a 25 p.c. deduction on account of costs incurred, net income is estimated at Rs. 359 (rounded off to Rs. 350) for estimation purposes.

(vii) For 1950-51 and 1949-50, average earnings for 1948-49 in all professions have been adjusted in relation to the rise in earnings of factory workers.

2.179. Some important features of the method of estimation in the domestic service sector are presented below.

(i) The coverage of data has increased in this sector also. Earnings observations now number 94, covering most of class A and B States.

(ii) For converting daily earnings into annuals, the multiplier used is again 300.

(iii) Data relating to pre 1948-49 years are adjusted on the basis of rates of increase in factory earnings and for post 1948-49 years at one-fourth the above rate. Average earning of private car drivers, based on 27 observations, works out at Rs. 959 (rounded off to Rs. 950) per annum; for other domestic servants, average based on 49 observations, mostly relating to urban areas, works out at Rs. 461 per annum. According to V.K.R.V. Rao\* the earnings in rural areas are at least 30 p.c. lower than in urban areas and as such the average earnings of a domestic servant in rural areas would be about Rs. 322 per year. Also remembering that the ratio of rural to urban domestic servants, according to the 1951 census is 56:87, the overall average income per domestic servant works out at Rs. 407 (rounded off to Rs. 400) per annum. For years 1950-51 and 1949-50, the income figures have been inflated by taking one-fourth the rate of increase in factory earnings.

#### *L. Income originating in public authorities sector*

2.180. Apart from the estimation of income generated in the public sector, the main object of the analysis of the accounts of public authorities is to portray in some detail the relationship between the private and public sectors of the economy. The information sought in respect of the public sector may, for instance, throw light on the following items:

(a) the net contribution of Government administrative and commercial activities to the national income of the country;

(b) volume of the current effective demand for goods and services that the activities of the public authorities generate;

(c) the draft that the public authorities make on the income generated in the private sector by way of direct and indirect taxes, various other receipts, miscellaneous fees, etc;

(d) the income that accrues to the public authorities by way of income from property and other entrepreneurial returns like surplus accruing on government owned enterprises;

---

\*The National Income of British India for 1931-32

(e) the contribution that the public authorities make to the income generated in the private sector by way of transfers, gifts, grants, scholarships, subsidies, etc;

(f) the amount and financing of capital formation involved in the activities of public authorities;

(g) the amount that the public authorities withdraw from the private sector by way of borrowings and the various receipts and payments for interest and debt redemption that are involved in public lending and borrowing activities, etc.

2.181. The nature and form of the available statistical material on this sector may be discussed in the context of the units or the accounting entities that are considered to fall within the field of the public authorities sector. The following entities may thus be deemed as falling within this sector:

(i) the Union Government, together with all the commercial enterprises owned and directed by it;

(ii) the Governments of class A and class B States together with all the commercial enterprises owned and directed by these States;

(iii) the class C States and centrally administered areas, accounts of which are incorporated in the Union budget accounts and/or in the State Government accounts;

(iv) municipalities, district boards, port trusts, city and cantonment development boards and improvement trusts, town and notified area committees, union boards, village panchayats, and all other local bodies not covered by the above;

(v) independent (statutory) public corporations like the Damodar Valley Corporation; and lastly,

(vi) funds accounts which are administered by the government or by *ad hoc* public bodies, for which over-all totals of receipts and out-goings are entered in the borrowings accounts of Government budgets.

2.182. Of the above, accounts of funds, etc., are usually taken out of the public authorities sector, and treated independently as another sector in a scheme of national accounts. The difficulty in such a procedure is that when public corporations are created by law and administer separate funds (e.g., the Damodar Valley Corporation), they still remain of the nature of public authorities. There appears to be no valid reason why the Damodar Valley Corporation should not be treated as part of the public authorities sector\*.

2.183. The accounts of the public authorities, that are available, are kept on a very simple basis of cash accounting, which involves the recording of all actual receipts and disbursements of cash, as and when and

\* Some difficulty also arises in connection with the treatment of private funds administered under Government regulation but not belonging to the Government, such as, Devaswams charities, etc.

where they occur. However, there is some distinction drawn between the items of revenue, capital, debt and remittances, and all transactions are classified into these heads. The revenue account broadly contains all items supposed to relate to current revenue transactions. Thus, all receipts from direct and indirect taxation, fees and miscellaneous receipts, together with all expenditure supposed to have been met out of current revenue are incorporated in the revenue account; the capital account records all receipts and expenditure of a capital nature, usually met out of borrowed funds, appropriations of interest on funds, etc. For purposes of presentation of financial statements and accounts, therefore, transactions relating to debt head items are also included in the capital budget, though capital receipts and borrowings are maintained and shown separately. Debt and remittances are designed to record all transactions involving public borrowings and remittances between the RBI, the Union Government, various State Governments, and England.

2.184. The distinction drawn by the public authorities between revenue and capital transactions does not always tally with the distinction desirable from the point of view of national income accounting. The present classification is influenced mainly by the nature of the sources of finance, and therefore, if some item of capital nature is financed out of current proceeds of taxation it is recorded under the revenue account. However, in the case of the major government commercial undertakings such as railways, irrigation works, electricity schemes, etc., commercial accounting principle is followed.

2.185. In the analysis of the public authorities sector, the entire field of governmental activity has to be divided into administrative and commercial activities. It is somewhat difficult to draw a completely clearcut distinction between these two types of activities. Thus, for example, in the case of what may be regarded as a commercial activity such as forest exploitation, it is not certain that strictly commercial principles are followed either on the income or on the expenditure side of this activity. On the other hand, in the case of an activity such as education or medical relief which would normally be regarded as administrative, Government will derive a revenue by way of fees or other charges some of which actually discriminate between different classes of persons enjoying the service on the basis of their income. Nevertheless, it is possible to draw this distinction between commercial and administrative activities sufficiently valid for all practical purposes. We have followed the procedure of treating activities such as education, health services, etc., as administrative and regard the income derived therefrom as indirect taxes. The list below pertains to activities which have been treated as commercial.

- (i) railways
- (ii) posts and telegraphs
- (iii) forests
- (iv) irrigation

- (v) electricity schemes
- (vi) road transport schemes
- (vii) industrial enterprises
- (viii) opium, salt, etc.

2.186. Quite apart from the above classificatory problem, at present all government transactions are classified on a dual principle, either on the basis of the line of activity, like education, public health, etc., or on the basis of important government departments like Land Revenue, Sales Tax, etc. Thus there is a combination of functional and departmental classification. A fair amount of detailed information is available for all receipts and expenditure, but the lack of a clearcut functional classification of these necessitates a re-classification of the budget data for purposes of national income accounting. Thus, the various revenue items have to be re-classified or re-grouped among direct taxes (on income and capital), indirect taxes, fees and miscellaneous receipts, inter-governmental transfers, rent and other income from property, interest receipts, and surplus or profit accruing from commercial activities. Similarly, expenditure—which is generally given for each head with break-downs of pay of officers, pay of establishment, allowances and honoraria, contingencies, grants-in-aid and contributions, original works and repairs, etc., and charges in England—has to be grouped, separately for administrative departments and for government commercial activities, into wages and salaries, purchase of commodities and services, capital expenditure (both wages and salaries and purchase of commodities and services), subsidies, transfers (to public authorities, non-government institutions and individuals), interest payments, etc. For commercial activities, the above categories require some modification, and profit or surplus also needs reckoning. Adequate details relating to all these break-downs are not always available and allocation of various expenditure items into some or all of the break-downs outlined above becomes necessary.

2.187. Some special difficulties arise in the case of expenditure on the civil works and on various schemes of State trading in foodgrains, etc. Civil works expenditure is available by categories not suitable for income accounting. As a result of this, arbitrary allocation of certain heads becomes necessary. Secondly, all schemes of grain trading are usually relegated to the borrowings account, by the creation of funds for the purpose, only the over-all profit or loss being shown in the budget as receipts of the agriculture department or as subsidy granted by the same. From the national income point of view, this is unsatisfactory. In the face of this difficulty, our present procedure has been to relegate the pure purchasing and selling activity in the State trading to the borrowing account. Wages and salaries in State trading are, therefore, accounted for under administration, as are the subsidies to cultivators, losses on imported foodgrains, etc.

2.188. We now examine the availability of the budgets of different types of public authorities and notice their particular limitations. Our accounts of Central Government for 1948-49, 1949-50 and 1950-51 are based on figures of 'actuals' as given in the Budgets and the Demands for Grants for 1950-51, 1951-52 and 1952-53 respectively. The Budget and the Demands figures sometimes show a discrepancy, necessitating the adjustment of the Demands figures to the Budget total, on the basis of the ratios obtained from the Demands. The Central Budget for 1950-51 includes all class C States except Coorg, but the Central Government accounts for 1948-49 and 1949-50 do not cover the class C States of Vindhya Pradesh, Jaopar, Himachal Pradesh, Manipur, Tripura, Bilaspur and Coorg.

2.189. For statistics relating to railways, and posts and telegraphs, detailed accounts are available, apart from those given in the budgets of the Central and State Governments. For railways, apart from the Railway Budget and financial accounts relating to railways, the annual reports of the Railway Board provide a wealth of statistics relevant for national income purposes. The Railway Board report covers not only the state-owned railways but also the private railways. The publication gives various data bearing on employment in railways, income generated in this sector, extent of capital formation, and railway receipts and expenditure. This enables a break-down of railway accounts for different purposes relating to national accounts. In respect of posts and telegraphs, the main sources of information are the financial accounts, budget documents, and the annual reports of the Director General of Posts and Telegraphs. Though containing a lot of useful statistics, these publications do not contain data on earnings of workers so that an independent check on the accuracy of the estimates derived from budget accounts, is not possible. Further, both in respect of railways and posts and telegraphs, employment figures give only statistics of persons employed directly, and fail to include workers employed by contractors.

2.190. In the First Report, our estimates related to railways covered by the Railway Budget. Accounts of railways not covered in the First Report have now been set up on the basis of data on income and working expenses of these railways available from the Railway Board report\*.

---

\* The following statement illustrates the coverage of the Railway Budget :

(i) *Completely covered*

1. Assam Railway
2. Bengal Nagpur Railway
3. Bombay, Baroda and Central India Railway
4. East India Railway
5. Eastern Punjab Railway
6. Great Indian Peninsula Railway
7. Madras and Southern Maharatta Railway
8. Oudh Tirhut Railway
9. South Indian Railway.

(ii) *Supposedly completely covered*

1. Scindia State Railway
2. Mysore State Railway
3. Rajasthan State Railway
4. Gaekwad's Baroda State Railway.



The allocation of working expenses into wages and salaries and purchase of commodities and services has been made on the basis of the ratio obtained for all railways for which budget data are available. In the First Report, estimated income from private railways had been entered under 'other commerce and transport'. These private railways have now been included in the railway sector. In the accounts of public authorities, however, accounts of railways have been taken net of figures for private railways.

2.191. For class A States, budget accounts are available for the years under consideration and the figures of 'actuals' can be used for estimation. For class B States, the position is somewhat unsatisfactory as these have been created out of the former princely states. For 1948-49, figures of 'actuals' are available only for four class B States, namely, Mysore, Hyderabad, Saurashtra and Travancore-Cochin. For Rajasthan and Madhya Bharat, budget estimates for 1949-50 have to be utilised in the absence of the relevant accounts. Further, the Uttar Pradesh and Bombay accounts do not incorporate the accounts of the merged states of Rampur and Tehri-Garhwal and of Baroda respectively. For 1949-50, 'actuals' are

(iii) *Imperfectly covered*

1. Nizam's State Railway

(iv) *Not covered*

1. Saurashtra Railway
2. Barsi Light Railway
3. Shahdara (Delhi)-Saharanpur Light Railway
4. Ahmedpur-Katwa Railway
5. Arrah-Sasaram Light Railway
6. Bankura Damodar River Railway
7. Baraset-Basirhat Light Railway
8. Bengal Provincial Railway
9. Bukhtiarpur-Bihar Light Railway
10. Burdwan Katwa Railway
11. Cutch State Railway
12. Dehri-Rohtas Light Railway
13. Futwa-Islampur Railway
14. Howrah-Amta Light Railway
15. Howrah Sheakhala Light Railway
16. Jagadhari Light Railway
17. Kalighat-Falta Railway
18. Tezpur-Balipara Light Railway

The Railway Budget (for 1948-49) covers all railways under (i). Railways under (ii) would get covered by class B States budgets. In respect of (iii), the budget for Hyderabad gives only surplus accruing from the Nizam State Railway. Railways under (iv) are completely left out in the Railway Budget.

available for only three class B States, namely, Madhya Bharat, Jammu and Kashmir, and Saurashtra. For Mysore and Travancore-Cochin, accounts are available for 9 and 7½ months respectively. For Rajasthan, budget estimates for 6 months only are available, while for PEPSU, revised estimates are available. The problem of Hyderabad is a little different as the accounts here are available for 'fasli' years (corresponding to the period 1st October—30th September). It is satisfactory, however, to note that for 1950-51, 'actuals' were available for all class B States.

2.192. The above analysis reveals that even in respect of Government budgets, data are by no means complete. However, the Central and class A States roughly cover three-fourths of the entire public authorities sector from the standpoint of contribution to national income, and consequently the errors in respect of the class B States cannot exert considerable influence on the over-all magnitudes.

2.193. In respect of municipalities and other local authorities, the CSO collects and compiles data for incorporation in the annual SA. Information is available on income and expenditure, with details of income as derived from different municipal rates and taxes, realisation under special acts, other sources, and extraordinary debt, and expenditure on collection charges, general administration, public health and conservancy, public works and extraordinary debt. Although these data are not adequate for detailed national accounting, they do enable construction of tables giving current and capital transactions of municipalities to fit in with the accounts of other public authorities. In respect of district, union and other local boards the position is unsatisfactory in so far as statistics relating to their income and expenditure are highly incomplete.

2.194. Available figures of income and expenditure of municipalities, district and local boards for 1948-49 cover the whole of the Indian Union except Assam, Bihar, Madhya Pradesh, Uttar Pradesh and Hyderabad. For Madhya Bharat data for municipalities are available but no data are available for district and local boards. Figures for 1947-48 have been used for municipalities, district and local boards in Assam, Bihar, Madhya Pradesh and Uttar Pradesh. The available figures have been adjusted to cover Hyderabad in respect of municipalities and to cover Hyderabad and Madhya Bharat in respect of district and local boards.

2.195. Accounts have been received, in reply to a circular letter, from 14 improvement trusts. These accounts contain varying degrees of detail. Similarly, accounts of the port trusts of Bombay and Madras and the Port Commissioners of Calcutta have been directly obtained, and yield data useful for estimation of national income. Information regarding improvement trusts and port trusts (as directly received in the NIU)

are fairly adequate, and contain data with greater break-downs and variety, than the tabulated data on municipalities and district boards available with the CSO. For village authorities, no information is available in the CSO. Figures of income and expenditure of such authorities for 1946-47 in class A States have been taken from the *Report of the Local Finance Enquiry Committee* (1951) and have been utilised for the years of estimation.

2.196. Finally, attention may be drawn to a few changes in the analysis of government budget accounts which have been made in this report as compared with what has been done in the First Report. Some technical ratios adopted in the First Report, for classification of total expenditure into component groups have now been modified. Out of the total expenditure on construction by Government (administration), wages and salaries are now taken at 33·3 p.c. on the advice of the Chief Engineer, CPWD; for all other works, wages and salaries have been taken to be 50 p.c. of total expenditure arbitrarily. Similarly, 33·3 p.c. of capital expenditure of Government enterprises has been taken to constitute wages and salaries; for maintenance and repairs expenditure out of revenue account, 50 p.c. has been taken as wages and salaries. Secondly, in the First Report, grants to educational and scientific institutions had been taken as administrative expenditure on (teachers') wages and salaries, and as purchase of commodities in educational and other institutions. We have now preferred to treat these expenditures as transfer payments as they more properly constitute income generated in the private sector.

2.197. The contributions by the different branches of the public authorities sector to the national income are given in table 37 of this chapter in considerable detail, and hence are not given here.

#### M. *Income from house property*

2.198. Contribution to national income in this sector has been worked out separately for urban and rural house property. For urban areas, estimation has been made both on the basis of average rental per house and on the basis of municipal collection of house tax and an assumed relation between taxes paid and the gross rental. Municipal statistics used for this purpose suffer from several defects. The tax statistics give collections of taxes on both houses and land; taxes on land other than sites should not properly go into the component relevant for imputation of income from house property. Another difficulty is the likely under-estimation due to under-assessment of the value of property and poor collection of tax—both understood to be general features of the municipal house tax.

2.199. The tax rate on house property differs widely from municipality to municipality. Recent information on municipal tax rates for a

number of municipalities is available in the *Report of the Local Finance Enquiry Committee*. Data have also been collected by the NIU on this point through a circular addressed directly to 534 municipalities; to which replies were received, from only 154 municipalities.

2.200. Some data on rural housing are available from the preliminary results of the NSS. These give all-India estimates of the average value of rural houses, age distribution of rural houses, as also the annual repair expenditure per household. These, together with census data on the number of rural houses have been utilised for imputation of the income from rural house property in the absence of any data directly bearing on rental income from rural houses. It must be added that we are not altogether happy about the validity of the NSS data used for this purpose.

2.201. The following table presents the main features of the estimation of income generated in the sector.

TABLE 27 : INCOME FROM HOUSE PROPERTY

	1950-51	1949-50	1948-49
(1)	(2)	(3)	(4)
<i>rural</i>			
1. number of houses (lakhs)	541·0	541·6	542·3
2. value of a house (Rs.)	877·0	855·0	816·0
3. undepreciated value of rural houses (Rs. crores)	4744·6	4630·7	4425·2
4. depreciation (Rs. crores)	2023·5	1974·9	1887·1
5. current value of houses (Rs. crores)	2721·1	2655·8	2538·1
6. gross rental (Rs. crores)	272·1	265·6	253·8
7. cost of repairs and maintenance per household (Rs.)	13·0	12·7	12·1
8. number of household (lakhs)	589·4	590·1	590·7
9. total cost of repairs and maintenance (Rs. crores)	76·6	74·9	71·5
10. net contribution to national income (Rs. crores)	195·5	190·7	182·3
<i>urban</i>			
1. number of houses (lakhs)	101·6	99·7	97·8
2. annual average rental income per house (Rs.)	245·7	245·7	245·7
3. total gross rental (Rs. crores)	249·6	245·0	240·3
4. less cost of repairs and maintenance (Rs. crores)	—26·8	—26·3	—25·8
5. less municipal taxes paid (Rs. crores)	—10·0	—10·0	—8·8
6. net contribution to national income (Rs. crores)	212·8	208·7	205·7
net contribution of the sector (Rs. crores)	408·3	399·4	388·0

2.202. The method of obtaining the more important entries in the above table is detailed below.

(i) Number of occupied rural houses has been estimated by linear interpolation between the census figures of 1941 and 1951. It may be noted that the census data show a fall in the number of rural houses from 1941 to 1951.

(ii) The total number of rural houses has been split up according to the date of construction on the basis of a frequency distribution of houses according to age derived from the NSS. Only 3.4 p.c. of total number of houses are assumed to be built within one year on the basis of this information.

(iii) The rate of change in the number of rural houses has been worked out on the basis of data for 1901—1951 for undivided India and then the figure for the Indian Union is worked out on the basis of a ratio relating to 1941 data.

(iv) Average current value of a rural house in 1950-51 is obtained from the NSS. The wholesale price indices of food articles have been used to adjust this for 1948-49 and 1949-50. Undepreciated value of rural houses in all age groups is obtained by evaluating at this current average price. Current value of the rural houses built earlier than one year is then obtained by depreciating the value of the houses in each age-class by making use of the average age and annual depreciation rate of 2.5 p.c. No depreciation is deducted for houses less than one year old.

(v) As income from rural property is almost entirely an imputed item, rental value of rural houses is estimated on the basis of rural interest rates. Two alternative interest rates have been considered for this purpose; one, a straight mean of prescribed maximum rates for secured loans (8½ p.c.), and the other, a similar average for both secured and unsecured loans (10 p.c.). The averages have been worked out from the rates allowed by all currently operative legislations on the subject. The latter estimate has been used to get the gross rental of rural houses.

(vi) The net rental is obtained from the gross by deducting the cost of repairs and maintenance. The NSS gives the cost of repairs and maintenance per household as Rs. 12.65 in 1949-50. This has been adjusted by wholesale price index of food articles to get the relevant figures for 1948-49 and 1950-51. The numbers of rural households in the three years are obtained by linear interpolation between 1941 and 1951. The 1941 census does not, however, give the number of households, and the number of rural houses in 1941 has been adjusted by the ratio of rural houses and households in 1951 to get

the number of rural households in 1941. The product of cost per household and the total number of households gives the total cost of repairs and maintenance of rural houses.

