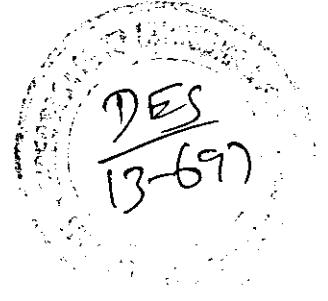


Government of Kerala

**A Brochure on
Gross Fixed Capital
Formation in Kerala
1989-90 & 1990-91**

**Department of Economics & Statistics
Thiruvananthapuram
1999**

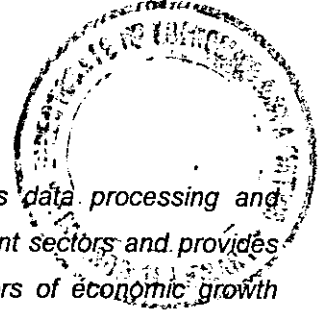
Government of Kerala



**Report on
Gross Fixed Capital Formation in
Kerala
(1989-90 and 1990-91)**

**State Income Division
Department of Economics & Statistics
Thiruvananthapuram
1999**

Preface



Directorate of Economics and Statistics through its data processing and analysis helps to monitor the growth of the economy in different sectors and provides database for various economic indicators. Of these indicators of economic growth capital formation holds an important place as it reflects to that part of the State's total expenditure which is not consumed but set apart for further production process.

Gross Fixed Capital Formation which constitutes a major part of capital formation is measured largely by the total value of a producer's acquisition, less disposals of tangible or intangible assets that are used repeatedly or continuously in other process of production for more than one year. These include buildings, civil works, machinery, etc. and changes in stock of raw materials, finished goods and semi finished goods.

The present report, being the third in the series is an attempt to study and analyse the growth of Gross Fixed Capital Formation in both the private and public sectors. For the State Government sectors the data is based on the economic classification of the State Budget and provides comprehensive analysis of the fixed capital formation in the sector as administrative departments and departmental enterprises are dealt with separately. For the private sector the annual reports collected from the concerns have been used.

The efforts of Smt. Sobhana Pillai, Research Officer, Smt. Janaky, Compiler under the supervision and guidance of Sri E. Shamsuddin, Assistant Director and Smt. M. S. Valsala, Additional Director are acknowledged. The services rendered by Sri M.M. Vijayakumaran Nadar of the Computer Division in connection with the DTP work of this report is also appreciated.

Suggestions for the improvement of the report are most welcome.

U. Thomas Sleeba
Director

Thiruvananthapuram,
13th March 2000.

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Gross Fixed Capital Information at State Level

Chapter 1

Methodology

1.1 Introduction

Development of an economy depends up on the factors like capital accumulation, investment criteria, capital absorption capacity, stability and values and institutions. Out of these capital formation is the pivot around which the economic development revolves. It measures the growth potential created in the current period and therefore, it is considered as a major economic aggregate like Net National Product. Final consumption expenditure, saving, etc. which are generally used for measuring changes in economy.

1.2 The Concept, Scope and Coverage

Domestic capital formation is defined as that part of country/state's current output and imports which is not consumed or exported during the accounting period but is set aside as addition to its stock of capital goods. Total capital formation can be broadly classified in to Fixed Capital Formation and change in stock of raw materials and semi finished and finished goods.

Gross Capital Formation represents gross value of goods which are added to domestic capital stocks of the nation. It comprises both expenditure on the acquisition of fixed assets and the value of physical change in stocks. Gross Fixed Capital Formation consists of outlays of industries and producers of Government services, private non profit services to households in addition to their fixed assets minus their net sales. These include (1) durable goods (2) improvement and alteration of durable good which significantly extend the expected life time or productivity of the assets (3) new construction and major improvements which extent its life period (4) reclamation and extension of timber, tracts, mines, plantations and similar other agricultural holdings (5) breeding stocks, animals, dairy cattle and the like.

Non reproducible tangible assets like land, mineral deposits, timber tracts etc. are not included in capital formation but dealers margins, service charges and other transfer costs in regard to transactions in such assets form part of capital formation. Outlays on newly constructed dwellings by household and industries and expenditure on major improvement and alterations of residential buildings form part of fixed capital formation while the purchase of durable goods by households is not treated as capital formation.

Gross Fixed Capital Formation include expenditure on land clearance, irrigation works, plantation and cultivation of new timber tracts, new fruit and sap bearing trees, vines, etc. which yield products after a number of years. After such plantations and cultivations become productive, further outlays in respect of the cultivation is considered as intermediate consumption. The clearance and afforestation of timber tracts and forests are considered land improvement activity and are included in gross fixed capital formation.