(vii) Income from urban house property is estimated by two different methods. One of these is a repetition of the procedure adopted in the First Report, but with enhanced coverage of data. Figures of municipal taxes on houses and lands are given in the SA (1950) for the year 1948-49. This in conjunction with the tax/rent percentage of 7.4 worked out on the basis of returns from 91 municipalities collected by the NIU gives the rental income for the area covered by the reporting municipalities. The rental value of house property in the urban municipal area thus calculated has been used for estimating the rental value of house property of the urban area as a whole. The net income is derived from this by deduction of the actual municipal taxes collected.

(viii) The alternative estimate of gross rental is worked out from the number of houses in 1950-51, 1949-50 and 1948-49 obtained by linear interpolation between 1951 and 1941 census figures and the average annual rental income per house based on returns from 91 municipalities. For derivation of the net income, a deduction of 10.75 p.c. of gross rental for repairs and maintenance has been allowed on the basis of returns from 28 municipalities. Further, the total collection of taxes on houses has been treated as an indirect tax and has been deducted.

(ix) It may be added that the estimates based on the two methods are fairly close. The second method has, however, been adopted for this ensures a similarity of treatment in respect of the urban and rural areas.

#### N. Balance of payments and net income from abroad

2.203. Two different sets of data relating to this sector are available: (i) statistics of merchandise exports and imports (based on customs data), as published by the DGCIS in the annual *Accounts relating to the Seaborne Trade and Navigation in India* and in similar accounts relating to overland trade and (ii) statistics of India's balance of payments, as compiled by the RBI, on the basis of statements of the Exchange Control Department (ECD) relating to foreign transactions. These latter statistics are periodically published with a fair amount of detail, in the *Reserve Bank of India Bulletin*, and summarised in the *Report on Currency and Finance*. Recently a pamphlet, *India's Balance of Payments, 1948-51* has been published by the RBI bringing together data for the period January 1948 to December 1951. This also gives Indo-Pakistan balance of payments for the period July 1948 to December 1951. We have used this

publication for our estimates; and these now include the Indo-Pakistan balance of payments which was missed in the First Report.

2.204. The two sets of figures of trade in merchandise, as derived from customs, and the ECD data, vary considerably, because of difference in timing, coverage, and basis of valuation. The customs data relate to the physical movement of commodities; the ECD documents relate to actual 'payments' rather than to 'accruals'. However, detailed analysis carried out by the RBI shows that the time lag between the two sets of figures is less than a month, and, therefore, should not account for any but minor differences between the two sets of figures. The RBI has found that the major cause of the discrepancy between the two sets of figures lies in the different basis of valuation adopted.

2.205. This divergence between the two sets of figures makes it somewhat difficult to use the customs data, though the physical quantities exported and imported represent the 'accruals' of payments relevant for estimation of current income perhaps better than the estimates on this account based on the RBI material. Thus, we have been obliged to rely entirely on the RBI material because our main interest centres round the balance of payments rather than the balance of trade.

2.206. Some limitations attendant on the use of the RBI analysis of balance of payments data may be indicated here. Information regarding items like donations and remittances is incomplete, while information on investment income is subject to considerable error as foreign incomes earned and reinvested in India would not enter into the balance of payments at all. Further there are large payments designated as 'unclassified' to add to which there is also a large category of 'errors and omissions' in the current account. Moreover, no clear indication is available regarding the net outflow of factor incomes from the country with the result that this category is represented in our estimates only by the net outflow of investment income for which figures are available with the RBI.

2.207. The recent report, *Census of India's Foreign Liabilities and Assets* may provide a better basis for the estimation of accruals of investment income in India. But with the existing statistics, it is not possible to adjust the balance of payments figures on the basis of data given in this publication, because (i) though the census gives the foreign holdings of Indian industrial and other stock, nothing is known about the current earnings or dividends on these scrips, and (ii) the information on the holdings of assets abroad by Indian nationals is incomplete.

2.208. Tables 38 and 39 in the next section give details about India's international transactions.

## II. AGGREGATION OF SECTOR ESTIMATES: NATIONAL TABLES

2.209. The various sector estimates dealt with earlier are aggregated here in table 28 which depicts the contribution made to national income by different enterprise sectors. The subsequent tables of the section highlight several aspects of the relation between a number of the aggregative estimates.

2.210. The estimates of national income for 1950-51 (together with comparable estimates for 1949-50 and 1948-49 at current prices) have been presented with break-downs similar to the ones given in our First Report. To the extent that the tables are based on data for only one year, the estimates of the three years are not objectively independent, and this should be borne in mind when making use of these figures for a study of trends in the economy. It may be added that the proportion of total income based on such data is about 30 p.c.

2.211. We may also indicate here, what according to us is the error margin involved in the estimates of national aggregates presented in the tables. In the earlier part of this chapter we have tried to indicate the different orders of reliability of the various sector estimates in qualitative terms. Such errors would partly cumulate and partly cancel on aggregation, and we can conceive of an error margin attached to the aggregate domestic product. The nature of data used for national income estimation precludes any possibility of estimating this error in a statistically valid sense. However, as the aggregate is certainly subject to an error margin, we think that it is only proper to affix a notional magnitude for the purpose. Details regarding estimation of the magnitude have been relegated to appendix 2 of this report. Suffice it to mention here that this margin works out at about 10 p.c. of the estimate of domestic product. However, for certain reasons indicated in the appendix referred to, the margin may possibly be somewhat higher. Thus, any conclusion based on the magnitude of the aggregate domestic product, or of some other national aggregate is subject to a margin of uncertainty approximately given by this error margin. Conclusions based on sector estimates and aggregates for a part of the nation are generally subject to a higher order of uncertainty. This fact should be borne in mind while drawing conclusions from our figures.

2.212. Apart from the modifications in the estimational procedure, discussed in the previous sections, two conceptual changes adopted in the present estimates should be stressed here. Land revenue has now been treated as a direct tax on income and not as an indirect tax as earlier. The other conceptual change relates to interest on consumer debt, which had earlier been treated as the (imputed) income of indigenous money-lenders for banking services. Following the widely accepted procedure, we now treat their income from consumer debt interest as transfer  
375 M. of Fin.



income. These incomes have in consequence been omitted from the estimate of national income.

2.213. With these preliminary remarks, we proceed to give below the estimates for 1950-51, 1949-50 and 1948-49 at current prices.

TABLE 28 : NATIONAL INCOME OF THE INDIAN UNION BY INDUSTRIAL ORIGIN

Items	1950-51		1949-50		1948-49	
	net output (Rs. abja*)	p.c.	net output (Rs. abja*)	p.c.	net output (Rs. abja*)	p.c.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>agriculture</i>						
1. agriculture, animal husbandry and ancillary activities . . . . .	47.8	50.2	43.8	48.6	41.6	48.1
2. forestry . . . . .	0.7	0.7	0.7	0.8	0.6	0.7
3. fishery . . . . .	0.4	0.4	0.4	0.4	0.3	0.3
4. total of agriculture . . . . .	48.9	51.3	44.9	49.8	42.5	49.1
<i>mining, manufacturing and hand-trades</i>						
5. mining . . . . .	0.7	0.7	0.6	0.7	0.6	0.7
6. factory establishments . . . . .	5.5	5.8	5.4	6.0	5.5	6.4
7. small enterprises . . . . .	9.1	9.6	9.0	10.0	8.7	10.0
8. total of mining, manufacturing and hand-trades . . . . .	15.3	16.1	15.0	16.7	14.8	17.1
<i>commerce, transport and communication</i>						
9. communications (post telegraph and telephone) . . . . .	0.4	0.4	0.3	0.3	0.3	0.3
10. railways . . . . .	1.8	1.9	1.8	2.0	1.7	2.0
11. organised banking and insurance . . . . .	0.7	0.7	0.6	0.7	0.5	0.6
12. other commerce and transport . . . . .	14.0	14.7	13.9	15.4	13.5	15.6
13. total of commerce, transport and communication . . . . .	16.9	17.7	16.6	18.4	16.0	18.5
<i>other services</i>						
14. professions and liberal arts . . . . .	4.7	4.9	4.5	5.0	4.3	5.0
15. government services (administration) . . . . .	4.3	4.5	4.1	4.6	4.0	4.6
16. domestic service . . . . .	1.3	1.4	1.2	1.3	1.2	1.4
17. house property . . . . .	4.1	4.3	4.0	4.4	3.9	4.5
18. total of other services . . . . .	14.4	15.1	13.8	15.3	13.4	15.5
19. net domestic product at factor cost . . . . .	95.5	100.2	90.3	100.2	86.7	100.2
20. net earned income from abroad . . . . .	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
21. net national output at factor cost = national income . . . . .	95.3	100.0	90.1	100.0	86.5	100.0

\* abja = 100 crores =  $\frac{9}{10}$

† These include processing, marketing and other ancillary activities performed by the cultivator in respect of his own produce.

TABLE 29: NET DOMESTIC PRODUCT OF THE INDIAN UNION BY CHARACTER OF ENTERPRISE

items	1950—51			1949—50			1948—49		
	net output	percentage of	of	net output	percentage of	of	net output	percentage of	of
	(Rs. abja*)	classified product	domestic product.	(Rs. abja*)	classified product	domestic product	(Rs. abja*)	classified product	domestic product
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>small enterprises (largely household)</i>									
1. agriculture (other than plantations, etc.)	47.4	64.8	49.6	43.5	63.7	48.2	41.3	63.2	47.6
2. fishery	0.4	0.6	0.4	0.4	0.6	0.4	0.3	0.5	0.3
3. small enterprises and hand-trades	9.1	12.4	9.5	9.0	13.2	10.0	8.7	13.3	10.0
4. professions and liberal arts	4.7	6.4	4.9	4.5	6.6	5.0	4.3	6.6	5.0
5. domestic service	1.3	1.8	1.4	1.2	1.8	1.3	1.2	1.8	1.4
6. total of small enterprises	62.9	86.0	65.8	58.6	85.8	64.9	55.8	85.5	64.4
<i>large enterprises</i>									
7. agriculture (plantations, etc.)	0.4	0.5	0.4	0.3	0.4	0.3	0.3	0.5	0.3
8. forestry	0.7	1.0	0.7	0.7	1.0	0.8	0.6	0.9	0.7
9. mining	0.7	1.0	0.7	0.6	0.9	0.7	0.6	0.9	0.7
10. factory establishments	5.5	7.5	5.8	5.4	7.9	6.0	5.5	8.4	6.3
11. railways	1.8	2.5	1.9	1.8	2.6	2.0	1.7	2.6	2.0
12. communications	0.4	0.5	0.4	0.3	0.4	0.3	0.3	0.5	0.3
13. organised banking and insurance	0.7	1.0	0.7	0.6	0.9	0.7	0.5	0.8	0.6
14. total of large enterprises	10.2	14.0	10.7	9.7	14.2	10.7	9.5	14.5	11.0
<i>unclassified items.</i>									
15. other commerce and transport	14.0	..	14.7	13.9	..	15.4	13.5	..	15.6
16. government services (administration)	4.3	..	4.5	4.1	..	4.5	4.0	..	4.6
17. house property	4.1	..	4.3	4.0	..	4.4	3.9	..	4.5
18. total of unclassified items	22.4	..	23.5	22.0	..	24.4	21.4	..	24.7
19. net domestic product	95.5	..	100.0	90.3	..	100.0	86.7	..	100.0

\* abja = 100 crores = 10<sup>9</sup>

Note.—Figures may not add up to totals given owing to rounding errors.

TABLE 30: NET OUTPUT PER ENGAGED PERSON IN THE INDIAN UNION

items	1950-51			1949-50			1948-49		
	net output (Rs. abja*)	number of persons engaged (lakhs**)	net output per engaged person (Rs. thousands)	net output (Rs. abja*)	number of persons engaged (lakhs**)	net output per engaged person (Rs. thousands)	net output (Rs. abja*)	number of persons engaged (lakhs**)	net output per engaged person (Rs. thousands)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. agriculture . . . . .	48.9	1036	0.5	44.9	1021	0.4	42.5	1005	0.4
2. mining and factory establishments . . . . .	6.2	37	1.7	6.0	38	1.6	6.1	38	1.6
3. small enterprises . . . . .	9.1	115	0.8	9.0	113	0.8	8.7	112	0.8
4. total of mining, manufacturing and hand-trades . . . . .	15.3	153	1.0	15.0	152	1.0	14.8	151	1.0
5. railways and communications . . . . .	2.2	14	1.6	2.1	14	1.5	2.0	14	1.4
6. banking, insurance and other commerce and transport . . . . .	14.7	97	1.5	14.5	96	1.5	14.0	95	1.5
7. total of commerce, transport and communication . . . . .	16.9	111	1.5	16.6	109	1.5	16.0	109	1.5
8. professions and liberal arts . . . . .	4.7	64	0.7	4.5	62	0.7	4.3	60	0.7
9. government services (administration) . . . . .	4.3	39	1.1	4.1	38	1.1	4.0	36	1.1
10. domestic service . . . . .	1.3	29	0.4	1.2	28	0.4	1.2	28	0.4
11. total of other service . . . . .	10.3	133	0.8	9.8	128	0.8	9.5	124	0.8
12. house property . . . . .	4.1	..	..	4.0	..	..	3.9	..	..
13. net domestic product at factor cost . . . . .	95.5	1432	0.67	90.3	1410	0.64	86.7	1388	0.62

\* abja = 100 crores = 10<sup>8</sup>.

\*\* lakh = 100,000

TABLE 31: SHARE OF GOVERNMENT IN DOMESTIC PRODUCT AND EXPENDITURE IN THE INDIAN UNION

Items	1950-51		1949-50		1948-49	
	(Rs. abja@)	p.c.	(Rs. abja@)	p.c.	(Rs. abja@)	p.c.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Government share in generation of net domestic product</i>						
1. Net output of government enterprises	2.9	3.0	2.7	3.0	2.4	2.8
2. Net output of government administration	4.3	4.6	4.1	4.5	4.0	4.6
3. Net output of the private sector	88.3	92.4	83.5	92.5	80.3	92.6
4. Net domestic product	95.5	100.0	90.3	100.0	86.7	100.0
<i>Government share in national expenditure</i>						
5. Government current expenditure on commodities and services (government administration)	5.6	5.6	5.4	5.7	6.4	7.1
6. Government administrative capital expenditure	1.0	1.0	1.2	1.3	1.0	1.1
7. Government enterprises capital expenditure	1.6	1.6	1.5	1.6	1.1	1.2
8. Net national expenditure at market price	100.3	100.0	94.6	100.0	90.6	100.0
<i>Government draft on private income</i>						
9. Direct taxes	2.3	2.4	2.2	2.4	2.4	2.8
10. Indirect taxes	4.3	4.5	3.9	4.3	3.6	4.1
11. Miscellaneous fees, etc.	1.1	1.1	1.0	1.1	0.9	1.0
12. Private income	95.7	100.0	90.5	100.0	87.0	100.0
<i>Government capital formation and finance</i>						
13. Surplus on current account and maintenance provision	1.9		1.6		0.1	
14. Government borrowing at home	0.5		0.1		2.7	
15. Government borrowing abroad	0.1		0.2		-2.2	
16. Extra-budgetary receipts and adjustment for cash balances	0.2		0.8		1.5	
17. Gross capital formation on government account	2.7		2.7		2.1	

@ abja = 100 and p.c. = 100%

TABLE 32: NATIONAL ECONOMY AND THE REST OF THE WORLD

items	1950—51		1949—50		1948—49	
	(Rs. abja*)	p.c.	(Rs. abja*)	p.c.	(Rs. abja*)	p.c.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>exports and imports in relation to net national product gross of imports.</i>						
1. exports of commodities and services . . . . .	7.6	7.4	6.3	6.5	5.7	6.0
2. imports of commodities and services . . . . .	6.9	6.8	6.7	6.9	8.0	8.5
3. net national product gross of imports of commodities and services . . . . .	102.2	100.0	96.8	100.0	94.5	100.0
<i>receipts from abroad in relation to net domestic product.</i>						
4. net earned income from abroad . . . . .	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
5. net donation from abroad . . . . .	0.1	0.1	0.1	0.1	0.1	0.1
6. net domestic product . . . . .	95.5	100.0	90.3	100.0	86.7	100.0
<i>financing of import surplus</i>						
7. private long term borrowing . . . . .	-0.1		-0.1		-0.2	
8. other long term borrowing (official and banking institutions) . . . . .	0.0		0.2		-2.2	
9. short term borrowing (balancing short term capital movements) . . . . .	-0.5		0.4		4.8	
10. net borrowing . . . . .	-0.6		0.5		2.4	
11. import surplus (commodities and services) . . . . .	-0.7		0.4		2.3	
12. other items on current account (net) . . . . .	0.1		0.1		0.1	
13. net deficit on current account = net borrowing) . . . . .	-0.6		0.5		2.4	

\*abja=100 crores=10<sup>8</sup>

TABLE 33: RELATIONSHIP BETWEEN THE NATIONAL INCOME AND THE OTHER MAIN AGGREGATES OF INCOME AND PRODUCT FOR THE INDIAN UNION\*

items	1950—51	1949—50	1948—49
	(2)	(3)	(4)
(1)			
1. net domestic product at factor cost . . . . .	95.5	90.3	86.7
2. earned income from abroad . . . . .	-0.2	-0.2	-0.2
3. net national product at factor cost = national income . . . . .	95.3	90.1	86.5
4. indirect taxes including miscellaneous fees . . . . .	5.4	4.9	4.5
5. less subsidies . . . . .	-0.4	-0.4	-0.4
6. net national product at market price . . . . .	100.3	94.6	90.6
7. net domestic product at factor cost . . . . .	95.5	90.3	86.7
8. less income from domestic product accruing to Government . . . . .	-0.7	-0.6	-0.5
9. income from domestic product accruing to private sector . . . . .	94.8	89.7	86.2
10. national debt interest . . . . .	0.4	0.5	0.5
11. earned income from abroad . . . . .	-0.2	-0.2	-0.2
12. transfer payments . . . . .	0.6	0.4	0.4
13. net donations from abroad . . . . .	0.1	0.1	0.1
14. private income . . . . .	95.7	90.5	87.0

\*In Rs. abja, abja=100 crores=10<sup>8</sup>

TABLE 34 : CURRENT ACCOUNT OF PUBLIC AUTHORITIES : ADMINISTRATION\*

	1950-51	49-50	48-49		1950-51	49-50	48-49
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>expenditure</i>				<i>revenue</i>			
<i>current expenditure on commodities and services</i>				<i>direct taxes on income</i>			
1. civil administration	3.36	3.17	2.95	10. corporation tax	0.39	0.40	0.64
2. defence	1.88	1.76	3.03	11. other income taxes	1.40	1.32	1.33
3. miscellaneous	0.35	0.45	0.40	12. land revenue	0.52	0.47	0.42
4. total	5.59	5.38	6.38	13. total direct taxes	2.31	2.19	2.39
5. subsidies	0.41	0.36	0.40	<i>indirect taxes</i>			
6. transferpayments	0.59	0.44	0.36	14. customs	1.60	1.41	1.39
7. total current expenditure	6.59	6.18	7.14	15. excise	1.12	1.16	1.07
<i>saving</i>				16. stamps	0.24	0.22	0.20
8. surplus on current account	1.42	1.06	—0.20	17. other taxes and duties	1.32	1.15	0.96
				18. total indirect taxes	4.28	3.94	3.62
				<i>fees and miscellaneous receipts</i>			
				19. civil administration	0.63	0.57	0.55
				20. miscellaneous	0.48	0.43	0.39
				21. total	1.11	1.00	0.94
				22. total tax revenue	7.70	7.13	6.95
				<i>transfer of operating surplus from current accounts of commercial enterprises</i>			
				23. railways	0.23	0.15	0.16
				24. others	0.19	0.17	0.09
				25. total	0.42	0.32	0.25
				<i>income from property</i>			
				26. interest receipts	0.10	0.10	0.10
				27. other receipts	0.16	0.16	0.13
				28. total income from property	0.26	0.26	0.23
				29. less national debt interest	—0.37	—0.47	—0.49
9. total	8.01	7.24	6.94	30. total	8.01	7.24	6.94

\* In Rs. abja, abja = 100 crores = 10<sup>8</sup>

TABLE 35 : CURRENT ACCOUNT OF PUBLIC AUTHORITIES: ENTERPRISES\*

	1950-51	49-50	48-49		1950-51	49-50	48-49
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>expenditure</i>				<i>revenue</i>			
<i>purchase of commodities and services from other enterprises</i>				<i>sale of commodities and services</i>			
1. railways . . . . .	0.68	0.67	0.60	17. railways . . . . .	2.66	2.60	2.35
2. others . . . . .	0.23	0.22	0.19	18. others . . . . .	1.13	0.97	0.82
3. total . . . . .	0.91	0.89	0.79	19. total . . . . .	3.79	3.57	3.17
<i>wages and salaries</i>							
4. railways . . . . .	1.15	1.14	1.13				
5. others . . . . .	0.48	0.42	0.40				
6. total . . . . .	1.63	1.56	1.53				
<i>interest payment to private sector through government (debt services)</i>							
7. railways . . . . .	0.26	0.23	0.22				
8. others . . . . .	0.09	0.07	0.07				
9. total . . . . .	0.35	0.30	0.29				
<i>provision for maintenance and depreciation</i>							
10. railways . . . . .	0.34	0.41	0.24				
11. others . . . . .	0.14	0.09	0.07				
12. total . . . . .	0.48	0.50	0.31				
<i>operating surplus</i>							
13. railways . . . . .	0.23	0.15	0.16				
14. others . . . . .	0.19	0.17	0.09				
15. total . . . . .	0.42	0.32	0.25				
16. total . . . . .	3.79	3.57	3.17	20. total . . . . .	3.79	3.57	3.17

TABLE 36 : CAPITAL ACCOUNT OF PUBLIC AUTHORITIES : ADMINISTRATION AND ENTERPRISES COMBINED\*

	1950-51	49-50	48-49		1950-51	49-50	48-49
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>expenditure</i>				<i>revenue</i>			
<i>commercial enterprises</i>				<i>10. surplus on current account</i>			
1. maintenance . . . . .	0.32	0.36	0.21	. . . . .	1.42	1.06	—0.20
2. capital outlay . . . . .	1.28	1.14	0.90	11. maintenance provision:			
3. net purchase of assets . . . . .	0.05	0.01	0.02	commercial enterprises	0.48	0.50	0.31
4. total . . . . .	1.65	1.51	1.13	12. net borrowing . . . . .	0.77	1.12	1.97
<i>administration departments</i>							
5. maintenance . . . . .	0.31	0.30	0.25				
6. capital outlay . . . . .	0.71	0.77	0.64				
7. net purchase of assets . . . . .	...	0.10	0.06				
8. total . . . . .	1.02	1.17	0.95				
9. total . . . . .	2.67	2.68	2.08	13. total . . . . .	2.67	2.68	2.08

\* In Rs. abja, abja = 100 crores = 10<sup>8</sup>

TABLE 37 : EXPENDITURE OF PUBLIC AUTHORITIES

	factor payments												other payments															
	wages and salaries			interest			surplus			total contribution to domestic product at factor cost			purchase of commodities and services from other enterprises			maintenance			provision [ transfer payments			purchase of assets			total of factor payments and other payments			
	50-51	49-50	48-49	50-51	49-50	48-49	50-51	49-50	48-49	50-51	49-50	48-49	50-51	49-50	48-49	50-51	49-50	48-49	50-51	49-50	48-49	50-51	49-50	48-49	50-51	49-50	48-49	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	
current account of public authorities : administration																												
1. civil administration and miscellaneous .	2.87	2.72	2.61	...	...	...	...	...	...	2.87	2.72	2.61	0.84	0.90	0.74	...	...	...	1.00	0.80	0.76	...	...	...	4.71	4.42	4.11	
2. defence . . . . .	1.07	0.98	1.09	...	...	...	...	...	...	1.07	0.98	1.09	0.81	0.78	1.94	...	...	...	...	...	...	...	...	...	...	1.88	1.76	3.03
3. total	3.94	3.70	3.70	...	...	...	...	...	...	3.94	3.70	3.70	1.65	1.68	2.68	...	...	...	1.00	0.80	0.76	...	...	...	6.59	6.18	7.14	
current account of public authorities : enterprises																												
4. railways . . . . .	1.16	1.14	1.13	0.26	0.23	0.22	0.23	0.15	0.16	1.64	1.52	1.51	0.68	0.67	0.60	0.34	0.41	0.24	...	...	...	...	...	...	2.66	2.60	2.35	
5. post and telegraph	0.27	0.23	0.22	0.01	0.01	0.01	0.04	0.03	0.02	0.32	0.27	0.25	0.04	0.05	0.06	0.03	0.03	0.02	...	...	...	...	...	...	0.39	0.35	0.33	
6. forest . . . . .	0.06	0.04	0.04	...	...	...	0.13	0.12	0.10	0.19	0.16	0.14	0.02	0.02	0.02	0.01	0.02	0.01	...	...	...	...	...	...	0.22	0.20	0.17	
7. road transport . . . . .	0.02	0.03	0.02	...	...	...	0.01	0.01	...	0.03	0.04	0.02	0.06	0.04	0.01	0.01	0.01	0.01	...	...	...	...	...	...	0.10	0.09	0.04	
8. industries . . . . .	0.05	0.04	0.04	0.09	0.08	0.08	0.07	0.03	0.02	0.15	0.09	0.08	0.07	0.07	0.05	0.03	0.01	0.01	...	...	...	...	...	...	0.25	0.17	0.14	
9. irrigation . . . . .	0.08	0.08	0.07	0.05	0.04	0.04	0.07	0.03	0.05	0.06	0.09	0.06	0.04	0.04	0.05	0.06	0.02	0.02	...	...	...	...	...	...	0.16	0.15	0.13	
10. others . . . . .	...	...	0.01	...	...	...	0.04	0.01	...	0.01	0.01	0.01	...	...	...	...	...	...	...	...	...	...	...	...	0.01	0.01	0.01	
11. total . . . . .	1.63	1.56	1.53	0.35	0.30	0.29	0.42	0.32	0.25	2.40	2.18	2.07	0.91	0.89	0.79	0.48	0.50	0.31	...	...	...	...	...	...	3.79	3.57	3.17	
capital account of public authorities																												
12. administration . . . . .	0.41	0.44	0.35	...	...	...	...	...	...	0.41	0.44	0.35	0.61	0.63	0.54	...	...	...	...	...	...	...	0.10	0.06	1.02	1.17	0.95	
13. enterprises . . . . .	0.53	0.50	0.37	...	...	...	...	...	...	0.53	0.50	0.37	1.07	1.00	0.74	...	...	...	...	...	...	0.05	0.01	0.02	1.65	1.51	1.13	
14. total . . . . .	0.94	0.94	0.72	...	...	...	...	...	...	0.94	0.94	0.72	1.68	1.63	1.28	...	...	...	...	...	...	0.05	0.11	0.08	2.67	2.68	2.08	
grand total . . . . .	6.51	6.20	5.95	0.35	0.30	0.29	0.42	0.32	0.25	7.28	6.82	6.49	4.24	4.20	4.75	0.48	0.50	0.31	1.00	0.80	0.76	0.05	0.11	0.08	13.05	12.43	12.39	

\* In Rs. abja, abja = 100 crores = 10'



TABLE 38 : INDIA'S BALANCE OF INTERNATIONAL TRANSACTIONS ON CURRENT ACCOUNT\*

	1950-51	1949-50	1948-49		1950-51	1949-50	1948-49
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>expenditure</i>				<i>revenue</i>			
1. merchandise imports . . . . .	6.33	6.13	7.39	8. merchandise exports . . . . .	6.47	5.20	4.70
2. government (not included elsewhere).	0.16	0.25	0.22	9. government (not included elsewhere).	0.19	0.21	0.24
3. investment income . . . . .	0.31	0.29	0.30	10. investment income . . . . .	0.06	0.09	0.12
4. donations . . . . .	0.06	0.05	0.06	11. donations . . . . .	0.19	0.16	0.15
5. other current payments for commodities and services.	0.44	0.35	0.38	12. other current payments for commodities and services.	0.95	0.91	0.75
6. capital outflow . . . . .	0.56	...	...	13. capital inflow . . . . .	...	0.50	2.39
7. total . . . . .	7.86	7.07	8.35	14. total . . . . .	7.86	7.07	8.35

TABLE 39 : INDIA'S BALANCE OF INTERNATIONAL TRANSACTIONS ON CAPITAL ACCOUNT\*

	1950-51	1949-50	1948-49		1950-51	1949-50	1948-49
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>expenditure</i>				<i>revenue</i>			
1. private long term capital (excluding banking institutions).	0.19	0.18	0.27	6. private long term capital (excluding banking institutions).	0.10	0.07	0.08
2. other long term capital (official and banking institutions).	0.15	0.20	2.46	7. other long term capital (official and banking institutions).	0.18	0.35	0.24
3. balancing short term capital (including errors and omissions).	1.18	1.04	0.12	8. balancing short term capital (including errors and omissions).	0.68	1.50	4.92
4. current adverse balance met by capital inflow.	...	0.50	2.39	9. capital outflow . . . . .	0.56	...	...
5. total . . . . .	1.52	1.92	5.24	10 total * . . . . .	1.52	1.92	5.2

\* In Rs. abja, abja=100 crores=10<sup>8</sup>.

2.214. It may be noted that the tables follow the formal pattern adopted in the First Report. The only major change is the dropping of the table on national accounts of the Indian Union. As it has not yet been possible to estimate the entries depicted symbolically in the First Report (provision for depreciation, consumer expenditure, gross private domestic capital formation and private saving), there is no point in repeating the symbols. The other changes are minor and are confined to the table depicting the relation between the national income and the other main aggregates of income and product.

2.215. As the tables given above present figures for three years, it is tempting to draw conclusions regarding change in the national income and its components over this period. There are, however, certain fundamental limitations that will inevitably attach to such conclusions on account of the fact that figures for each year are not all based on independent data for the year concerned. Thus, for example, the working force for each of these three years is calculated by interpolation on the basis of 1941 and 1951 census data; this affects those components of the national income estimates which are based on the income approach, i.e., the application of estimated income per worker to the number of workers in sectors like small enterprises, other commerce and transport, professions and liberal arts and domestic service. Somewhat similar considerations apply to the calculations of national income attributable to items like livestock product and fisheries, as well as some items of agricultural output for which we have used conventional estimates of value per acre. Lastly, the share of national income attributable to house property is based on conventional considerations rather than on actual indications of change from year to year. The only components of national income which can truly be regarded as reflecting annual changes would be the value of agricultural, mineral and forest output, net contribution of organised industry, net contribution of organised banking and insurance, net contribution of railways and State owned means of communications, and the contribution of Government sector in the Central, State and local fields. Further, the item relating to rest of the world is also based on actual figures for each year.

2.216. In view of these facts, it is somewhat hazardous to indicate possible inferences relating to change in national income over the three years 1948-49 to 1950-51. Nevertheless, we may draw attention to the following changes which our figures appear to indicate in national income over this period:

(i) The per capita national income at current prices has shown an increase of 7.4 p.c. from 1948-49 to 1950-51. But if they are calculated at constant prices, which is more meaningful, it is found that the per capita income has remained practically constant over the period, the figure showing a slight increase in 1949-50 (0.7 p.c.) and a slight decrease in 1950-51 (0.9 p.c. over 1949-50).

(ii) The national income at current prices as given in table 28, indicates a slight shift in favour of primary production; but if the figures are calculated in terms of constant prices, they show that the position is practically the same.

(iii) The contribution made by industry, which consists of factory establishments and small enterprises, shows a slight rise in terms of current prices. However, the figures when computed in terms of constant prices, show a slight decline. The proportion of the total contribution made by industry shows a fall both in terms of current and constant prices. This fall is not only true for industry as a whole but also separately for the two components of the industry sector, viz., factory establishments and small enterprises.

(iv) The one sector which shows an increase both in terms of current and constant prices as well as in terms of proportion to the national income is what may broadly be described as the public authority sector including communications, railways and Government services.

(v) Tables 34—36 relating to the Government sector show an increase in tax revenue, especially in indirect taxes, in Government expenditure, and in capital formation in the public sector, all of which are indicative of the increasing role of Government in the Indian economy.

(vi) Tables 38-39 which relate to India's foreign transactions, show over the period, a reduced net inflow of foreign capital.

2.217. For a detailed account of the figures relating to national output at constant prices, the reader is referred to appendix 1. It would, however, be rash to draw any further or more detailed inferences regarding trends from either this appendix or tables 28—39 above, partly because the period covered is short and partly because of the factors referred to in paragraph 2.215. It may, however, be possible to tie up our figures with previous estimates of national income notably those by V.K.R.V. Rao for 1931-32, and show some very rough conclusions regarding trends. We suggest that this should be left to research workers who may also be encouraged to undertake long-term studies in trends in national income.

2.218. We have already mentioned in paragraph 2.211 that we have not thought it proper to reproduce the table on national accounts of the country once again with several unestimated constituents. It will be apparent from a perusal of this chapter that the various sector estimates have now a more sound empirical base than the estimates in our First Report. But we have to admit that even though we paid considerable attention to this aspect of the matter, it was not possible for us to deal with the estimation of constituents designated by symbols in the

First Report. The main reason for this has been the absence of adequate data at our disposal. We feel, however, that it is important to get estimates, however rough, of these constituents. For this purpose, there is now available a certain amount of data in the two first round reports of the NSS and the analysis of company balance sheets conducted by the RBI. Further additional data of more detailed type bearing on the investment aspects will soon be available from the forthcoming reports of the Rural Credit Survey undertaken by the RBI. What will be needed then is a thorough assimilation of the currently available material and further *ad hoc* work on individual items and regions required for this purpose. This field of research could appropriately be taken up by non-official research institutions and universities.

## CHAPTER THREE

### RECOMMENDATIONS ON THE IMPROVEMENT OF DATA

3.1. The existing estimates have been arrived at, in the main, by calculation of the national product in the major fields of agriculture and organised industry. Data for estimating national product even in these fields are not completely satisfactory to-day. The main existing shortcomings in the area statistics are (a) incomplete coverage and (b) systems of compilation of varying accuracy. The merger of former princely states in the Indian Union have brought in large areas for which no reports were previously available, and where the system of reporting has not, even now, been fully extended. The statistics of yield rate are also uneven from the standpoint of reliability. The old method of a fixed standard yield and eye estimation of the annual condition of crops is unsatisfactory. Within the last decade crop cutting experiments of the ICAR and ISI have made considerable progress and now (i.e., in 1952-53) for the major cereal crops of rice and wheat, yield estimates are made as a result of the ICAR crop cutting experiments over bulk of the area under these crops. The ICAR\* is steadily extending the scope of the activities of its crop cutting surveys to other crops including commercial crops. Apart from major crops, there is to-day practically no information regarding the area and out-turn of various fruits and vegetables as also condiments and spices, etc. While it is gratifying to note that separate area and out-turn statistics for potato and a few other crops are now forthcoming, the coverage of such data is yet too small in view of the tremendous importance of some of the crops now lumped up in the area statistics given for these unclassified groups in the land utilisation statistics. Also, there is some degree of uncertainty in respect of the reporting basis of these crops.

3.2. In regard to improvement of area statistics, our recommendations relate first to the unsurveyed and non-reporting areas. In our view, immediate steps should be taken firstly to survey and map the unsurveyed areas and that secondly, in the non-reporting areas and in areas where no satisfactory reporting agency exists, steps should be taken gradually to establish such an agency. We feel that the reporting of area statistics should be ordinarily done by the primary agency responsible for the administration of land revenue for there is no other agency which is either more extensive or which reaches the village level with an equally full coverage. Moreover, as a consequence of land reforms

---

\*Now crop cutting wing of the NSS.

or of progressive changes in the administration of land revenue such agency is bound to come into existence in most areas where it does not exist to-day. This process might, however, take some time. The surveying and mapping of the unsurveyed areas might take even longer. As an interim measure, therefore, we suggest that in such areas which are either unsurveyed or where no satisfactory agency exists to report the area statistics, the statistics might be obtained on a sample basis with appropriate sampling procedure. The work might be done by the statistical bureaus, departments of agriculture or the revenue authorities of the respective State Governments. Some of the State Governments might need either technical or financial assistance in this matter; we recommend that this should be made available to them.

3.3. As regards improvement of the present area statistics, we feel that in view of the burden of multifarious administrative duties imposed on the present reporting agency, it will be a great advantage if the burden of statistical reporting is reduced in a rational way. At present in most of the temporarily settled areas, the area reporting is based, at any rate in principle, on a complete enumeration of crops by a plot to plot inspection of all cultivable lands. While there is a certain benefit in such total field coverage, we feel that in view of the burden of work it involves, it might not be necessary or advisable to attempt full coverage every year. We, therefore, recommend that while the basis of area reporting by the revenue agency should be primarily the same as it is at present, the total coverage should be attained over a number of years, say five, so that every year, the crop areas would be reported from only say one-fifth of the villages. This procedure should be carefully distinguished from the general principle of sample surveys. The requirement of a full periodic coverage, which period ordinarily should not be more than five years, is an important one and distinguishes this procedure from the ordinary sample survey. Our recommendation will require and enable the primary land records in all villages to be kept and maintained on a uniform basis. It will also enable the work of collection of data to be combined usefully with routine administrative duties of the administrative personnel. As we have earlier noted there is a certain advantage in the statistical collection and reporting being done by the agency responsible for the related administration—in the present case the revenue agency. In the first instance, the quality of data so collected is in general likely to be superior to that of material collected through *ad hoc* statistical agency. Secondly, when statistics are collected through administrative agency, such part of the material as might be urgently required becomes immediately available to the administrative agency. For instance, statistics relating to regions of special interest are often urgently required for a variety of purposes by the Government of a State. Besides, there is often a considerable amount of experience and knowledge other than the statistics proper which accumulates during the process of the collection of statistics. This can be

of use only when the statistics are collected by the administrative agency concerned. Another point to note is that while our proposal to spread the complete coverage over a period of say five years, will reduce the work load of area reporting to one-fifth of its present burden, it will nevertheless leave the 'sample' sufficiently large to make possible area estimates down to the tehsil level. In so far as the villages covered in any year are not exactly representative of the whole tehsil or district because the same villages will be covered in a periodic rotation, there will become apparent after two or three rotations, a periodic element in the annual estimates. It would then be possible either to revise the allocation of the villages between different years so as to reduce the periodic element or if the latter is not large to correct the annual estimates in subsequent years for the small periodic element.\*

3.4. As noted earlier, the present reporting of area statistics is not done everywhere on a uniform basis. The method of accounting for mixed crops is, for example, a point regarding which there appears to be considerable variation of practice. Similar is the manner in which the areas under the bunds and boundaries of fields are accounted for. There is obvious need for uniform procedure in these matters which will be related appropriately to the procedure of yield estimation. Area under a number of vegetable and fruit crops are also not available on a satisfactory basis. It would be desirable to show them separately for each vegetable and fruit crop where such crops are important.

3.5. With regard to the estimation of yield, the unsatisfactory character of the traditional method of fixed standard or normal yields and annual estimation of the condition factor is now well recognised and the method is being replaced by the method of crop cutting experiments. The extension of this method to all crops and to all areas according to the programme of the ICAR should normally lead to the desired improvement in the yield data. Not all agricultural crops are, however, amenable to this method. For instance, the garden crops growing vegetable and fruit in small patches spread over a large area either of very short duration or of which the fruit is picked in a series of frequent instalments might need other methods to estimate their yields. In such cases the yield is likely to be more stable than that of the more extensively cultivated dry crops so that in these cases special subject studies relating to yields and costs might be more fruitful than the annual estimation of average yields.

3.6. The aim of the yield estimation should be to provide estimates of agricultural production at least down to the district level within a reasonable margin of error. It is difficult to prescribe the desirable

---

\*The Chairman reserved his opinion on the view expressed in this paragraph.

accuracy of the district estimates. But the error variation in the district estimates should at least be less than the usual annual variation in them. It is by no means certain whether the method of the crop cutting experiments is capable of furnishing such estimates within reasonable expenditure. Until that is established, possibilities of other more expeditious and less expensive methods should be examined. From this point of view it is well worth examining the results of the traditional methods of yield estimation against the results of the crop cutting experiments. Though the traditional method has been justifiably criticised and rejected as unscientific, we are not aware of any critical examination of its results in the light of the results of the crop-cutting experiments now becoming available. Such an examination might suggest possibilities of improving the method and making it serviceable. It is worthwhile, for instance, rejecting both the notions of the standard yield and a condition factor to be estimated by the patwari, but instead asking him to estimate the crop yields directly in terms of so much per acre. It might be worthwhile attempting to supplement such official reporting by similar reports from informed cultivators. It might be for instance worthwhile to define the notion of the standard or normal yield as the crop condition in a recent year, and asking the reporters to report on the current condition with reference to that year. It is obviously possible to suggest many modifications which might be attempted in the traditional method. We wish to impress the need to have the district estimates of agricultural production within the reasonable margin of error and, of course, within reasonable costs. Therefore, if the method of crop cutting experiments is likely to prove too expensive for this purpose, there should be no objection to combining it with the traditional method with suitable modifications; for, after all, it is that method in modified forms that forms the basis of crop estimation in the United States of America and many western countries. It should also be noted that that method alone has possibilities of crop forecasting for which purpose the method of crop cutting experiments is obviously not suited.