The capital expenditure on soil conservation activity by the public sector for conservation of forests is included under capital formation. Similar soil conservation activity in the private sector is considered as own account construction, which is classified under the construction industry.

Expenditure on current repairs and maintenance incurred for keeping the fixed assets in proper working order does not form part of capital formation. Expenditure on alterations and additions or replacements of the parts of fixed assets which have an expected life time of one year or more and involve substantial outlays and also extend the life of fixed assets or increase their productivity is considered as capital expenditure.

1.3 The significance of capital formation

The capital formation of a country is considered as a major determinant of its economic growth. The growth of capital formation is thus an index of economic development. It is the capital formation that leads to the full utilization of available resources, which leads to increase in the size of national output, income and employment and thereby increase the standard of living of the people. It is capital formation that leads to proper exploitation of the natural resources and establishment of different types of industries resulting in increased level of the income and employment. This enables increase in the economic welfare of the society. Thus capital formation can rightly be considered as the index of economic development in an under developed or developing country.

1.4 Estimation: the approach

The commodities which constitute fixed capital formation is valued at purchasers price which covers all costs connected with the acquisition and installation of the items of assets. Indirect outlays for acquisition of the assets in the form of advertising etc. are excluded. In the case of fixed assets produced on, own account, these are valued at production cost including imputed values in respect of own account labour employed. Estimates of gross fixed capital formation can be prepared (1) by type of assets, (2) by industry of use.

(1) Type of assets:-

Type of assets consists of (a) construction (b) machinery and equipment and change in stock. The commodity flow approach is followed for construction works undertaken with the use of specified construction materials and also for machinery of equipment.

- (a) Construction – The value at site in the accounting year of five basic construction input materials viz. cement, iron and steel products, timber and round wood, bricks and tiles and permanent fixtures and fittings are considered under ‘construction’.
- (b) Machinery and equipment – The various items of machinery and equipment are classified into
 - (i) Capital goods
 - (ii) Parts of capital goods
 - (iii) Partly capital goods
 - (iv) Part of partly capital goods.

The total of (I) and specified percentage of (ii) to (iv) on the basis of Annual Survey of Industries data are taken as capital formation.

The estimates of gross domestic fixed capital formation in construction and machinery and equipment are aggregated to arrive at the estimates of gross domestic fixed capital formation by type of assets.

However, due to paucity of data estimation of gross fixed capital formation by type of assets is attempted only in the public (State Government) sector in this report.

(ii) Industry of use

The expenditure approach is primarily followed for estimation of gross fixed capital formation (GFCF) by industry of use. The whole economy is classified by user industries broadly in terms of the industrial classification used for measurement of net domestic product. Each industrial activity is further divided into public and private sectors wherever relevant. The private sector under each activity has been further divided into organised and unorganised sectors whenever data are available. The public sector is divided into administrative departments of Central and State Government and enterprises, both departmental and non-departmental.

1.5 Agriculture including Livestock

(a) Agriculture proper

The expenditure on Gross Fixed Capital Formation in State Government Departmental enterprises have been culled out from the State Government budget document

and of the non-departmental enterprises from the balance sheet or annual reports of the enterprises.

The source of information of Gross Fixed Capital Formation in the household sector of Agriculture is based on the expenditure on farm business available in AIDIS. The base year estimates of gross fixed capital formation of the reporting households in respect of rural and urban sectors are obtained separately from this report.

The census provides the number of rural and urban household separately. Using the geometric growth rate, the number of households during the year 1989-90 and 1990-91 have been estimated.

The per household gross fixed capital formation for the base year has been arrived at by using the total gross fixed capital formation and the number of households as estimated from the survey results separately for rural and urban sectors.

By making use of the per household gross fixed capital formation, thus obtained and the projected number of households from the census results gross fixed capital formation in Farm Business has been estimated both for rural and urban sectors for the years 1989-90 and 1990-91 at constant prices. The Gross Fixed Capital Formation at current prices has been obtained by using the index of average daily wages of unskilled labours in construction sector.

The Gross Fixed Capital Formation at current prices thus obtained for rural and urban sectors have been finally aggregated to obtain the Gross Fixed Capital Formation from farm business.

(b) Livestock

For the estimation, the value of breeding stock, drought animals, diary cattle etc which form part of capital formation has been added. As the annual data on livestock population are not available, the different categories of livestock as given in the quinquennial livestock census of 1987 and 1996 have been considered and the number of each category estimated using geometric growth rates.