3.7. The statistics of agricultural prices are to-day in a chaotic state. There are any number of price series, all haphazardly collected, and there are divergences in the prices collected by different agencies for the same product within the same area. While differences in prices may arise in view of product differentiation, or to some extent, in view of price inflexibilities in a country of big distances and poor communications, doubt arises about the generality or representativeness of the prices or price averages available in view of the large reported divergences. The harvest prices available in the Season and Crop Reports are known to be of doubtful validity; the Imperial Bank quotations of harvest prices are known to be wholesale prices (during the harvest period) in big market towns where the Imperial Bank has branches. Quite frequently these harvest prices are found to be higher than wholesale prices given in Government gazettes, etc.



3.8. In the sphere of agricultural produce the best approach would be to classify markets rather than prices, *i.e.*, instead of talking in terms of producers' prices, traders' prices, harvest prices, etc., it would be best to talk of prices at certain types of markets. No attempt to collect village prices need be made. Consumer prices at the regular weekly or other markets are the most significant and producer prices at the village level are apt to be more mixed with other transactions than those at regular markets. Also the field is extremely wide. Two main divisions of rural markets appear to be (1) markets on which the sellers are, in the main, producers and (2) markets on which the sellers are in the main intermediaries. The first category could be further divided into (a) special commodity markets and/or markets which are regulated in some way, and (b) general and unregulated markets. Category (2) could also be subdivided into large city markets, specialised commodity entrepot centres, etc. There is an enormous amount of price data collected today by a variety of agencies, the bulk of which is put to no intelligent use. A preliminary analysis of types of markets could lead to a great deal of rationalisation of the work of collection of data and, as a consequence, to a more systematic and more prompt presentation and publication of the material.

3.9. Among price data consumer prices are better covered than producer or intermediate prices. Consumer price data which enter into the urban cost of living indexes are the best organised. The chief defect in them appears to be the somewhat exclusive focusing of attention on items entering into working class consumption. It needs to be examined whether some items which do not fall within this field should not in addition be covered by the same agencies. The rural consumer prices are, however, not adequately looked after. The LB has made one systematic effort in this field, but the choice of its original centres was heavily biased by such requirements as the location at a railway station. Collection of rural consumer prices has, therefore, yet to be systematised. There would be no difficulty in combining this with collection of other rural prices.

3.10. To be useful, price statistics, as different from many other statistics, need a more frequent collection and more prompt publication. Apart from their use in national income computation, the price statistics when properly collected and promptly examined are also likely to be useful guides for day to day policy in various fields. From this point of view, an integrated examination of all price statistics, agricultural and non-agricultural, by a single body is likely to prove useful and economical. The size of the statistical mass of price data might be judged from the fact that an average of 100 commodity prices from at least one centre from each tehsil of the Indian Union would give 200,000 375 M. of Fin.

price quotations. It is obvious, therefore, that their handling and analysis would prove more difficult than their reporting. The objectives and basis of price data collection therefore need to be carefully examined.

3.11. Data regarding costs of cultivation are extremely meagre in India. Special importance also attaches in this country to the computation of inputs in physical terms. We consider the problem to be important enough to be given special attention. The data involved are, however, of a different type than those that can be collected in routine administrative collections. Data on cost of cultivation relate to what might be described as structural relations in particular economies which would naturally be more stable than the annually fluctuating items. It would be advantageous therefore to obtain such data from farm management or cost of cultivation studies undertaken on a small but intensive scale by academic bodies and research institutions.

3.12. The existing information on livestock numbers and products is very unsatisfactory. For improvement of data relating to the livestock sector, we have to improve both the quality of information on number and yield rates, and the periodicity of the availability of information. Our principal recommendation regarding the statistics of livestock is that the present quinquennial census of livestock should be converted into annual partial census with full coverage to be attained in five years\*. As the census is usually carried out by the primary revenue agency, the partial annual census will distribute more evenly the burden that falls on this agency every five years. In fact the census might be undertaken every year in the same one-fifth villages in which crop inspection for area reporting would be done according to our earlier proposals. This will also make available more continuous estimates on livestock numbers.

3.13. Yields of many kinds of animal products do not share the characteristics of agricultural crops and hence need not be obtained from annual reporting on any extensive scale. Estimates of yields of products like milk, wool and eggs could be made on the basis of the relevant livestock numbers, if satisfactory yield rates per animal type are established. Similarly the estimates of products like bones, hides, blood could be made on the basis of rates of such product per animal slaughtered or dead. It would be appropriate to obtain information regarding these yield and other rates from intensive small scale periodic studies into livestock economics by academic bodies. The above does not, however, apply to such data as the annual number of livestock slaughtered for meat. Information regarding these can be made available by slaughter houses and Government should require local authorities and others responsible for the maintenance of slaughter houses to make full returns to State Governments in prescribed forms.

---

\* The Chairman reserved his opinion on the view expressed in this sentence.

3.14. Regarding forest area, the available forest department figures are not very unsatisfactory. There is, however, great delay in release of the figures and an effort should be made to avoid this. Moreover, a stricter definition of forest area should be introduced and the present practice of including certain lands not under forest should be avoided. Little is known about deduction necessary for the derivation of the net value of output of forestry. A few studies on forest exploitation, if undertaken, will lead to an improvement in the basis of netting adopted in this report. The Indian Forest Research Institute may fruitfully undertake some work in this direction.

3.15. As regards products of fisheries, particularly, the annual catch of fish, we understand that the ICAR is evolving a method requiring physical observation by observers posted all along the coast. We do not have the full details of these schemes nor the results thereof. Perhaps the schemes are yet in the experimental stage and it would be premature to judge their efficacy. Nevertheless, even supposing that as an experimental scheme the method gives promising results, we have some doubts as to its practicability as a routine operative procedure. Therefore, though the ICAR schemes might be continued on an experimental basis to aid evolving better techniques of measurement, we suggest that for estimating products of fisheries, two other approaches might be tried. One is a periodic census of persons, boats and nets engaged in fisheries coupled with intensive studies of their operational economies. The first could be done through State departments of fisheries wherever they exist or through the State bureaus; the second could be done by fishery schools or other research institutions. The second approach would be through collecting data relating to the processing and marketing of fish and fish products. A combination of the two methods should yield, though not necessarily complete, nevertheless usable estimates of products of fisheries. Apart from the present absence of estimates of products of fisheries, there is almost complete lack of systematic knowledge of the basic practices and working of this economy. We recommend that special studies in this field should be encouraged and assisted.

3.16. While the collection of data relating to factory industries is facilitated by the comparatively better organised character of the producing units, the main defect in statistics of factory production is that the CM does not cover all of them regularly. Until recently, statistics relating to factory establishments have largely been the offshoot of labour legislation and labour welfare policy, and for a limited number of industries, of tariff and commercial policy. Hence, even while requirements of basic production data led to the collection of a variety of new statistical material relating to this sector, the data collected were restricted in scope. Under section 2j of the Factories Act of 1934, factories were defined as establishments employing 20 or more persons and using power, and while

section 5(1) of the Act also included factories employing between 10 and 20 persons and using power and those employing 20 or more persons and not using power, the notification of such factories was left to the discretion of provinces. Despite the revision of the Factories Act in 1948. (to include all factories employing 10 or more persons and using power, or employing 20 or more persons and not using power), the CM is still restricted to factories defined under section 2j of the Factories Act of 1934. The CM suffers from the further defect that it covers only 29 groups of industries out of a possible 63, leaving out some quite important industries out of its scope, and also does not extend to the entire Indian Union territory. A sample survey of manufacturing industries for 1949-50 was undertaken by the DIS to fill this gap.

3.17. While there should be no objection to sample enquiries filling gaps left by the annual census we would be opposed to any move that negatives the good beginning made by the DIS by initiating the annual census of manufacturing industries. We say this because instead of trying to make good its deficiencies in regional and subject coverage, there has been apparent, in recent years, a tendency to replace the census itself by means of a sample survey. If an annual census of manufacturing industries is not manageable, it should be made manageable by spreading it over a number of years. But it does not seem advisable to replace this systematic record by means of sample estimates. There are various ways by which the annual census may be distributed over a number of years. Firstly, there is the method of partial annual census with full coverage in three or five years, which we have mentioned in connection with the crop area statistics. In relation to the census of manufacturing industries, the method might be modified in various ways. Thus the units to be covered in any year, instead of being drawn from all groups of industries might be confined, if that appears more convenient, to only a few groups of related industries which (groups) in the particular year might be fully covered. Or preferably, only the larger units in the more important industries might be covered every year while the remainder might be covered by a partial census spread over three or five years. There are more variations and the one which is most suitable to administration might be adopted. We feel, however, that the basis of this collection should be a systematic census and not a random sample survey.\*

3.18. In addition to what is available in the CM, statistics of factory employment are also furnished by the LB. These statistics are available on annual basis and it is important that they should be continued. However, it is necessary that the scope of the statistics of employment published by the LB is clearly defined, their difference, if any, from the employment data available through the CM accounted for and the two sets made comparable. This work should be done by the LB itself.

---

\* The Chairman reserved his opinion on the view expressed in this paragraph.

3.19. The IBM is expected to collect new statistical material under the Minerals Conservation and Development Rules and this material should help to fill in deficiencies in existing minerals statistics. The most important gap in the sector from the point of view of national income estimation is the absence of any material on the purchase of goods consumed in the process of production, except for coal consumed in the collieries; and this gap will be filled only when data are forthcoming under the Minerals Conservation and Development Rules.

3.20. The official annual estimate of employment in mining industries is considerably below the 1951 census estimate of working force in mining industries. This indicates that there may be a fairly large under-estimation in mining employment statistics arising probably out of inadequate coverage of unorganised quarries, etc. We recommend that efforts may be made by the IBM to examine the discrepancy and to take adequate measures to fill up the gap.

3.21. The whole field of small scale industry is inadequately covered or almost not covered at all today. This happens in relation to all aspects, employment, cost structure, income, output, etc. Even in the important field of handloom weaving of cloth, the estimated production is based, for the major part, on estimates of yarn consumed by the handloom industry rather than on direct data relating to the production of the industry. Our present estimational procedure makes use of decennial census occupation figures, for an estimate of employment in industry, from which employment in small enterprises is derived as a residual after factory employment is taken out. Apart from the usual defects of census data, namely, timeless character of the estimates and vagueness and changing character of the definitions, these data tell nothing about actual employment. While this defect would not significantly affect household enterprises producing mainly for self-consumption, it is particularly important in respect of industries like handloom weaving where price disbalance or shortage of yarn can put the entire industry out of gear. Unfortunately we have no evidence on which to adjust for such situations; we have only got a few case studies which indicate to us the nature of the problem and consequently, the rough character of our estimates in this sector. The Planning Commission in its draft outline report has considered the possibility of dividing markets or spheres of production in major industries as between the artisan or cottage and the machine or factory industry. Any satisfactory way of effecting this would involve considerable control and periodic collection of information about the two activities within which a division is made. In this case it is apparent that data will be available for all those sectors between which a division of markets or spheres of production is attempted. Such data may not, however, fully cover employment and the attempt, if made, will be concerned with only a small number of industries. The improve-

ment of data relating to employment and production in small scale industry thus constitutes a difficult problem. Nevertheless in view of the importance of this sector from many points of view, it is necessary that systematic attempts be made to collect information relating to it. We recommend that State bureaus should pay particular attention to this field, especially in relation to employment and earnings therein. Our recommendation applies both to the urban and rural sections of small scale industry.

3.22. With regard to the data relating to the cost structure of this sector, it will of course be more stable. These data should therefore be collected as part of special studies to be undertaken by academic bodies or research institutions. Nevertheless, in view of the extent and variety of economic activity in this sector, we recommend the following course of action. Each year, the Government should initiate, through State bureaus and non-official agencies, an integrated programme of special studies all over the country directed towards one or two selected industries. Thus in one year, studies might be initiated all over the country, to study the economy of handloom weaving or oilpressing. Such studies should be planned and directed by a central committee of direction and a comprehensive report prepared. Apart from their value to national income computation, such studies will furnish an integrated knowledge of the working of various small scale industries and of the problems associated with them. It is likely that all-India organisations specially set up to encourage or protect small scale industries will actively interest themselves in such a programme.

3.23. The trading sector is another field where information is scanty in regard to both employment and income. In recent times, a new source of information appears to have become available. The sales tax has now become an important fiscal instrument in every State; and the sales tax administration should be capable of providing very valuable statistics relating to trading activity. The information yielded would, of course, depend very largely on the type of the sales tax imposed. However, certain possibilities may be indicated in a broad way. Wherever any stage of transaction is exempted from the tax it should be possible to ascertain the numbers exempted at each such stage and possibly also the volume of transactions at that stage. Wherever there are any categories who pay the tax in fixed lump sums without a calculation of turnovers, statistics relating to these categories could be separated from those of others. Statistics relating to commodities subject to special rates could as far as possible, be presented separately for each such item. The general data may be presented in relation to a classification of types of shops or establishments and in relation to classes of turnover of the assesseees. The classification both in respect of types of shops and the ranges for classes of turnover should be adopted on a uniform basis for all States in India. The commodities in which trading

is specially licensed, as for example, petroleum, should also yield useful data. In order to ensure that suitable action is taken for making possible such utilization of sales tax data, we recommend that this item be taken up by the Central Government with the State Governments at the next conference to be convened by them of State sales tax administrators. As regards trade margins and distributive costs, we recommend that structural studies of the type we have indicated in respect of agriculture, livestock and small industries be also undertaken in this field.

3.24. Another sphere in which the present regulatory systems should yield important data relate to producers' durable goods and capital equipment, especially where it is imported. Import data are available by fine break-downs, and give a reasonably complete picture of imports of durable producers' goods, except in certain cases where it is difficult to separate statistics of consumer use from those of use for business capital expenditure, *e.g.*, purchases of, say, automobiles, typewriters, etc. Even when capital equipment is not imported, the present capital issue control and the control that might be exercised through the Regulation of Industries Act should require and enable information to be collected on capital investment in plant and machinery and capital expenditure on replacements which should be useful for framing estimates in relation to important aspects of capital formation. The difficulty of combining the two sets of data would, however, be that while the former relates to flow of commodities, the latter will supply only financial statistics of industrial investment. To complete the picture of the commodity flow for investment purposes, one requires information about the domestic output of commodities with detailed break-downs. These are not yet available, although an attempt is being made to collect information regarding industrial output and sales directly from producers by the Development Wing of the Ministry of Commerce and Industry. When further progress is made in this direction, information on total sales in the country of particular types of capital goods may not be difficult to compile. In the meantime, we recommend that existing material on such capital formation should be brought together and suitably processed for publication by the NIU.

3.25. Another sphere in which some improvement of present practices would make useful data on economic or production activity available is that of building construction. House construction within many municipal, etc., areas is regulated. However, the system of regulation does not yet yield useful statistical data. For this to happen it would be necessary to introduce certain broad divisions within the field of permits granted for building operations. A tentative classification may be suggested, as follows (1) construction of independent structures (2) major alterations in or additions to existing structures (3) repairs and minor alterations in or additions to existing structures. Estimates of costs of the work permitted, whenever such information is asked for under the

regulations, should also be included with the statistics tabulated so that under each broad head the number of entries in the different classes could be noted. Wherever there is provision for the issue of a completion certificate in addition to that of building permits similar statistics may be maintained regarding these certificates. This would not only serve as a check on the permits data but may also yield valuable indications regarding the pace of building activity from period to period.

3.26. As regards transport, data regarding employment and income are available only in regard to railways. Similar data are not available even in regard to motor transport undertakings of State Governments. Further, no information is available regarding privately owned motor transport as well as other forms of rural and urban transport. It is important to get adequate information about this field not only for more correctly assessing the contribution of the transport sector to the national income but also for more correctly calculating trading incomes. We recommend therefore that (a) an annual report should be prepared by the Central Ministry of Transport bringing together all available statistical data regarding State transport undertakings and (b) structural studies of the type we have indicated in regard to agriculture, livestock, small industry, and trade should also be undertaken in respect of all forms of urban and rural transport.

3.27. It has been pointed out that in the national income estimates compiled by us certain gaps left by product estimates are filled in by estimates regarding income. An attempt has been made so far to indicate how in some directions the product estimates could be extended or be further improved. We shall now turn to the possibility of compiling adequate estimates on the income side so that ultimately a double set of figures, comparatively independent of each other may be obtained for national income estimation. In income estimation great reliance has to be placed at present on the classification of occupations. This classification of occupations is unsatisfactory and the need to rely on it for the basic occupational division of the population must be considered as one of the weakest links in Indian national income estimation. The Census of 1951 has attempted some improvements in occupational classification. Thus the census is now designed to give a rural-urban breakdown and also a classification by employment status of the employed population. In the latter classification the category of the 'employees' persons is likely to be useful. As a first step, we recommend that an attempt should be made to muster together all statistics of wage or salaried employment from all possible sources for the period approximating the census period and compare them with the corresponding census statistics. An examination of the resulting discrepancies will throw light firstly on the limitations of the census data and secondly on the coverage of the other sources. Secondly it should be examined as to which of these sources are available or can be made available with moderate effort.



on a continuing basis. A number of such series should be possible. The first one would be the statistics of factory employment covered by the Factories Act and which in one way or the other should be covered by the CM and/or by the LB. For industries covered by the workers provident schemes, more intensive employment statistics should become available. The second would be the employment in all corporate businesses governed by the Company Act. It might be considered whether statistics of employment could be included in their annual returns. The third is the employment in the public sector consisting of the Union and State Governments, district and local boards, municipalities and other local governments as also the public corporations. When Government obtains so much from the commercial and industrial concerns in the form of statistical returns, it would not be too much if the statistics of employment in all these bodies are also expected. Next is the employment in all forms of cooperative institutions, schools, charitable institutions and other non-profit making bodies governed by registration of societies. Lastly is the employment in shops and other establishments requiring licensing or other regulation such as of conditions of employment by the State and local governments. If these categories cover a substantial number of the employee population, the residue might be estimated by statistical adjustments and a satisfactory series of employee statistics would result.

3.28. Certain classes in the category of 'self-employed' in the census classification would also be of interest. An attempt may be made in the same way as above to muster corresponding statistics from all possible sources and compare them with the census categories. Important among these are professions requiring licensing, such as the medical and the legal. The registers of the licensing bodies might be examined from the point of view of their comparability with the census returns. Other important source material would be from the licensing of certain minor professions and shops and establishments by the State and local bodies. The objective would be to try to build employment series from independent sources and to indicate their coverage in relation to the census coverage and classification so that the occupational structure during the inter-census period might with some approximation be judged. This is a field which requires considerable analytical work and we anticipate many difficulties.

3.29. In relation to the employee population statistics of employee compensation, that is payment of wages, salaries and wage supplements, should be comparatively easy to obtain and establish on a continuing basis. In the above, we have classified the employee population in a number of principal categories in which the statistics of employment might be made available. If this is found difficult, it might be considered whether at least the annual statistics of total wage and salary payments together with other constituents of employee compensation

such as provident fund, pension and social security contributions might be called for in the annual returns of various types of establishments. We recommend that these statistics should be obtained in the form of regular returns from all bodies we have mentioned in the above and any others which can be so regulated. Apart from their use in the computation of personal income component of the national income, these statistics would be of considerable interest in themselves. For instance, it would be of great interest to know what part of the total employee compensation is covered by pension, provident fund, insurance and other social security schemes. It would be desirable to entrust the handling of the collection and analysis of all these statistics of employment and wages to a single body. Among the existing statistical offices of the Union Government, it appears to us that the LB would be the best suited for this purpose. We recommend therefore that the scope of the LB statistics should be extended to all employees.