The data regarding bullocks and bulls over three years not in use, cows over 3 years not in use, female goats of one year and above not in milk, etc. are excluded from the purview of capital formation. The cattle, male over three years, cows in milk, buffaloes, male over three years she-buffaloes in milk, goats – female of one year and over in milk, males one year and over (breeding) as provided in the census have been considered to form part of capital formation of livestock component. The increment of each category every year is estimated

and then evaluated using the average price of the category each year. Only 4% of the male goats have been considered to be the capital formation component of this category

1.6 Forestry and Logging

The Government of Kerala have taken over the private forests of the State by an Act. Therefore, the capital expenditure on forest preservation, extension etc. of the state is the contribution of the Public sector only. The capital formation component of this sub sector is obtained from the analysis of the State Government Budgets.

1.7 Fishing

The livestock census of 1987 and 1996 provide information on the number of different categories of mechanised and non-mechanised boats and other major fishing equipments like fishing gears and catamarans engaged in fishing activity. The number of fishing boats and equipments during the years 1989-90 and 1990-91 has been estimated using the geometric growth rate of the inter census years and then the increment during each year is worked out. The average price of the different categories of boats and equipments each year collected from the State department of fisheries have been used to evaluate the increment of boats each year. The gross fixed capital formation in fisheries sector is thus obtained at current prices.

1.8 Mining and quarrying

There is no departmental enterprises coming under this sub sector in Kerala

In the case of non-departmental commercial undertakings, the Kerala metals and Minerals is considered in public sector. The unorganised sector is estimated on the basis of NSS 34th round.

1.9 Manufacturing (Registered)

Annual Survey of Industries provide on value of stock and addition to the fixed capital during the accounting years. The details of capital stock separately for (i) Land (ii) Improvement to land and other construction (iii) building (iv) plant and machinery (v) Transport equipment (vi) tools and other fixed assets and (vii) assets under construction/installation are available. Expenditure on land does not form part of capital formation and hence excluded from the estimates.

1.10 Manufacturing (un-registered)

Those manufacturing enterprises which do not come under the purview of the Indian Factories Act 1948, are considered under this sub sector. The 34th round of NSS provides data on fixed assets of manufacture and repair services in the unregistered sector. The whole of the unregistered sector of the manufacturing industry has been brought under the coverage

of the survey. The data obtained in the report of NSS 34th round has been used to estimate the contribution to gross fixed capital formation from this sub-sector. The addition to fixed assets per enterprise and the estimated number of enterprises both rural and urban have been considered and the combined estimates of Gross Fixed Capital Formation arrived at for the base year.

The base year estimates are moved to later years using appropriate indices.

1.11 Electricity, Gas and Water supply

Electricity generation and distribution in Kerala is mainly the activity of Kerala State Electricity Board categorised under NDC. The annual accounts of the KSEB have been analysed and the Gross Fixed Capital Formation estimated. Since the private sectors are covered under Annual Survey of Industries. Separate estimates have not been prepared under this head.

The Cochin Oil Refineries is engaged in the manufacture LPG. This has been considered to assess the capital formation of this sub-sector – Gas.

The estimates of Gross Fixed Capital Formation from water supply relating to public sector is prepared on the basis of State Government Budget up to 1985-85. From 1985-86 onwards the schemes under this head are implemented by the water authority of Kerala and hence no details are available in the Budget Documents. No data have been received from water authority also and hence not incorporated in this issue.

1.12 Construction

The fixed capital formation in the construction sector comprises if net addition to machinery and equipment, tools and implements of construction enterprises. The annual balance sheets/accounts have been analysed and estimates of Gross Fixed Capital Formation obtained. The construction expenditure culled out from the State Government Budget has also been taken into account.

The estimates from private sector is limited to unorganised sector based on NSS 34th round results due to non-availability of data from other sources.

1.13 Transport, Storage and Communication

a) *Railways*

This being a supra-regional sector, the Central Statistical Organisation is to prepare the State-wise estimates of capital formation and supply the same to the states for incorporation in the State level estimates as recommended by the Regional Accounts Committee. The data have been supplied by Central Statistical Organisation.

b) Transport by other means & storage

The State Government Budget provides information capital expenditure on machanised

Transport – Road and Water

KSRTC the Kerala Inland Navigation Corporation and Cochin Port Trust have been analysed.

The enterprise survey 1983-84 conducted by Central Statistical Organisation provides information on mechanised and non-mechanised transport in private sector. The base year estimates of Gross Fixed Capital Formation is moved for the latest years using the growth rate observed to the Gross Domestic Product of the respective sector.

In the public sector there is no departmental enterprises in storage. The Ware Housing Corporation and Food Corporation of India are non-departmental enterprises of this sector. The annual accounts of these enterprises have been analysed to obtain the capital formation component of storage.

c) Communication

The Government of India demands for grant for the Indian posts and telegraph department and Ministry of Communications is the main source of information. The activities covered under this sector are Posts and Telegraphs, Telecommunications and Overseas Communication service. The details of Capital expenditure at the national level for posts and telegraph and Telecommunication are presented in the budget relating to Posts and Telegraph Department. As per the recommendation of the Regional Accounts Committee, the Central Statistical Organisation is to prepare the State-wise estimates of fixed capital formation. The Central Statistical Organisation has supplied the estimates.

1.14 Trade, Hotels and Restaurants

The annual accounts of the non-departmental commercial undertakings engaged in trading activities are analysed to obtain the Gross Fixed Capital Formation of these enterprises.

The private sector estimates for the base year are prepared on the basis of data available in NSS 34th round, Directory Establishment Survey 1985-86. For Trade and Enterprises Survey on Hotels and Restaurants 1983-84. The base year estimates are moved to later years with the help of gross value added in the sector.

1.15 Banking and Insurance

The State-wise estimates of Capital formation in respect of Nationalised Banks, Life Insurance Corporation of India, Reserve Bank of India, etc. is to be provided by Central Statistical Organisation as recommended by the Regional Accounts Committee. The details have been obtained from the Central Statistical Organisation and incorporated.

1.16 Real Estate, Ownership of Dwellings

Gross Fixed Capital Formation under residential buildings based on AIDIS 1981-82 has been used for preparing the base year estimates under this head. The base year estimates are moved to later years using the building cost index numbers.

1.17 Public Administration

This sector consists of the capital expenditure of Central Government administration in respect of the State, State Government administration and local bodies, corporations, municipalities and panchayats.

The estimates of capital expenditure in respect of Central Government administration at the State level is provided by Central Statistical Organisation.

The State Government budgets have been analysed to obtain the capital expenditure of State Government administration.

The capital outlay of corporation and municipalities have not been covered in this report as its complete analysis is pending. The construction expenditure and expenditure on machinery are the components of Gross Fixed Capital Formation considered under this sector.

1.18 Other Services

The expenditure of State Government under this sector is taken from the State Government budget. The non-departmental commercial undertakings coming under this sector is also considered.

The Gross Fixed Capital Formation in private sectors is computed for the base year as per the enterprise survey, 1983-84 on service sector. The base year estimates are moved forward using the indices of GDF in the respective sector.

Chapter 2

Analytical Interpretation

The estimates of Gross Fixed Capital Formation for the year 1989-90 and 1990-91 are analysed industry wise below. Table 1 presents the Gross Fixed Capital Formation by industry of use.

The total capital formation estimates show an upward trend during the period, real estate of ownership of dwellings form major portion of the total Gross Fixed Capital Formation during the period under report ranging from 38.74% to 40.01%. This is because of the fact that the estimates of fixed capital formation of residential building have been included under this item. The contribution of agriculture sector for the year 1989-90 is 10% and 1990-91 is 9%. The contribution of manufacturing industries varies from 22.67% to 25.81%. The percentage distribution of Gross Fixed Capital Formation is given in Table 2.

The table 3 presents the Gross Fixed Capital Formation both in public and private sectors. During the period under report the contribution of both the public and private sectors show an upward trend. The share of public sector is more in electricity, gas and water supply, transport, storage and communication. For contribution of public sector is nil in Fishing sector and the contribution of private sector is nil in banking and insurance sector.

Gross Fixed Capital Formation in State Government sector

The State Government sector consists of Administrative Departments and departmental enterprises.

Administrative Departments

The Gross Fixed Capital Formation of Administrative Departments are obtained from the State Government Budgets. The expenditure approach is followed for estimation of capital formation from Government budgets. For the estimation of gross capital formation, the items such as construction, machinery and equipments, net purchase of second hand assets and change in stock etc. were considered.

Departmental Enterprises:

Gross Capital Formation under this sector is estimated by analysing the annual accounts of the departmental enterprises including State Government budgets.

Gross Capital Formation by type of Assets

The Gross Capital Formation of Administrative Departments and Departmental enterprises by type of assets are detailed in table IV. It reveals that the estimates of Gross Capital Formation for the year 1989-90 is 22.3 crores. A slight increase can be seen in the estimates of Gross Fixed Capital Formation for the year 1990-91 and in the estimates of Gross Fixed Capital Formation of Administrative Department. The estimates of Gross Fixed Capital Formation of Departmental enterprises decreased from 9.3 crores to 8.0 crores. The main component of Administrative Department is construction, which relates to buildings, roads and bridges and other constructions.