3.30. The principal categories of employee compensations left out so far are the payments to farm labour and to domestic servants. Payments to farm labour are important both in their magnitude and in their economic bearing. They include salaries, and wages paid in cash and kind supplemented by all kinds of wage supplements to a large body of employees often employed for very short durations and under very irregular conditions. A routine collection of these statistics on an annual and continuing basis does not seem therefore possible. It is also not certain that such payments would bear any stable relation to other factors in farm economies which might be evaluated by intensive studies. In this connection we may refer to the idea of the agricultural census that was mooted at the time of the census of 1951. The contemplated census might have afforded information on a number of important points that have to be covered for estimating employment and output in agriculture. However, on account of the large measure of annual variation in this activity a decennial census would not have proved of much help in annual estimations. For this purpose a more continuous collection of data is necessary. A satisfactory solution might be the institution of an annual rotational agricultural census on lines recommended by us for crop reporting and livestock numbers. However, this must, under present conditions, be considered a somewhat distant ideal. In the meanwhile, it would be desirable to encourage efforts by State departments of revenue or agricultural or State bureau of economics and statistics which seek to gather continuous information regarding the tempo of agricultural activity. We would draw attention to the survey of employment and earnings in rural areas conducted for some time by the Bombay Bureau, which unfortunately seems to have been discontinued. All such work is important from the point of view of State authorities being in touch with current variations and developments and any data that throw light on current variations in employment, output

and earnings will prove of the greatest value in national income estimation. We recommend therefore that State Governments should collect annual data on the subject by conducting surveys of employment and earnings in rural areas. As regards domestic servants we recommend that income studies should be undertaken in different regions of the country in both urban and rural areas on the lines of the structural studies we have recommended for other sectors.

3.31. Statistics of personal incomes of the self-employed are more difficult to obtain. The income of the self-employed, namely, the farm operators will have to be obtained from the production end for some time. Reference has also to be made to small scale industries. Incomes of the self-employed in these can only be obtained as special type studies. The two together, will cover a large majority of the self-employed in the rural areas. In the urban areas, there will be a large component of independent professional practitioners. Besides these, there will be traders who will be found in all areas. We do not think that any systematic data collection is possible in respect of incomes accruing to these. The national income computation in these respects must make use of miscellaneous and fragmentary data such as the income-tax returns, trade margins indicated by wholesale and retail prices, etc. We have, therefore, no specific recommendations to make for collection of new data in these fields except that special studies should be encouraged and assisted, especially socio-economic surveys of selected families in rural and urban areas.

3.32. Other components of personal income are interest, dividends and rentals. Payments of interest and dividends by corporate businesses should be available from their annual returns. Interest payments in relation to rural debt constitute an important aspect relating to which estimates are not usually made. During the last 15 years considerable data have accumulated in this regard. There have been many schemes of debt adjustment which ask for full returns regarding debt and legislation regarding registration or licensing of money lenders with provisions for inspection of their operations. Many debt enquiries have also been undertaken, on a large or a small scale. The sphere of co-operative finance is increasing in most States. All these should help in estimation. Interest receipts of private moneylenders might be obtained by adjustments from the bench mark data largely furnished by previous credit surveys. Co-operative society operations could be studied from annual returns. Estimates of rental incomes obtained by land owners may now become available in a more extended measure through operation of the various laws regulating the status of tenants and rental charges that can be imposed on them. As regards rentals of houses, there is need for systematisation and regular compilation of the municipal returns. Special studies might also be undertaken to study the relation of the property

tax returns of the municipalities and the income from real estate, actual and imputed, accruing to the property owners. We recommend that the NIU should pay early attention to the implementation of the suggestions made in the paragraph.

3.33. Improvement of income tax data, both in respect of coverage (*i.e.*, by elimination of evasion, lags between tax accruing and tax paid, etc.) and presentation (*i.e.*, total income rather than income assessed to tax; distribution of personal income), will fill a major gap in income statistics. We understand that efforts have already been made to present the available data in a more useful form; but the income tax data, as at present collated, cannot be as useful as, say, in the United Kingdom owing to certain aspects of the Income Tax Act. Apart from the complete omission of agricultural incomes and all incomes below the minimum exemption level, our present income tax statistics can only tell us about the distribution of earnings by assessees which include not only joint families but partnerships and businesses. Thus distribution of personal income cannot be estimated from the present tax data. A not often noticed handicap in using the existing income tax data is the omission from income tax returns of agricultural income accruing to assessees; to the extent any important part of income assessed to income tax is in respect of agricultural incomes, a distribution of incomes based on the present returns of income would be misleading. Agricultural income tax is levied in a few States. An important tax reform which is likely to be generally undertaken is that of the imposition of an agricultural income tax in all States. The imposition of income tax on agricultural incomes in all States would remove this defect to a considerable extent especially if its administration is related to that of ordinary income tax. It would further make available data relating to income and further details presumably relating to gross and net receipts in a field of economic activity which though important in India is one in which the least amount of statistical data of this sort is available.

3.34. We have estimated the income originating in public sector from an analysis of the published accounts. The procedure enabled us not only to estimate the contribution to national income but also to give a somewhat detailed presentation of various transactions of these sectors. Available data, in general, proved adequate for our purpose. Certain minor difficulties encountered relate to (a) delay of release and lack of detailed breakdown in respect of summary statements on the accounts of various local authorities and (b) lack of details in the published accounts of the public enterprises (including construction) and also in the fund accounts. We recommend that the CSO should take suitable steps to rectify the former shortcoming. Regarding the latter, the possibility of improvement should be explored by the Ministry of Finance in collaboration with the NIU.

3.35. It would be observed that we rely for the major part in the improvement of national income data on the existing reporting systems or the extensions of such systems as a result of further activities by the State. Apart from the elaboration of work of special agencies such as the ICAR or the DIS or any extension of work or special surveys undertaken by them or other organizations like the RBI or academic bodies and research institutions, it is our opinion that it is safest to look to the data arising out of normal administrative working and normal reporting by establishments or persons themselves. Apart from what we expect to be the extensions of such a reporting system, the rationalisation and co-ordination of even the data at present reported would in our opinion lead to considerable progress in the field of national income estimation. As supplementary to the data arising from normal governmental activity we would lay emphasis, in the particular context of national income estimation, on planned intensive studies which would enable students to process the data and to provide the necessary breakdowns and to make an analytical study of concepts, procedures, etc.

3.36. We have attempted in the above to cover the entire field of statistics required for national income estimation and made various recommendations for their improvement. We recommend that the NIU should prepare a periodic report on the progress made in the matter of this improvement and submit it to the Advisory Committee which we recommend should be set up in chapter 4.

3.37. The subsequent paragraphs of this chapter are devoted to the NSS which was established in 1950 as a continuing sampling organisation. The major objective of the NSS is stated to be the quick collection and tabulation of data needed by Government. We are, however, not concerned with examining this aspect of the survey, nor are we concerned with its organisational problems. We are concerned solely with the statistics made available by the NSS for the compilation of national income estimates and our examination of the survey is limited to this aspect only.

3.38. So far it has not been possible to make any significant use of the material thrown up by the survey for national income estimation purposes. While our income estimates are computed partly by evaluation of production and partly by estimation of income, the NSS data on these broad fields collected during the first round are neither adequate nor are considered sufficiently reliable; data collected in subsequent rounds have not yet been fully processed. Thus, at present apart from some minor items, the survey data which could be utilised for our purpose relate either to certain estimates of cost structures, or to certain values and prices.

3.39. It should be pointed out that in future also a large part of the requirements of national income estimation will have to be met through the data normally collected by the various organs of the Government at the State and at the local authority levels. The NSS by its very nature cannot replace this process. Moreover, estimates of variation in employment, production, etc., will be required at the level of tehsil or taluqa or a small group of comparatively homogenous tehsils or taluqas for current administrative purposes and for the implementation of detailed physical planning by State and local authorities.

3.40. It is therefore necessary to build up sufficient field agencies of State Governments. A number of State Governments already have their own statistical bureaus. We think it is a matter of high priority that States which do not have such bureaus should institute them. The CSO should play an important part in helping to raise the activities of the State statistical agencies up to a minimum standard of performance and in securing the required measure of uniformity. Central aid, technical and financial, for achieving this objective should have high priority. The normal collection of statistics as by-products of administrative activities should be left with the appropriate departments of State and Union Governments. The advice of the CSO and the NIU will of course be available to all these agencies. In all this work due attention should be paid to the needs of estimation of national income and related totals.

3.41. Consumer expenditure, on which the NSS has in the beginning laid so much stress, is a field of study where much more experience needs to be obtained before one can pass any definite judgment on either the reliability or the utility of the material for national income estimation and analysis. One view of the matter is that, under Indian conditions, it would be very difficult to obtain reliable data on a subject like this where, even in countries with advanced industrialised and monetised economies with ample financial resources and fully literate populations, no attempt has been made so far on a national scale either to collect data on consumer expenditure or use them for national income purpose. According to the same view, it is also difficult to see what precise use could be made of such data for policy purposes in India and it is contended that more useful results could be obtained by incurring the same expenditure on other types of investigation. Another view is that, in spite of all its limitations, consumer expenditure data collected by the NSS could, with increasing experience, be used as a check on national income data obtained by the product and income approach; and also that it could be used, perhaps at a later stage, for estimating social accounting flows and for macro-economic analysis useful for policy purposes. The Committee as a whole does not express any opinion on this question. If, however, the NSS is going to continue to collect such data, we feel that the investigations are planned and the data collected are processed in such a manner as to yield maximum advantage for purposes of economic analysis.

3.42. The NSS, if continued, can also be used for collecting data on a number of items in the national income field on which at present but little information is available. Thus, for example, capital formation in rural areas, involving as it does physically observable data, can be one such item. The extent of the non-monetary sector, income of artisans and other non-agricultural workers, income of agriculturists from subsidiary occupations, analysis of earners and working dependents, duration of employment for both agricultural and non-agricultural workers, rural housing, harvest prices and village trade margins, income from rural transport, all these are subjects on which, with careful planning of investigation and analysis of data, some light can be thrown by the NSS with advantage to national income work. Moreover, there is at present a very inadequate understanding of the structure of the Indian economy; and if different items are taken up one by one for national investigation or if a concentrated attempt is made at investigating regional economies, the resulting material properly analysed, would be useful not only in improving national income estimation but also in the vital field of national income research and analysis.

3.43. We would, however, emphasise one aspect in which we feel the NSS needs considerable strengthening if it is to continue and be made useful for national income work. National income work is essentially a part and an important part of applied economics. The type of data that needs to be collected, the manner of its collection, the planning of the investigation and the processing of the data collected are all matters which fall as much within the technical competence of the economist as of the statistician; while an economist is almost exclusively concerned with the analysis and use that is to be made of the material. It is therefore essential that in the planning, conduct, processing, and analysis of the national income work to be carried on by the NSS, the economist's services must be drawn upon to a large extent. Indeed, what is needed is an integrated approach; and the collective and co-ordinated functioning of economists and statisticians at all levels, if the NSS is to be successfully used for assistance in national income work. At present, however, the NSS is carried on by the ISI, which is primarily a statistical organization. We would suggest therefore that, in respect at any rate of national income work, the NSS should be planned and operated under the guidance of a strong technical committee which would include economists of proved competence. In fact the Planning Commission has already set up a Research Programme Committee which consists of statisticians, economists and other social scientists; and this body is engaged in planning and guiding research work that is connected at various points with the national income work of the type we have been discussing in connection with the NSS. We recommend therefore that close liaison should be established between the NSS and the Research Programme Committee

of the Planning Commission; and that a joint body drawn from this committee and the ISI should be set up to look after the work of the NSS in connection with national income work. This joint body should make periodic reports to the Research Programme Committee and through them, to the Planning Commission who will then determine how and to what extent this work should be modified, strengthened and expanded. In this manner, full use could be made by the country of sampling techniques and statistical and economic organisations in improving the coverage and quality of national income data, strengthening the field of fruitful economic analysis, and enabling its use for purposes of planning and economic development\*.

---

\*The Chairman reserved his opinion on the view expressed in this paragraph.



## CHAPTER FOUR

### RECOMMENDATIONS ON INSTITUTIONAL SET UP FOR CONTINUED WORK IN NATIONAL INCOME

4.1. Work on national income can be contemplated at different levels. We may think of work connected with estimation of certain aggregates and accounts relating to a past period. This process of estimation involves a study of concepts and definitions, a critical examination of available statistical material, and the using of the material for arriving at the estimates. In the absence of a more appropriate term, we will speak of this type of national income work as the compilation aspect of national income estimation. Another aspect of the work relates to the utilisation of the national income estimates and other relevant data to find out the possible course of these estimates in future, and also to find out the hypothetical courses when a given set of policy decisions is taken. This type of work, which makes the national income estimates useful for policy purposes, may conveniently be called the budgeting aspect of national income work. There is also need of continuing research work an important aspect of which is economic analysis.

4.2. Obviously, the basic work is that of compilation. For this purpose we recommend that the NIU be placed on a permanent basis. The main work of the NIU will be the compilation of annual estimates of national income and its various breakdowns based on a study of all continuing series of governmental statistics and other ancillary information. The estimates prepared by the NIU should be presented in the form of an annual paper analogous to the White Paper on national income in the United Kingdom.

4.3. An essential part of the work of the NIU should be to maintain contact with all agencies concerned with the collection of data to secure a continuous improvement of official statistics from the point of view of national income estimation. This work must, of course, be undertaken in collaboration with the CSO and other agencies interested in the improvement of official statistics. Also, the NIU should have an opportunity to review all new proposals for the collection of data by central agencies from the angle of national income estimation.

4.4. General lack of critical examination of statistical material on the part of the departments concerned, has, in our experience, been a serious difficulty in the work of national income estimation in this country. Definitions and concepts used by the departments are sometimes only imperfectly known to them. As a result of this, the NIU had to devote a great deal of time to these problems. With the inauguration of the CSO, it may be noted that a large part of this work has devolved on this institution and hence the burden of work in the NIU is likely to diminish in

uture. Offices devoted purely to the compilation of national income estimates are usually small in other countries, and the work in most cases is based on material largely processed elsewhere. Thus, in the United Kingdom, the preparation of the annual White Paper on national income is the responsibility of only two or three persons. It is not possible, in India, to carry on with so small a staff. The desirable course would be to start the permanent organisation with the present strength of the NIU.

4.5. The NIU was established in the Ministry of Finance and has been a part of the Department of Economic Affairs since its inception. While there is some advantage in continuing this arrangement, there are good reasons for transferring the NIU to the CSO\*. The NIU is concerned with statistical material of all varieties which flows to the CSO as a matter of routine but which does not come to the Ministry of Finance in an equally routine manner. The CSO is also responsible for the processing and critical examination of statistical information required for central needs. As the NIU is engaged in similar work in respect of data needed for national income estimation, it follows that it will be of advantage to integrate the work of the NIU with the CSO. This would avoid considerable duplication of work at a superior level and will promote overall economy. Lastly, location in the CSO would enable the NIU to present its point of view in connection with all fresh schemes for the collection of data in an effective manner and bring about a gradual improvement of the statistics required for national income estimation.

4.6. We have already referred to the need of continuing research in the field of national income. A part of such research would, of course, be done in the NIU. There is also the need of organising research in non-official institutions and universities. To quote the First Report, "analysis, historical studies, and current utilisation of national income data in the manifold fields of economic policy are absolutely essential and can best be undertaken by non-official research workers and institutions" (p. 51-52).

4.7. It is one thing to emphasise the need of research in the field and it is another thing to suggest definite steps to organise such research. We do not think that a stage has come in which we can effectively recommend the creation of special institutions in the field. We would recommend, however, the financing, in selected research institutions, of small research sections in national income work with one or two analysts supported by the necessary computational and clerical staff. In addition, we suggest the grant of scholarships and fellowships for research work in national income. It is understood of course that the receivers of such grants will submit from time to time full report on the work done, and it will be open to the Government to review these grants on the basis of the work done.

---

\* The Chairman reserved his opinion on the view expressed in the sentence.

4.8. We hope that research work on national income will be stimulated in a number of research institutions and universities as a consequence of the publication of our two reports and will be sustained by the systems of grants which we have recommended in the last section. A stage will then be reached when it will be useful for the research workers in this field to come together for exchange of views and of experience. This is the appropriate time for starting a National Income Conference. In this Conference, research workers both from private institutions and from Government departments should meet and discuss their problems and plan further lines of progress. We expect that the initiative in this matter would come from the research workers themselves. The constitution and mode of operation of the body they form need not be detailed here. However, we have no hesitation in recommending that once such a body is formed, Government should give it all possible aid.

4.9. As it may take some time before a National Income Conference of the type envisaged in the last paragraph starts to function effectively, we recommend as an interim measure the setting up of a small Advisory Committee on National Income. The main function of the Committee will be to pass under review the annual paper on national income prepared by the NIU and also other work in the field and to advise Government on the institutional grants, scholarships and fellowships recommended above.

4.10. While we have not been able to accomplish much, we feel that we have at least laid down a proper foundation for the work of national income estimation in the country. We hope that rapid strides will now be made, and we envisage that, in near future, accumulated knowledge in the field will be sufficient for planning purposes or policy decisions.

P. C. MAHALANOBIS,  
*Chairman.\**

D. R. GADGIL,  
*Member.*

V. K. R. V. RAO,  
*Member.*

M. MUKHERJEE,  
*Secretary.*

NEW DELHI,  
14th February, 1954.

---

\*In my opinion it is for the National Income Committee to indicate what new data should be collected or what improvements are necessary in the information at present available. It is the function of statisticians to consider what technical methods would be most appropriate; and it is the responsibility of Government to decide what administrative machinery or set up would be most suitable for the purpose in view.

I am signing the report subject to reservation of opinion in certain matters which fall within the sphere of responsibility of statisticians or of Government; some of the important points have been indicated by asterisks and footnotes in the text of the report. As I am making the reservations on general principles, it is not necessary to discuss the merits of each individual case; also, my reservations do not necessarily imply that my views are different from those of my colleagues in every case.

## COMPARISON OF NET NATIONAL OUTPUT AT CONSTANT PRICES

A1.1. We have attempted here to present rough estimates showing the variation in real output of the country. As the balance of factor incomes flowing out of the country is very small in relation to the national product, we have evaluated only the domestic product at constant prices and added to this the undeflated net balance of international factor income flows to get the estimate of national product at constant prices.

A1.2. For estimating the domestic product at constant prices we have not used the wholesale price or the cost of living index as a national deflator. Instead we have attempted to obtain indications of the measure of change in national real output by covering each main category of contribution to national income and estimating it by method appropriate for that category. The major difficulty attendant on this procedure has been the fact that in some sectors, estimation of output has been on the basis of average earnings and number of workers rather than on the product approach. But this is a difficulty inherent in the estimation of India's national income in the context of currently available data, and applying an index number of wholesale prices or cost of living as deflator does not solve the difficulty. Subject, therefore, to this inherent limitation, viz., that by virtue of the basis of calculation of broad components of India's national income, these do not lend themselves easily to the task of computation at constant prices, we have followed the procedure indicated below.

A1.3. In all the sectors where estimation is based on the product approach, we have evaluated physical production for the current year at the base year prices for as many items as possible. This procedure covers the sectors agriculture, animal husbandry, forestry, fishery, mining and factory establishments and thus covers no less than 55.9 per cent of the net output in 1950-51. We have, however, retained the base year cost/product ratios for lack of adequate data. This is the major source of error in this part of our estimation.

A1.4. In the small enterprises sector, in the absence of any suitable indicator of the movement of output, an index of consumer prices has been used for deflation purposes. In fact, the indicator used is the deflated value of the consumer expenditure on the products of small enterprises.

A1.5. The indicators in the sector 'communications' are the number of letters, etc., carried and the number of telegrams sent. The different indicators have been combined by making use of the ratio of base year expenditures. The railway product has been adjusted by a weighted average of ton-miles and passenger-miles the weights being the base year expenditures. For banks, we have used the number of cheque clearances and for insurance, the number of policies. For co-operative societies, the total membership is taken to give an indication of movement of real product. For the sector, 'other commerce and transport', since our estimate by product approach is based on the marketed surplus of goods and certain fixed distributive margins, the deflated value of marketed surplus is assumed to give an indication of the real movement of output.

A1.6. For professions and liberal arts, domestic service and house property, deflated consumer expenditure on these gives the appropriate indicator. However, for teaching and law, real indicators, viz., the number of pupils in the former and the number of law-suits in the latter have been used. The output of government administration has been left unadjusted on the implicit assumption that the real net output of government administration is measured by the money-wages paid.

A1.7. It will be seen from the above that estimates of real product by industrial origin are not satisfactory. Nevertheless, they do convey some indication of the changes in real output. The estimates are, therefore, presented for what they are worth in the table below.

TABLE A1.1 : VARIATION IN REAL PRODUCT IN THE INDIAN UNION.

(Base 1948-49).

items	1950-51		1949-50		1948-49	
	Rs. abja*	p.c.	Rs. abja*	p.c.	Rs. abja*	p.c.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>sectors using product approach</i>						
1. agriculture, animal husbandry and ancillary activities . . . . .	42.3	47.8	42.6	48.3	41.6	48.1
2. forestry . . . . .	0.7	0.8	0.7	0.8	0.6	0.7
3. fishery . . . . .	0.4	0.4	0.3	0.3	0.3	0.3
4. mining . . . . .	0.7	0.8	0.6	0.7	0.6	0.7
5. factory establishments . . . . .	5.4	6.1	5.4	6.1	5.5	6.4
total . . . . .	49.5	55.9	49.6	56.2	48.6	56.2
<i>other sectors</i>						
6. small enterprises . . . . .	8.7	9.8	8.6	9.8	8.7	10.0
7. communications (post, telegraph and telephone) . . . . .	0.3	0.3	0.3	0.3	0.3	0.3
8. railways . . . . .	2.0	2.3	1.9	2.2	1.7	2.0
9. organised banking and insurance . . . . .	0.6	0.7	0.6	0.7	0.5	0.6
10. other commerce and transport . . . . .	13.7	15.5	13.6	15.4	13.5	15.6
11. professions and liberal arts . . . . .	4.5	5.1	4.6	5.2	4.3	5.0
12. government services (administration) . . . . .	4.3	4.9	4.1	4.6	4.0	4.6
13. domestic service . . . . .	1.2	1.3	1.2	1.4	1.2	1.4
14. house property . . . . .	3.9	4.4	3.9	4.4	3.9	4.5
total . . . . .	39.2	44.3	38.8	44.0	38.1	44.0
net domestic product at factor cost . . . . .	88.7	100.2	88.4	100.2	86.7	100.2
net earned income from abroad . . . . .	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
net national output at factor cost = national income . . . . .	88.5	100.0	88.2	100.0	86.5	100.0

\* abja = 100 crores = 10<sup>8</sup>

AI.8 We give below a table furnishing the aggregates of net national output at current prices and at 1948-49 prices along with the corresponding per capita figures.

TABLE AI.2 : COMPARISON OF MOVEMENT OF NET NATIONAL OUTPUT AT CURRENT AND CONSTANT PRICES

	(1)	net output (Rs. abja*)		per capita net output (Rs.)	
		current prices	1948-49 prices	current prices	1948-49 prices
	(1)	(2)	(3)	(4)	(5)
1948-49	. . . . .	86.5	86.5	246.9	246.9
1949-50	. . . . .	90.1	88.2	253.9	248.6
1950-51	. . . . .	95.3	88.5	265.2	246.3

\*abja = 100 crores = 10\*

## APPENDIX TWO

### ERROR OF THE ESTIMATES

A2.1 We have already stated in chapter 2 that the overall margin of uncertainty of the estimate of net domestic product is of the order of 10 p.c. This appendix is concerned with an explanation of the procedure adopted for deriving this margin. The type of data used for national income accounting is generally not suitable for estimation of a statistically valid margin of error; and we are compelled to use more or less arbitrary methods to get some dimensional idea of the uncertainties of the sector totals and the national aggregate.

A2.2. An idea of sectoral errors can be formed in different ways:

(i) Occasionally the basic statistics used may give some idea of the sampling error involved. Thus, the figures of earnings used in the sector of small enterprises showed a coefficient of variation of the order of 50 p.c. This may give an approximate idea of the margin of uncertainty even when the data used are by no means a random sample over the universe. The estimate of working force also is subject to error an estimate of which can be made on subjective grounds. The two errors then can be combined on certain statistical assumptions. The resulting margin of uncertainty will not be entirely subjective but the subjective element will form a large component. A similar procedure is applicable in respect of the yield rates of certain crops for which proper sampling errors are available.

(ii) Subjective estimates of a number of estimators may be averaged in order to eliminate (individual) personal bias; and the difference between the different estimates would supply some information on the margin of uncertainty.

(iii) Where the estimates are prepared by two independent methods, the difference between the two estimates gives an idea of sectoral error. This procedure was followed for all sectors where two independent estimates were available.

(iv) The estimate of net value in a sector may be regarded as a function of a number of variables. Thus, the net value of agriculture depends among other things on the production of bajra, seed requirement of ragi, cost of repairs of agricultural implements, price of wheat in Madhya Pradesh, etc. For a large number of the variables we have to use the figures given by official sources. Here one can form an approximate idea of the error involved from our knowledge of the source material and also of the quality of the reporting agency. But for a number of items, we may have some discretionary latitude. Thus we can adopt one or other of two figures for depreciation. Or, for example, we can adopt different rates of deduction for seed requirement. It is possible to segregate all the items of the type in which discretion has its play. We next use different figures for a particular item and watch the effect on the aggregate net value. Usually, even where the largest variation

is assumed in the most important single constituent, the percentage change in the aggregate is small. However, when all constituents vary and assumed variations are all in the same direction, there can be an appreciable percentage change in the aggregate. By assigning the maximum variation (within reason) to all constituents we arrive at the largest margin of uncertainty of the aggregate net value. To the margins thus obtained can be added the errors ascribed to that part of the estimates over which we have no discretionary control; this part of the error is necessarily subjective. The method outlined above has been used to estimate the margins of uncertainty of sectors like agriculture, animal husbandry, etc.

(v) Where completely independent State estimates are available (e.g., for Bombay), the NIC estimates are split up and rough estimates are arrived at for the States. The difference between the NIC and the State estimates gives an idea of the margin or error involved in our computation.

A2.3. Making use of the methods indicated in the previous section we have the following margins of uncertainty for our sector estimates relating to 1948-49.

TABLE A2.1 : SECTOR MARGINS OF ERROR : 1948-49

	Per cent.
1. agriculture, animal husbandry and ancillary activities . . . . .	20.0
2. forestry . . . . .	25.0
3. fishery . . . . .	25.0
4. mining . . . . .	10.0
5. factory establishments . . . . .	10.0
6. small enterprises. . . . .	33.3
7. communications (post, telegraph and telephone) . . . . .	10.0
8. railways . . . . .	10.0
9. organised banking and insurance . . . . .	10.0
10. other commerce and transport . . . . .	33.3
11. professions and liberal arts . . . . .	33.3
12. government services (administration) . . . . .	10.0
13. domestic service . . . . .	33.3
14. house property . . . . .	33.3

A2.4. The above margins of error are then combined (on the assumption of complete independence of the errors of the sector estimates) leading to an overall percentage of about 10 for the aggregate domestic product. A positive correlation between sector errors, if any, may however, increase the margin of error of the aggregate.



APPENDIX THREE

COMPARISON OF THE PRESENT ESTIMATES FOR 1948-49  
WITH THE ESTIMATES GIVEN IN THE FIRST REPORT

A3.1. The estimates for 1948-49 given in this Report are different from the estimates for the same year given in our First Report. Broadly, there are two reasons for this. Firstly, a considerable body of new data have become available to us since the publication of the First Report. We have also made a fuller use of the material which existed even at the time of our First Report. Thus, the estimates now have a larger and more satisfactory empirical basis. The most important body of fresh data made use of pertain to the 1951 population census. Secondly, there have been, on reconsideration, changes in some underlying concepts used which in turn have led to some changes in the estimates. Thus, for example, land revenue has now been treated as a direct tax.

A3.2. We present below the two sets of estimates side by side, these indicate that the end results are not widely different in spite of a considerable change in the empirical base and also some change in the underlying concepts used.

TABLE A3.1: NATIONAL INCOME BY INDUSTRIAL ORIGIN FOR 1948-49 AS GIVEN IN THE FIRST REPORT AND IN THE FINAL REPORT.\*

items	net output	
	First Report	Final Report
(1)	(2)	(3)
<i>agriculture</i>		
1. agriculture, animal husbandry and ancillary activities . . . . .	40.7	41.6
2. forestry . . . . .	0.6	0.6
3. fishery . . . . .	0.2	0.3
4. total of agriculture . . . . .	<u>41.5</u>	<u>42.5</u>
<i>mining, manufacturing and hand trades</i>		
5. mining . . . . .	0.6	0.6
6. factory establishments . . . . .	5.8	5.5
7. small enterprises. . . . .	8.6	8.7
8. total of mining, manufacturing and hand-trades . . . . .	<u>15.0</u>	<u>14.8</u>

\*In Rs. abja, abja=100 crores=10<sup>8</sup>.

items	net output	
	First Report	Final Report
(1)	(2)	(3)
<i>commerce, transport and communication</i>		
. communications (post, telegraph and telephone)	0.3	0.3
10. railways	2.0	1.7
11. organised banking and insurance	0.5	0.5
12. other commerce and transport	14.2	13.5
13. total of commerce, transport and communications	<u>17.0</u>	<u>16.0</u>
<i>other services</i>		
14. professions and liberal arts	3.2	4.3
15. government services (administration)	4.6	4.0
16. domestic service	1.5	1.2
17. house property	4.5	3.9
18. total of other services	<u>13.8</u>	<u>13.4</u>
19. net domestic product at factor cost	87.3	86.7
20. net earned income from abroad	-0.2	-0.2
21. net national output at factor cost = national income.	87.1	86.5

## APPENDIX FOUR

### BIBLIOGRAPHY

#### *Alphabetical list of sources used*

1. Abstract of Agricultural Statistics of India, 1936-37 to 1945-46.
2. Accounts Relating to the Foreign Sea and Airborne Trade and Navigation in India, 1948-49, 1949-50, 1950-51.
3. Accounts Relating to the Inland (Rail and Riverborne) Trade of India, 1948-49.
4. Accounts Relating to the Sea-borne Trade and Navigation in India, March 1950, March 1951, March 1952, March 1953.
5. Accounts Relating to the Trade of India by Land with Foreign Countries, 1948-49.
6. Activities, Indian Posts and Telegraphs Department, 1950-51.
7. A Dictionary of the Economic Products of India: George Watt (1890).
8. Administration Report, Amritsar Improvement Trust, 1949-50.
9. Administration Report and Annual Accounts, The Commissioner for the Port of Calcutta, 1948-49, 1949-50, 1950-51.
10. Administration Report, Bombay Port Trust, 1948-49, 1949-50, 1950-51.
11. Administration Report, City Improvement Trust Board, Mysore, 1948-49 ((unpub.)).
12. Administration Report, Delhi Improvement Trust, 1948-49 ((unpub.)).
13. Administration Report, Estates and Land Management Bombay, 1948-49.
14. Administration Report, Madras City Improvement Trust, 1948-49.
15. Administration Report, Madras Port Trust, 1948-49, 1949-50, 1950-51.
16. Administration Report of the Bangalore City Improvement Trust Board, 1948-49 ((unpub.)).
17. Advisory Planning Board, 1946-47—Report of the Panel on—
  1. Coir, Rope, Cordage.
  2. Electrical Machinery and Equipment.
  3. Fine Chemicals.
  4. Glass.

5. Hosiery.
  6. Iron and Steel.
  7. Non-ferrous Metals.
  8. Paper-pulp.
  9. Plastics and Celluloids.
  10. Ready-made Clothing.
  11. Refractories and Ceramics.
  12. Silk.
  13. Soaps and Oils.
  14. Sugar, Alcohol, Food Yeast.
  15. Wool.
18. Agricultural Credit Problem in India: G. D. Agarwala ((Thesis, Agra Univ., 1949—unpub.)).
  19. Agricultural Economy of Narbada valley: M. L. Nahar ((unpub.)).
  20. Agricultural Indebtedness in Muradabad Taluka: V. M. Jakhade ((RBI Bulletin, January 1950)).
  21. Agricultural Indebtedness in Pandharpur and Sangola Talukas: V. M. Jakhade ((RBI Bulletin, January and February, 1949)).
  22. Agricultural Legislation in India, Vols. I and II, 1950 ((DESAg)).
  23. Agricultural Marketing in India: K. R. Kulkarni (1950).
  24. Agricultural Marketing in Northern India: S. A. Husain (1937).
  25. Agricultural Situation in India (Monthly), 1948, 1949, 1950, 1951, 1952.
  26. Agricultural Statistics of Assam, 1948-49.
  27. Aligarh-Harduaganj Survey, 1949-50 ((DIS-unpub.)).
  28. All India Income-tax Revenue Statistics, 1948-49, 1949-50 ((CBR)).
  29. All India Income-tax Revenue Statistics, 1950-51 ((CBR-unpub.)).
  30. Analysis of Accounts of Banking Companies, 1948, 1949, 1950, 1951 ((RBI-unpub.)).
  31. Analysis of Balance Sheets of Mining Companies, 1947 ((RBI-unpub.)).
  32. Analysis of Joint Stock Companies' Balance Sheets, 1947 ((RBI-mimeo)).
  33. An Economic Review of Madhya Bharat, 1948-49, 1949-50, 1950-51.
  34. An Economic Survey of the Madras State for 1950-51: B. Natarajan.
  35. An Enquiry into the Costs and Returns of Government Farms, Private Farms and Cultivators' Holdings in the District of Meerut: C. P. Shastri ((Thesis, Agra Univ., 1950-unpub.)).
  36. An Essay on India's National Income, 1925—29: V. K. R. V. Rao (1938).

37. An Experiment in The Estimation of National Income and the Construction of Social Accounts of India: D. N. Saxena ((Ph. D. Thesis, London Univ., 1950-unpub.)).

38. Annual Administration Report, Agra Improvement Trust, 1949-50 ((unpub.)).

39. Annual Administration Report, Allahabad Improvement Trust, 1948-49 ((unpub.)).

40. Annual Administration Report, Banaras Improvement Trust, 1949-50.

41. Annual Administration Report, Jullunder Improvement Trust, 1949-50 ((unpub.)).

42. Annual Administration Report, Ludhiana Improvement Trust, 1949-50 ((unpub.)).

43. Annual Report, Calcutta Improvement Trust, 1948-49.

44. Annual Report, Kanpur Development Board, 1948-49.

45. Annual Report, Lucknow Improvement Trust, 1948-49.

46. Annual Report, Nagpur Improvement Trust, 1948-49 ((unpub.)).

47. Annual Report of Air India International Limited, 1948, 1949, 1950, 1951.

48. Annual Report of Air India Limited, 1948, 1949, 1950, 1951.

49. Annual Report of Air Services of India Limited, 1948-49, 1949-50, 1950-51.

50. Annual Report of Deccan Airways Limited, 1948, 1949, 1950, 1951.

51. Annual Report of Ministry of Works, Production and Supply, 1949-50.

52. Annual Report of the Central Board of Directors of the Reserve Bank of India, 1948-49, 1949-50, 1950-51, 1951-52.

53. Annual Report of the Chief Inspector of Mines of India for the Year ending 31st December, 1949 (1951).

54. Annual Report on the Trend and Progress of Banking in India, 1949, 1950, 1951, 1952.

55. Annual Returns of Statistics Relating to Forest Administration in India (Provinces only) 1945-46 and 1946-47.

56. A note on The Difference between the Value of Exports as shown by the Customs and Value as shown by E.C.D.: Ramanujam and Bhatt ((RBI-unpub.)).

57. Appendices to Resurvey of Indebtedness (Mysore) 1945: S. Nagappa (1948).

58. Area and Production of Minor Crops ((DESAg-mimeo)).

59. Area and Production of Minor Crops, 1948-49 to 1950-51 (1952).

60. Area and Production of Principal Crops in India, 1948-49, 1949-50, 1950-51.

61. A Rough Survey of cottage Industries in Orissa, 1945: B. C. Pathnaik.
62. A Socio-economic Survey of Weaving Communities in Sholapur: D. R. Gadgil (1947).
63. A Statistical Analysis of the Economic Conditions of Peasants in Punjab (1950) ((PBEI)).
64. A Survey of Farm Business in Wai Taluka: D. R. Gadgil (1938).
65. A Survey of Rural Economic Conditions in Darrang: M. N. Goswami (1950).
66. A Text Book of Punjab Agriculture: W. Roberts (1947).
67. Atlas on Livestock and Livestock Products in India ((DESAg)).
68. Average Yield Per Acre of Principal Crops in India, 1937-38 to 1946-47.
69. Bihar Minimum Wage Legislation, Minimum Wages Act ((Notification, 14-3-50)).
70. Bombay Cotton Annual, 1949-50, 1950-51, 1951-52.
71. Bombay Dry Farming Research Scheme, Progress Report, 1938-39, 1939-40, 1940-41.
72. Brochure on the Marketing of Fish in India, 1948.
73. Brochure on the Marketing of Groundnuts in India.
74. Brochure on the Marketing of Milk in the Indian Union (1949).
75. Brochure on the Marketing of Wool in the Indian Union (1948).
76. Bulletin of Agricultural Prices (Weekly), 1951.
77. Bulletin on Food Statistics, (1951), (1953) ((DESAg)).
78. Bulletin on the Marketing of Sann Hemp in India, 1950.
79. Calcutta Prices Current and Money Market Report (Monthly), 1948, 1949, 1950, 1951.
80. Census of India—
  1. Vol. I (Both Parts), 1911.
  2. Vol. I (Both Parts), 1921.
  3. Vol. I (Both Parts), 1931.
  4. Vol. I (Both Parts), 1941.
  5. Cochin, Vol. XIX, Part II, 1941.
  6. Delhi, Vol. XVI, Part II, 1941.
  7. Gwalior, Vol. XX, Part II, 1941.
  8. Hyderabad, Vol. XXI, Part II, 1941.
  9. Jammu and Kashmir, Vol. XXII, 1941.
  10. Mysore, Vol. XXIII, 1941.
  11. Paper No. 1 (1952).

12. Paper No. 2 (1949).
13. Paper No. 3 (1953).
14. Rajputana and Ajmer Merwara, Vol. XXIV, 1941.
15. Tabulation Plan, 1951.
16. Travancore, Vol. XXV, 1941.
17. Uttar Pradesh, Vol. II, 1951.
  
81. Census of India's Foreign Liabilities and Assets (1950) ((RBI)).
82. Changes in the Occupational Distribution of Population: B. R. Ghate (1949).
83. Consumer Expenditure in India 1931-32 to 1940-41: R. C. Desai ((JRSS. Vol. CXI, Part IV, 1948)).
84. Coordination of Agricultural Statistics in India (1950) ((Ministry of Agriculture)).
85. Cost of Rearing Calves: N. N. Agrawala ((ASI, February, 1950)).
86. Cottage and Small-scale Industries: Mukhtar Singh (1947).
87. Cottage Industries of Bengal: J. K. Mazumdar (1927).
88. Cottage Industries of India: Chitra and Tekumalla (1948):
89. Cotton in India, 1951-52 (1953) ((DESAg)).
90. Crop Estimation in the U.P.: J. K. Pande (1945).
91. Development of Cottage Industries in Mysore upto July 1945.
92. Development of Industries in U.P. (1949).
93. District-wise Estimates of Area and Yield of Principal Crops in Part A States, 1951 ((DESAg-mimeo)).
94. Economic Conditions of Displaced Persons Settled in East Punjab: V. P. Malhotra (1949).
95. Economic Effects of Irrigation: D. R. Gadgil (1948).
96. Efficiency of Agriculture on Various Sizes of Holdings: V. Singh ((unpub.)).
97. Estimates of Area and Production of Principal Crops in India, 1951-52 (1953).
98. Estimates of Area and Yield of Principal Crops in India, 1951 ((DESAg-mimeo)).
99. Estimates of Area and Yield of Some Non-Forecast Crops, 1951 ((DESAg-mimeo)).
100. Family Budgets 1945-46 to 1947-48 of Cultivators in the East Punjab: Arjan Singh and Ajaib Singh ((PBEI)).
101. Family Budgets (1948-49) of Eighteen Cultivators in the Punjab: Arjan Singh (1950) ((PBEI)).
102. Farm Accounts in the East Punjab: Arjan Singh (1949) ((PBEI)).

103. *Farm Accounts in the Punjab: Labh Singh and Ajaib Singh* (1945) ((PBEI)).
104. *Field Crops of India: A. K. Y. N. Aiyer* (1950).
105. *Final Report: Rural Indebtedness Enquiry, West Bengal, 1946-47* ((ISI-unpub.)).
106. *Food Statistics of India* (1946) ((DESAg)).
107. *Forest Statistics of India for 1949-50* ((DESAg-mimeo)).
108. *Government of Assam, Detailed Estimates and Demands for Grants, 1950-51, 1951-52, 1952-53.*
109. *Government of Assam, Memorandum on the Budget Estimates, 1950-51, 1951-52, 1952-53.*
110. *Government of Baroda, Budget Estimates, 1948-49* ((unpub.)).
111. *Government of Bhopal, Budget Estimates, 1948-49* ((unpub.)).
112. *Government of Bihar, Finance Department, Detailed Estimates for the Post-War Reconstruction and Development Schemes, 1950-51, 1951-52.*
113. *Government of Bihar, Finance Department, Detailed Civil Budget Estimates, 1950-51, 1951-52, 1952-53.*
114. *Government of Bihar, Finance Department, Financial Statement, 1950-51, 1951-52, 1952-53.*
115. *Government of Bihar, Finance Department, Five Year Plan, 1952-53.*
116. *Government of Bilaspur, Budget Estimates, 1949-50* ((unpub.)).
117. *Government of Bombay, Budget Memorandum, 1950-51, 1951-52, 1952-53.*
118. *Government of Bombay, Civil Budget Estimates, 1950-51, 1951-52, 1952-53.*
119. *Government of Bombay, Detailed Estimates and Explanatory Memorandum of the Post-War Reconstruction and Development Programme, 1950-51, 1951-52.*
120. *Government of Himachal Pradesh, Budget Estimates, 1949-50* ((unpub.)).
121. *Government of Hyderabad, Civil Budget Estimates, 1952-53.*
122. *Government of Hyderabad, Detailed Budget, Vols. I and II, 1950-51.*
123. *Government of Hyderabad, Detailed Budget, Vols. I and II, 1359 Fasli.*
124. *Government of India, Budget of the Central Government, 1950-51, 1951-52, 1952-53.*
125. *Government of India, Budget of the Railway Revenue and Expenditure of the Central Government, 1951-52, 1952-53.*
126. *Government of India, Budget of the Railway Revenue and Expenditure of the President, 1950.*



127. Government of India, Defence Services Estimates, 1951-52, 1952-53.
128. Government of India, Demands for Grants for Expenditure of the Central Government on Railways, 1950-51, 1951-52, 1952-53.
129. Government of India, Demands for Grants for Expenditure of the Central Government on the Indian Posts and Telegraphs Department, 1950-51, 1951-52, 1952-53.
130. Government of India, Demands for Grants for the Expenditure of the Central Government (excluding Railways) 1950-51, 1951-52, 1952-53.
131. Government of India, Explanatory Memorandum on the Budget of the Central Government, 1950-51, 1951-52, 1952-53.
132. Government of India, Explanatory Memorandum on the Railway Budget, 1950-51, 1951-52.
133. Government of India, Supplementary Explanatory Memorandum on the Railway Budget, 1952-53.
134. Government of Jammu and Kashmir, Budget for S. 2005, S. 2008, S. 2009.
135. Government of Madhya Bharat, Budget Memorandum, 1950-51, 1951-52, 1952-53.
136. Government of Madhya Bharat, Detailed Estimates and Grants, 1950-51, 1951-52, 1952-53.
137. Government of Madhya Pradesh, Budget Estimates, 1950-51, 1951-52, 1952-53.
138. Government of Madhya Pradesh, Development Estimates, 1950-51, 1951-52, 1952-53.
139. Government of Madhya Pradesh, Memorandum Explanatory of the Budget, 1950-51, 1951-52, 1952-53.
140. Government of Madras, Annual Financial Statement (Budget), 1950-51, 1951-52, 1952-53.
141. Government of Madras, Demands for Grants and Detailed Budget Estimates, 1950-51, 1951-52, 1952-53.
142. Government of Madras, Detailed Budget Estimates of Revenue, 1950-51, 1951-52, 1952-53.
143. Government of Madras, Finance Department, Budget Memorandum, 1950-51, 1951-52, 1952-53.
144. Government of Manipur, Budget Estimates, 1948-49 ((unpub.)).
145. Government of Mysore, Budget Estimates, Vols. I and II, 1950-51, 1951-52, 1952-53.
146. Government of Mysore, Finance Department, Budget Memorandum, 1950-51, 1951-52, 1952-53.
147. Government of Orissa, Finance Department, Civil Budget Estimates, 1950-51, 1951-52, 1952-53.

148. Government of Orissa, Finance Department, Explanatory Memorandum on the Budget, 1950-51, 1951-52, 1952-53.
149. Government of Patiala and East Punjab States Union, Budget Estimates, 1952-53.
150. Government of Patiala and East Punjab States Union, Statement of Receipts and Disbursements, 1950-51, 1951-52.
151. Government of Punjab, Budget with Detailed Estimates of Revenue and Expenditure, 1950-51, 1951-52, 1952-53.
152. Government of Punjab, Memorandum Explanatory of the Budget, 1950-51, 1951-52, 1952-53.
153. Government of Rajasthan, Budget Estimates, 1952-53.
154. Government of Rajasthan, Detailed Estimates and Grants, 1950-51.
155. Government of Rampur, Budget Estimates, 1948-49 ((unpub.)).
156. Government of Saurashtra, Civil Budget Estimates, 1950-51, 1951-52.
157. Government of Tehri-Garhwal, Budget Estimates, 1948-49 ((unpub.)).
158. Government of Travancore-Cochin, Annual Financial Statement (Budget), 1950-51, 1951-52, 1952-53.
159. Government of Travancore-Cochin, Budget Estimates, 1950-51.
160. Government of Travancore-Cochin, Budget Memorandum, 1950-51, 1951-52, 1952-53.
161. Government of Travancore-Cochin Demands for Grants and Detailed Budget Estimates, 1952-53.
162. Government of Travancore-Cochin, Subsidiary Statement to Budget Estimates, 1951-52.
163. Government of Tripura, Budget Estimates, 1949-50 ((unpub.)).
164. Government of Uttar Pradesh, Detailed Estimates and Grants, 1950-51, 1951-52, 1952-53.
165. Government of Uttar Pradesh, Memorandum on the Budget Estimates, 1950-51, 1951-52, 1952-53.
166. Government of Vindhya Pradesh, Budget Estimates, 1949-50 ((unpub.)).
167. Government of West-Bengal, Finance Department, Civil Budget Estimates, 1950-51, 1951-52, 1952-53.
168. Government of West-Bengal, Finance Department, Explanatory Memorandum on the Budget, 1950-51, 1951-52, 1952-53.
169. Guide to Cotton Statistics (1949) ((DESAg)).
170. Guide to Jute Statistics (1950) ((DESAg)).
171. Guide to Oilseeds Statistics (1950) ((DESAg)).

172. Handbook of Indian Film Industry (1948).
173. Income and Standard of Living of Farmers: R. Singh ((unpub.)).
174. Indian Agricultural Price Statistics (1950), (1951).
175. Indian Agricultural Statistics—
  1. Vol. I, 1943-44 to 1946-47 (1951).
  2. Vol. II, 1943-44 to 1946-47 (1951).
  3. Vol. I, 1947-48 and 1948-49 (1952).
  4. Vol. II, 1947-48 and 1948-49 (1953).
  5. Vol. I, 1949-50 (1953).
  6. Vol. II, 1949-50 (1953).
176. Indian Agricultural Wages Statistics, 1950 (1952) ((DESAg)).
177. Indian Agriculture: R. D. Tiwari (1943).
178. Indian Census Economic Classification Scheme ((Office of the Registrar General-mimeo)).
179. Indian Coffee Statistics, 1948-49 and 1949-50 (1951), 1950-51 (1953).
180. Indian Cotton Industry (Annual): M. P. Gandhi, 1950, 1951.
181. Indian Cotton Statistics, 1950-51 (1953).
182. Indian Cotton Textile Industry—Centenary Volume, 1851—1950.
183. Indian Crop Calendar, 1950 ((DESAg)).
184. Indian Factory Act of 1948 (No. LXIII).
185. Indian Food Statistics (1949).
186. Indian Forest Statistics (1949), 1947-48 (1952), 1948-49 (1952).
187. Indian Journal of Agricultural Economics, March 1950.
188. Indian Jute Statistics, 1950-51 (1952).
189. Indian Labour Gazette (Monthly) 1948, 1949, 1950, 1951, 1952, 1953.
190. Indian Livestock Statistics, 1947-48 to 1949-50 (1952).
191. Indian Minerals (Quarterly), January 1948.
192. Indian Oilseeds Statistics (1950).
193. Indian Rubber Statistics, 1948 and 1949 (1952), 1950 (1953).
194. Indian Silk Industry and Its Problems: P. S. Sood (1949).
195. Indian Sugar Industry (Annual): M. P. Gandhi, 1949, 1950, 1951.
196. Indian Sugar Statistics (1950), 1950-51 (1951).
197. Indian Tea Statistics, 1948 and 1949 (1952).
198. Indian Tobacco Statistics, 1950-51 (1952).
199. Indian Trade Journal (Weekly), 1948, 1949, 1950, 1951.

200. India's Balance of Payments, 1948-51 (1953) ((RBI)).
201. India's Balance of Payments, During 1950 ((RBI Bulletin, August 1951)).
202. India's Balance of Payments, January 1949 to June 1950: S. D. Deshmukh ((RBI Bulletin, August 1950)).
203. India's Forest and the War (1948) ((DESAg)).
204. Industrial Awards in India—An Analysis (1951) ((LB)).
205. Industrial Jaipur in the Making: K. Sanjiva Rao (1945).
206. Informations about Private Buildings and Public Works in Municipal Areas ((Specially collected by NIU)).
207. International Statistical Conferences—Bulletin of the International Statistical Institute, Vol. XXXIII, Part III.
208. Journal of Film Industry, September, 1950.
209. Journal of Industry and Trade (Monthly), 1951, 1952, 1953.
210. Jute in India, 1951-52 (1953) ((DESAg)).
211. Jute Statistics (1949) ((DESAg)).
212. Labour Gazette, Bombay (Monthly), 1951, 1952.
213. Labour Investigation Committee Report (1944—46) on an Enquiry into Conditions of Labour/Labour Conditions in—
  1. Bidi, Cigar and Cigarette Industries in India: D. V. Rege.
  2. Carpet Weaving: A. Mukhtar.
  3. Cement Industry: S. R. Deshpande.
  4. Central Public Works Department: B. P. Adarkar.
  5. Chemical Industry: B. P. Adarkar.
  6. Coir Mats and Matting Industry: A. Mukhtar.
  7. Cotton Ginning and Bailing Industry: B. P. Adarkar.
  8. Cotton Mill Industry in India: S. R. Deshpande.
  9. Dockyards in India: D. V. Rege.
  10. Engineering and Minerals and Metal Industries in India: B. P. Adarkar.
  11. Glass Industry: B. P. Adarkar.
  12. Gold Mining Industry in India: S. R. Deshpande.
  13. Iron Ore Industry: B. P. Adarkar.
  14. Jute Mills Industry in India: S. R. Deshpande.
  15. Manganese Mining Industry in India: D. V. Rege.
  16. Match Industry in India: S. R. Deshpande.
  17. Mica Mining and Mica Manufacturing Industry: B. P. Adarkar.
  18. Mineral Oil Industry in India: D. V. Rege.

19. Non-Gazetted Railway Services: A. Mukhtar.
20. Paper Mill Industry in India: S. R. Deshpande.
21. Plantations in India: D. V. Rege.
22. Ports: S. R. Deshpande.
23. Potteries: A. Mukhtar.
24. Principal Municipalities in India: S. R. Deshpande.
25. Printing Presses: A. Mukhtar.
26. Rice Mills: B. P. Adarkar.
27. Rickshaw Pullers: A. Mukhtar.
28. Shellac Industry: B. P. Adarkar.
29. Silk Industry in India: S. R. Deshpande.
30. Sugar Factories: A. Mukhtar.
31. Tanneries and Leather Goods Factories: A. Mukhtar.
32. Tram and Bus Services: A. Mukhtar.
33. Woollen Textile Industry in India: S. R. Deshpande.
214. Let Figures Tell, 1949 ((Directorate of Cottage Industries, U.P.)).
215. Life and Labour in a Gujrat Village: J. B. Shukla (1937).
216. Livestock Census of India, 1919-20, 1925, 1930, 1935, 1940, 1945.
217. Livestock, Poultry and Agricultural Machinery and Implements in India, 1951 ((DESAg-mimeo)).
218. Livestock Statistics (1950) ((DESAg)).
219. Madhya Bharat—An Economic Review, 1948-49, 1949-50, 1950-51.
220. Madhya Bharat Key Ankdey (Hindi Monthly), 1950, 1951.
221. Memorandum on Gold Thread Industry of Surat ((The Surat Chamber of Commerce-mimeo)).
222. Monthly Abstract of Statistics, 1948, 1949, 1950, 1951, 1952, 1953.
223. Monthly Bulletin of Statistics, Madhya Bharat, 1949.
224. Monthly Statement of Wholesale Prices, 1948, 1949, 1950.
225. Monthly Statistical Digest, West Bengal, 1948, 1949, 1950, 1951.
226. Monthly Statistics of the Production of Selected Industries of India, 1948, 1949, 1950, 1951, 1952, 1953.
227. National Income Estimates of the Indian Union, 1948-49 ((Ministry of Commerce-mimeo)).
228. National Income of British India and Union Provinces, 1945-46 ((Ministry of Commerce)).
229. National Income of British India for 1931-32; V. K. R. V. Rao (1940).
230. National Income of the Indian Union Provinces, 1946-47 ((Ministry of Commerce)).

## 231. National Planning Committee Series on—

1. Rural and Cottage Industries.
2. Trade
3. Transport.

232. Note on Measurement of Labour Force of India from Census Data: B. N. Sarkar ((ISI-unpub.)).

233. Oilseeds Trade in India: J. C. Bahl (1938).

234. Planning the Country Side: R. K. Mukerjee (1946).

235. Poona: A. Socio-Economic Survey: D. R. Gadgil (1945).

236. Population and Food Planning in India: Baljit Singh (1947).

237. Post-war Balance of Payments of India: K. N. Raj ((RBI Bulletin, July 1949)).

238. Price Bulletin: Government of West Bengal, 1948, 1949, 1950.

239. Price of Cereals in the U.P.: How They are Determined at Various Stages: J. K. Pande.

240. Problems Encountered in Preparing Balance of Payments Estimates in ECAFE Countries: India ((RBI-mimeo)).

241. Problems of Livestock in Poona District with Special Reference to Marketing: M. G. Joshi ((Gokhale Institute of Politics and Economics-unpub.)).

242. Production of Major Foodgrains in the Punjab, 1939-40 to 1948-49 (1950) ((Economic and Statistical Organisation, Government of Punjab)).

243. Programmes of Industrial Development, 1951-56 ((Planning Commission)).

244. Progress Report on Scheme for Crop-Cutting Survey on Paddy in Kolaba District, Bombay, 1944-45 ((ICAR)).

245. Progress Report on Scheme for Crop-Cutting Survey on Paddy in Raipur District, C. P. and Berar, 1944-45 ((ICAR)).

246. Progress Report on Scheme for Crop-Cutting Survey on Paddy in Tanjore District, Madras, 1944-45 ((ICAR)).

247. Provisional Totals—General Population and Displaced Persons, 1951 Census ((Office of the Registrar General-mimeo)).

248. Public Electricity Supply, All India Statistics, 1949, 1950, 1951.

249. Public Electricity Supply, All India Statistics, 1950, 1951—Particulars of Individual Undertaking.

250. Quarterly Bulletin of Statistics—Bihar, 1950, 1951.

251. Quarterly Bulletin of Statistics, Orissa, 1949, 1950, 1951.

252. Recent Trends in India's Balance of Payments: K. N. Raj ((RBI Bulletin, November, 1949)).

253. Records of the Geological Survey of India, Vol. LXXVI (1942).

254. Report and Accounts of Bharat Airways Limited for the Year ended 30th June 1948, 30th June 1949, December 1950, December 1951.

255. Report by the Railway Board on Indian Railways, Vols. I and II, 1948-49, 1949-50, 1950-51, 1951-52.

256. Report of the Advisory Planning Board (1947).

257. Report of the Air Transport Inquiry Committee (1950).

258. Report of the Bidi Industry Committee, C.P. and Berar (1941).

259. Report of the Bidi Readjustment Committee (1947) ((Government of Madhya Pradesh)).

260. Report of the Bombay Economic and Industrial Survey Committee, 1938—40, Vol. 1 (1940) and Vol. II (1941).

261. Report of the Cattle Preservation and Development Committee (1948) ((Ministry of Agriculture)).

262. Report of the Committee Appointed by the Government of Bombay under the Minimum Wages Act, 1948 in respect of Employment in—

1. Oil Mills.
2. Public Motor Transport.
3. Rice, Flour or Dal Mills.
4. Road Construction and Building Operations.
5. Stone Breaking or Stone Crushing.
6. Tanneries and Leather Manufactory.

263. Report of the Committee Appointed by the Government of West Bengal under the Minimum Wages Act, 1948 in respect of Employment in—

1. Flour Mills.
2. Rice Mills.
3. Tanneries and Leather Manufactories.

264. Report of the Committee Appointed to Enquire into the Wages and Conditions of Work of Sweepers Employed by Local Bodies (1947) ((Government of Uttar Pradesh)).

265. Report of the Committee of Experts for Building Works (1952) ((Ministry of Works, Production and Supply)).

266. Report of the Committee on Fixation of Minimum Wages of Agricultural Labour, 1950 ((Ministry of Labour-mimeo, Confidential)).

267. Report of the Court of Enquiry Appointed to Enquire into the Conditions of Labour in Timber and Saw Mills in Malabar and South Kanara Districts: K. A. Mukandan (1947).

268. Report of the Court of Enquiry into Bidi, Cigar, Snuff, Tobacco Curing and Tanning Industries: B. V. N. Naidu (1947).

269. Report of the Court of Enquiry into Labour Conditions in the Handloom Industry: B. V. N. Naidu (1948).

270. Report of the Directors and Statement of Accounts of Airways (India) Limited for the Period ended 31st December, 1948, 1949, 1950, 1951.
271. Report of the Directors of Dalmia Jain Airways for the Year ending June 1948, 1949.
272. Report of the Directors of Indian National Airways Limited and the Accounts for the Year ended 30th June 1948, 1949, 1950, 1951.
273. Report of the Economist for Enquiry into Rural Indebtedness: B. V. N. Naidu (1946).
274. Report of the Fact-Finding Committee (Handloom and Mills) (1947).
275. Report of the Film Enquiry Committee (1951).
276. Report of the Fish Sub-Committee of the Policy Committee on Agriculture, Forestry and Fisheries.
277. Report of the Foodgrains Investigation Committee (1950).
278. Report of the Health Survey and Development Committee, Vols. I to IV (1946).
279. Report of the Indian Tariff Board on the—
1. Alloy, Tool and Special Steels Industry.
  2. Cotton Textile Industry.
  3. Glass Industry.
  4. Gold Thread Industry.
  5. Heavy Chemical Industry.
  6. Iron and Steel Industry.
  7. Match Making Industry.
  8. Oil Industry.
  9. Paper and Paper Pulp Industries.
  10. Plywood and Teacheests Industry.
  11. Sugar Industry.
  12. Woollen Textile Industry.
280. Report of the Industrial Survey Committee, M.P. (1942).
281. Report of the Local Finance Enquiry Committee (1951).
282. Report of the Minimum Wages Committee appointed by the Government of Punjab under the Minimum Wages Act, 1948 in respect of employment in—
1. Inferior Employees under any Local Authority.
  2. Oil Mills.
  3. Rice, Flour or Dal Mills.
  4. Road Construction and Building Operations and Stone Breaking or Stone Crushing.
  5. Shawl Weaving Establishment.
  6. Tanneries and Leather Manufactory.



283. Report of the Posts and Telegraphs Expert Committee (1951).
284. Report of the Provincial Banking Enquiry Committee, 1929-30—
1. Assam.
  2. Bengal.
  3. Bombay.
  4. Central Provinces.
  5. Madras.
  6. Punjab.
  7. United Provinces.
285. Report on an Enquiry into Family Budgets of Industrial Workers:  
S. R. Deshpande, at—
1. Ahmedabad.
  2. Ajmer.
  3. Akola.
  4. Berhampur.
  5. Bombay.
  6. Calcutta.
  7. Cuttack.
  8. Dehri-on-Sone.
  9. Delhi.
  10. Gauhati.
  11. Howrah and Bally.
  12. Jalgaon.
  13. Jamshedpur.
  14. Jharia (Colliery Workers).
  15. Jubbulpore.
  16. Kharagpur.
  17. Ludhiana.
  18. Monghyr and Jamalpur.
  19. Sholapur.
  20. Silchar.
  21. Tinsukia.
286. Report on an Enquiry into Labour Conditions in the Brassware Industry of Moradabad: R. D. Pant (1945).
287. Report on an Enquiry into the Conditions of Agricultural Workers in Village—
1. Archikarahali in Mysore State (1951).
  2. Brindabanpur in West Bengal (1951).
  3. Dorwan in Bihar (1951).
  4. Khalipur in U.P. (1952).
  5. Khapri in Madhya Pradesh (1952).
  6. Khuntuni in Orissa (1952).
  7. Magurpara in Assam (1952).
  8. Vandalur in Madras (1951).

288. Report on an Enquiry into the Family Budgets of Middle Class Employees of the Central Government (1949).
289. Report on an Enquiry into Wages, Hours of Work and Conditions of Employment in the Retail Trade of Some Towns of the Bombay Presidency (1936).
290. Report on Crop Cutting Experimental Survey for Estimating the Outturn of Wheat, Punjab, 1943-44; P. V. Sukhatme (1948).
291. Report on Crop Cutting Survey on Kanni Crop of Paddy in Travancore-Cochin, 1950 (1951), 1951 (1952), 1952 (1953).
292. Report on Crop Cutting Survey on Kumbhan Crop of Paddy in Travancore-Cochin, 1951 (1951), 1952 (1952).
293. Report on Currency and Finance for the Year 1948-49, 1949-50, 1950-51, 1951-52, 1952-53.
294. Report on Handloom Weaving Industry in the Bombay Presidency: S. V. Telang (1932).
295. Report on Random Sample Survey for Estimating the Outturn of (ICAR)—
1. Paddy in C.P. and Berar, 1945-46.
  2. Paddy in Madras, 1946-47.
  3. Wheat in Punjab, 1945.
296. Report on the Cost of Production of Crops in the Principal Sugarcane and Cotton Tracts of India (ICAR)—
1. Bengal, Vol. VI, 1934-35 to 1936-37.
  2. Bihar, Vol. V, 1934-35 to 1936-37.
  3. Bombay, Vol. II, 1933-34 to 1935-36.
  4. C.P. and Berar, Vol. VII, 1933-34 to 1935-36.
  5. Madras, Vol. IX, 1933-34 to 1935-36.
  6. Mysore, Hyderabad and Baroda, Vol. IX, 1933-34 to 1935-36.
  7. Punjab, Vol. I, 1933-34 to 1935-36.
  8. Supplement to Bengal, 1934-35 to 1936-37.
  9. Supplement to Bombay, 1933-34 to 1935-36.
  10. Supplement to C. P. and Berar, 1933-34 to 1935-36.
  11. Supplement to Mysore, Hyderabad and Baroda, 1933-34 to 1935-36.
  12. Supplement to U.P., 1933-34 to 1935-36.
  13. U.P., Vol. III, 1933-34 to 1935-36.
297. Report on the Crop Cutting Survey by the Random Sampling Method for Estimating the Outturn of (ICAR)—
1. Paddy in the United Provinces, 1945-46 (1947).
  2. Rice in the Central Provinces and Berar, 1946-47 (1948).
  3. Wheat in the Central Provinces and Berar, 1947 (1948).
  4. Wheat in the Punjab, 1945-46 (1947).

298. Report on the Development of the Cattle and Dairy Industries of India: N. C. Wright (1952—Reprint).
299. Report on the Marketing of—
1. Bananas in India (1945).
  2. Barley in India (1945).
  3. Cashewnuts in India (1944).
  4. Castorseed in India (1950).
  5. Cattle in India.
  6. Chillies in India ((DMI-mimeo)).
  7. Citrus Fruits in India (1930).
  8. Coconuts and Coconut Products in India (1944).
  9. Coffee in India and Burma (1940).
  10. Eggs in India and Burma (1938).
  11. Fish in the Indian Union (1951).
  12. Ghee and Other Milk Products in India (1948).
  13. Gram in India (1944).
  14. Grapes in India and Burma (1941).
  15. Groundnuts in India and Burma (1941).
  16. Hides in India and Burma (1943).
  17. Hides in the Indian Union (1951).
  18. Linseed in India (1938).
  19. Maize and Millets in India ((DMI-mimeo)).
  20. Meat in the Indian Union ((DMI-mimeo)).
  21. Milk in the Indian Union (1950).
  22. Potatoes in India and Burma (1941).
  23. Pulses in India ((DMI-mimeo)).
  24. Rapeseed and Mustard in India (1950).
  25. Rice in India and Burma (1942).
  26. Rice-Revised ((DMI-mimeo)).
  27. Sheep and Goats in India.
  28. Skins in India and Burma (1943).
  29. Skins in India ((DMI-unpub.)).
  30. Sugar in India and Burma (1943).
  31. Tobacco in India and Burma (1938).
  32. Wheat in India (1937).
  33. Wool in India (1937).
300. Report on the Poona Schedules of the National Sample Survey (1950-51): V. M. Dandekar (1953).
301. Report on the Production and Marketing of Cardamom in India (1947)
302. Report on the Sample Survey for Estimating the Socio-economic Characteristics of Displaced Persons Migrating from Eastern Pakistan to West Bengal (1951).

303. Report on the Scheme for Crop Cutting Experimental Survey on Paddy in the Bombay Province, 1945-46 ((ICAR)).
304. Report on the Scheme for Crop Cutting Technique, Bihar Crop Survey—Paddy, 1945: P. V. Sukhatme.
305. Report on the Season and Crops of the Punjab for the Agricultural Year ending 30th June, 1947 (1950), 1949 (1951), 1950 (1952).
306. Report on the Sholapur Handloom Weavers' Enquiry Committee (1948) ((Government of Bombay)).
307. Report on the Survey of Minor Ports in India: S. Nanjudiah (1952).
308. Report on the Work of the Indian Posts and Telegraphs Department, 1948-49.
309. Reserve Bank of India, Bulletin (Monthly), 1948, 1949, 1950, 1951, 1952, 1953.
310. Resurvey of Indebtedness of Selected Villages, 1945: S. Nagappa (1946).
311. Review of the Sugar Industry of India for the Year 1948-49 ((Supplement to ASI, July 1951)), 1949-50 ((ASI, July 1952)).
312. Rural Economic Enquiries in the Hyderabad State, 1949-51: S. K. Iyenger (1951).
313. Rural Economy of Gujrat: M. B. Desai (1948).
314. Rural Problems in Madras—Monograph: S. Y. Krishnaswamy (1947).
315. Rural Wages in the United Provinces: S. C. Chaturvedi (1947).
316. Sample Survey for the Estimation of Yield of Food Crops (1950) ((ICAR)).
317. Sample Survey of Manufacturing Industries, 1949 and 1950 ((DIS-unpub.)).
318. Season and Crop Report of Bihar for the Year 1945-46 (1948), 1947-48 (1951).
319. Season and Crop Report of Bombay Province for the year 1945-46 (1948), 1946-47 (1949), 1947-48 (1950), 1948-49 (1951).
320. Season and Crop Report of Madhya Pradesh for the year ending 31st May 1950 (1952).
321. Season and Crop Report of Orissa for the year 1945-46 (1947), 1947-48 (1949).
322. Season and Crop Report of the Central Provinces and Berar for the Year ending the 31st May 1945 (1952), 1946 (1952), 1947 (1952), 1948 (1950), 1949 (1951).
323. Season and Crop Report of the Madras State for the Agricultural Year 1948-49 (1950), 1949-50 (1951).
324. Season and Crop Report of Uttar Pradesh for the Years 1948-49 1949-50 (Hindi).

325. Season and Crop Reports of West Bengal for the Years 1946-47, 1947-48 and 1948-49 (1952).

326. Social and Economic Survey of Refugee Camps in East Punjab: Om Parkash (1949).

327. Some Facts about our Life and Living (1947) ((Department of Economics and Statistics, U.P.)).

328. Some South Indian Villages, A Resurvey: P. J. Thomas and K. C. Ramakrishnan (1940).

329. Standard of Living in India and Pakistan, R. C. Desai (1953).

330. Statement of Agricultural Prices (Weekly), 1948, 1949, 1950.

331. Statistical Abstract for 1946-47 (1949).

332. Statistical Abstract, India, 1949 (1950), 1950 (1952).

333. Statistical Abstract of Mysore (Including Supplement) from 1923-24 to 1947-48 (1951).

334. Statistical Abstract, West Bengal, 1948 (1950).

335. Statistical Atlas of Bombay State, 1950.

336. Statistical Statements Relating to the Co-operative Movements in India, 1948-49, 1949-50, 1950-51.

337. Statistical Supplement to Government Gazette, Assam 1948, 1949, 1950, 1951.

338. Statistical Supplement to Government Gazette, Bombay State, 1948, 1949, 1950, 1951.

339. Statistical Supplement to Government Gazette, Madhya Pradesh, 1950, 1951.

340. Statistical Supplement to Government Gazette, Madras, 1948, 1949, 1950, 1951.

341. Statistical Supplement to Government Gazette, Orissa, 1948, 1949, 1950, 1951.

342. Statistical Supplement to Government Gazette, Punjab, 1948, 1949, 1950, 1951.

343. Statistical Tables Relating to Banks in India, 1948, 1949, 1950, 1951, 1952.

344. Statistics of Madhya Bharat (Quarterly), 1950, 1951.

345. Statistics of Joint Stock Companies, 1947-48 and 1948-49 ((CBR—unpub.)).

346. Supplement to the Report on the Marketing of Wheat in India (1946).

347. Survey of Hosiery Industry in the United Provinces, 1939 (1946).

348. Tad Gud Khabar (Monthly), 1948, 1949, 1950, 1951.

349. Tea in India, 1950 (1953) ((DESAg)).

350. Technological Possibilities of Agricultural Developments in India: W. Burns (1944).

351. Textile Stores and Machinery Directory and Reference Book, 1952-53 ((Association of Merchants and Manufacturers of Textiles Stores and Machinery (India))).
352. The Bulletin of the Bureau of Economics and Statistics, Bombay (Quarterly), 1948, 1949, 1950, 1951, 1952, 1953.
353. The Economic Life of Hyderabad (1937) ((All India Economic Conference)).
354. The Economic Prosperity of the United Provinces: G. S. Tiwari (1951).
355. The Indian and Pakistan Year Book, 1950, 1951.
356. The Indian Central Banking Enquiry Committee (Report), Vol. I to IV (1931).
357. The Indian Farm Economy: D. S. Chauhan ((Ph.D. Thesis, Agra Univ., 1947-unpub.)).
358. The Indian Insurance Year Book, 1948, 1949, 1950, 1951, 1952.
359. The Indian Labour Year Book, 1947-48, 1948-49, 1949-50, 1950-51.
360. The Monthly Bulletin of Statistics, U.P., 1948, 1949, 1950, 1951.
361. The Monthly Digest of Economics and Statistics, Madras, 1950, 1951.
362. The National Sample Survey; General Report No. 1 on the First Round, October 1950-March 1951 (1952).
363. The Wealth of India—A Dictionary of Indian Raw Materials and Industrial Products—
1. Industrial Products, Vol. I, Part I (1948).
  2. Industrial Products, Vol. II, Part I (1951).
  3. Raw Materials, Vol. II, Part I (1950).
364. Third Census of Manufactures, Vols. I and II, 1948.
365. Trade Statistics Relating to the Maritime States in Kathiawar and the State of Travancore (Monthly), 1948, 1949.
366. U.P. Labour Enquiry Committee Report, 1946—48, Vols. I and II (1948).
367. U.P. Zamindari Abolition Committee Report, Vols. I and II (1948).
368. Wealth and Taxable Capacity of India: Shah and Khambata (1924).
369. Wealth and Welfare in the Province of Madras: B. Natarajan (1949).
370. Weekly Bulletin of Statistics, 1951, 1952, 1953.
371. Whither Agriculture in India: Baljit Singh (1945).
372. Wholesale Prices of Foodgrains (Weekly), 1948, 1949, 1950, 1951.
373. Y-Sample Tables, 1941 ((ISI-unpub.)).

---

NOTE.—Figures within brackets refer to the date of publication. The source in certain ambiguous cases is given in double brackets. The fact that the item referred to is unpublished or mimeographed is also noted therein.

*A sectorwise classification of the serial numbers in the alphabetical list*

(Figures with asterisk stand for sources used for reference only)

*I. Agriculture, animal husbandry and ancillary activities:*

1\*, 4, 7, 18, 19, 22\*, 24—26, 33\*, 34\*, 35, 57—60, 63—66, 67\*, 68\*, 70, 71\*, 73—79, 80. 5—12, 80. 14, 80. 16, 84\*, 85, 89\* 90, 93, 95—99, 101—104, 106, 108—124, 130, 131, 134—168, 169\*—171\*, 173—177, 179, 181, 183, 185\*, 187, 188, 190, 192, 193, 195—199, 210, 211, 215—218, 220, 223—225, 236, 238, 239, 241, 242, 244\*—246\*, 250, 251, 261, 277, 290\*—292\*, 295\*, 296, 297\*, 298, 299. 1—10, 299. 12—33, 300, 301, 303\*—305\*, 311, 312, 316, 318—325, 327, 330, 332—335, 337—342, 344, 346\*, 348—350, 352, 354, 357, 360—362, 364, 367\*, 369, 371, 372

*II. Forestry :*

55\*, 107, 175\*, 186, 203\*, 364

*III. Fishery :*

25, 72\*, 276, 288\*, 299.II, 300\*.

*IV. Mining :*

4, 31, 53\*, 191\*, 213.12, 213.15, 213.17, 213.18, 253\*, 256, 332.

*V. Factory Establishments:*

17\*, 32\*, 70, 180\*, 189, 195\*, 208, 213.3\*, 213.5\*, 213.7\*, 213.8\*, 213.10\*, 213.11\*, 213.13\*, 213.14\*, 213.16\*, 213.18\*, 213.20\*, 213.26\*, 213.29\*—31\*, 213.33\*, 226, 248, 249, 256, 275, 279, 311\*, 317, 345, 359, 364.

*VI. Small Enterprises :*

2\*, 27, 33\*, 62, 70\*, 75, 80, 86—88, 91, 92, 176, 178, 180\*, 182, 184\*, 189, 193\*, 194\*, 205, 207, 209, 212—214, 219\*, 221, 222, 234\*, 235, 243, 258—260, 262, 263, 267\*, 268, 269\*, 273, 274, 280, 282, 286, 294\*, 300\*, 302, 306, 312—315, 327, 347, 351—354, 359, 362, 366\*, 369, 373.

*VII. Communications :*

6, 110, 120—124, 129, 134, 136, 149, 154, 159, 162, 283, 308.

*VIII. Railways :*

9, 10, 15, 110, 111, 122—126, 128, 132, 133, 136, 149, 154, 159, 162, 213.19\*, 255.

*IX. Organised Banking and Insurance:*

30, 52, 54, 293\*, 309\*, 332, 336, 343, 358.

*X. Other Commerce and Transport :*

2—5, 18, 20, 21, 23, 24.—28, 29, 47—50, 62\*, 73\*, 80, 94,—05, 176, 187, 189, 204, 213.3—5, 213.7, 213.9\*, 213.11, 213.13, 213.16, 213.20—22, 213.24, 213.28, 213.31, 213.32, 222, 231, 233, 235, 254, 257, 268, 270—273, 275, 277, 279, 284\*, 287, 289, 299—302, 307, 309, 314, 326, 332, 336, 346, 352, 354, 355, 356\*, 357, 359, 362, 365, 367\*.

*XI. Professions and Liberal Arts :*

28, 29, 61, 65\*, 69, 80, 83, 100, 103, 189, 212, 213.1, 213.3—5, 213.7, 213.8, 213.10, 213.11, 213.13, 213.14, 213.16, 213.18, 213.24, 213.27, 213.29, 213.33, 222, 235, 278, 285\*, 302, 326, 328, 352, 354.

XII. *Government Services (Administration) :*

8-16, 38—46, 51\*, 108—124, 127, 130, 131, 134—168, 213. 24\*, 281, 332.

XIII. *Domestic Service :*

80, 178, 189, 207, 213.1, 213.3, 213.4, 213.7, 213.8, 213.10, 213.11, 213.13, 213.14, 214.14, 213. 17, 213. 23, 213.24, 213.27, 213.29, 213.32, 213.33, 235, 264\*, 281\*, 287—289, 302, 352, 354, 366\*.

XIV. *House Property :*

18, 22, 80.1—4, 80.12, 80.13. 206, 265\*, 266, 281, 288, 300\*, 310\*, 332, 362, 370.

XV. *Balance of Payments and Net Income from Abroad :*

3\*, 4\*, 56\*, 81\*, 200—202, 237\*, 240\*, 252\*.

XVI. *Working Propulation :*

6, 80, 82\*, 172, 178\*, 179, 193, 197, 222, 232, 247, 255, 275\*, 308, 332, 359, 364, 373.

*General Reference :*

36, 37, 227—230, 329, 331, 363, 368.



## GLOSSARY OF ABBREVIATIONS

AgSt	Agricultural Statistics of India
ASI	Agricultural Situation in India
CBR	Central Board of Revenue
CIF	Chief Inspector of Factories
CIM	Chief Inspector of Mines
CM	Census of Manufactures
CPWD	Central Public Works Department
CSO	Central Statistical Organisation
DESAg	Directorate of Economics and Statistics, Ministry of Food and Agriculture
DGCIS	Department of Commercial Intelligence and Statistics
DIS	Directorate of Industrial Statistics
DMI	Directorate of Marketing and Inspection
EACom	Economic Adviser—Ministry of Commerce and Industry
ECD	Exchange Control Department—Reserve Bank of India
GSI	Geological Survey of India
IARI	Indian Agricultural Research Institute—Pusa
IBM	Indian Bureau of Mines
ICAR	Indian Council of Agricultural Research
ICEC	Indian Census Economic Classification Scheme, 1951 Census
ILG	Indian Labour Gazette
ILYb	Indian Labour Year Book
ISI	Indian Statistical Institute—Calcutta
LB	Labour Bureau
LC	Livestock Census
LS	Livestock Statistics
mimeo	mimeographed
MR	Marketing Report
NIC	National Income Committee
NIU	National Income Unit
NSS	National Sample Survey
PBEI	Punjab Board of Economic Inquiry
PEPSU	Patiala and East Punjab States Union
PWD	Public Works Department
RBI	Reserve Bank of India
SA	Statistical Abstract
SSMI	Sample Survey of Manufacturing Industries
unpub	unpublished

## GLOSSARY OF INDIAN WORDS USED

abja—10<sup>9</sup>.

anna—one-sixteenth of a rupee.

arhar—a pulse.

bajra—a millet.

bunder—port.

chhana—a milk product.

chit-fund—small private loan enterprise.

chowkidar—village policeman.

crore—10<sup>7</sup>.

dahi—curd.

dai—midwife.

dhaincha—a green manure.

desi—indigenous.

devaswam-fund—temple management fund.

rasli—Hyderabad State year, 1st October to 30th September.

ghee—classified butter.

gur—raw sugar.

hakim—Muslim village doctor.

jowar—a millet.

khoa—a milk product.

khurchan—a milk product.

lakh—10<sup>6</sup>.

lassi—butter-milk.

mandi—primary produce market.

mung—a pulse.

nidhis—a class of indigenous banking enterprise.

panchayat—village council.

patwari—village revenue officer.

ragi—a millet.

rupee—Indian unit of currency.

sanai—a green manure.

taluqa—a revenue sub-division.

tehsil—a revenue sub-division.

vaid—Hindu village doctor.

## AREA AND POPULATION OF THE INDIAN UNION

(1)	area (square miles)	population-- 1951 census (thousands)
(1)	(2)	(3)
INDIAN UNION*	12,69,640	3,61,239
<i>class A States</i>		
Assam . . . . .	85,012	9,044
Bihar . . . . .	70,330	40,226
Bombay . . . . .	1,11,434	35,956
Madhya Pradesh . . . . .	1,30,272	21,248
Madras . . . . .	1,27,790	57,016
Orissa . . . . .	60,136	14,646
Punjab . . . . .	37,378	12,641
Uttar Pradesh . . . . .	1,13,409	63,216
West Bengal . . . . .	30,775	24,810
<i>class B States</i>		
Hyderabad . . . . .	82,168	18,655
Jammu and Kashmir . . . . .	92,760	4,410
Madhya Bharat . . . . .	46,478	7,954
Mysore . . . . .	29,489	5,075
PEPSU . . . . .	10,078	3,494
Rajasthan . . . . .	1,30,207	15,291
Saurashtra . . . . .	21,451	4,137
Travancore-Cochin . . . . .	9,144	9,280
<i>class C States</i>		
Ajmer . . . . .	2,417	693
Bhopal . . . . .	6,878	836
Bilaspur . . . . .	453	126
Coorg . . . . .	1,586	229
Delhi . . . . .	578	1,744
Himachal Pradesh . . . . .	10,451	983
Kutch . . . . .	16,724	568
Manipur . . . . .	8,628	578
Tripura . . . . .	4,032	639
Vindhya Pradesh . . . . .	23,603	3,575
<i>class D States</i>		
Andaman and Nicobar Islands . . . . .	3,215	31
other States		
Sikkim . . . . .	2,744	138

\*Excluding tribal areas of Assam.