Gross Capital Formation - by Industry of use

The Gross Capital Formation of Administrative Department and Departmental enterprises is analysed by 'industry of use' in table 5.

The expenditure under various heads of the State Government Administrative Departments and Departmental enterprises are classified under Agriculture, Forestry, Fishing, Manufacturing, Construction, Water Supply, Other Transport, Other Services and Public Administration.

Table V reveals that the contribution of public administration ranks first place with 47.18% in 1989-90 and 52.13% in 1990-91. The share of Agriculture sector declined from 38.37% to 32.53%.

Gross Capital Formation by type of Institutions

Administrative Departments and departmental enterprises constitute the State Government sector. The contribution of these sectors is analysed by type of institution in Table IV.

Table IV indicates that the major portion of Gross Fixed Capital Formation is contributed by the Administrative Departments during the years of study. It varies from 58.17% to 64.22%.

Conclusion

The estimation of Gross Fixed Capital Formation in the State covered mainly private and public sectors. Even though the coverage is greater in public sector, private sector occupies the major share of the total Gross Capital Formation.

In State Government sector there is a gradual increase of Gross Capital Formation.

Detailed statements of Gross Fixed Capital Formation relating to all-important activities are presented in annexure to this report.

I. Gross Fixed Capital Formation – by industry of use at current prices

(Rs.in lakhs)

Sl. No.	Industrial Classification	1989-90	1990-91
1	2	3	4
1	Agriculture	26880	28145
2	Forestry and logging	44	55
3	Fishing	782	1187
4	Mining and quarrying	495	718
5	Manufacturing	60916	80664
6	Electricity, Gas & Water supply	18612	19466
7	Construction	948	97
8	Transport, Storage & Communication	23289	25661
9	Trade, Hotels & Restaurants	2305	2905
10	Banking and Insurance	3348	3652
11	Real estate and ownership of dwellings	107507	121102
12	Public administration	16563	19133
13	Other services	7036	9792
	Total	268725	312577

II. Gross Fixed Capital Formation – by industry of use at current prices (Percentage Distribution)

Sl. No.	Industrial Classification	1989-90	1990-91
1	2	3	4
1	Agriculture	10.00	9.00
2	Forestry and logging	0.02	0.02
3	Fishing	0.29	0.38
4	Mining and quarrying	0.18	0.23
5	Manufacturing	22.67	25.81
6	Electricity, Gas & Water supply	6.93	6.23
7	Construction	0.35	0.03
8	Transport, Storage & Communication	8.67	8.21
9	Trade, Hotels & Restaurants	0.86	0.93
10	Banking and Insurance	1.24	1.17
11	Real estate and ownership of dwellings	40.01	38.74
12	Public administration	6.16	6.12
13	Other services	2.62	3.13
	Total	100	100

III. Gross Fixed Capital Formation by "Industry of Use" in Public and Private Sectors

(Rs.in lakhs)

Sl. No.	Sectors	1989-90			1990-91		
		Public	Private	Total	Public	Private	Total
1	2	3	4	5	6	7	8
1	Agriculture	8617	18263	26880	7632	20513	28145
2	Forestry and logging	44	-	44	55	-	55
3	Fishing	-	782	782	-	1187	1187
4	Mining and quarrying	112	383	495	173	545	718
5	Manufacturing	12725	48191	60916	20353	60311	80664
6	Electricity, Gas & Water supply	18428	184	18612	19085	381	19466
7	Construction	893	55	948	34	63	97
8	Transport, Storage & Communication	21292	1997	23289	23372	2289	25661
9	Trade, Hotels & Restaurants	5	2300	2305	238	2667	2905
10	Banking and Insurance	3348	-	3348	3652	-	3652
11	Real estate and ownership of dwellings	-	107507	107507	-	121102	121102
12	Public administration	16563	-	16563	19133	-	19133
13	Other services	1738	5298	7036	3020	6772	9792
	Total	83765	184960	268725	96747	215830	312577

IV. Gross Fixed Capital Formation in State Government sector by 'Type of Institutions' and by 'Type of Assets' at Current Prices

(Rs. In Lakhs)

Year/ Type of Institution	Construction				Machinery and equipment			Net purchase of seehand physical assets	Gross fixed capital formation	Change in stock	Gross capital formation
	Building	Roads & Bridges	Other construction	Total construction (col.2-4)	Plant & Machinery	Transport equipment	Total machinery equipment (6+7)				
1	2	3	4	5	6	7	8	9	10	11	12
1989-90											
GA	3170	410	6769	10349	1452	446	1898	110	12356	629	12986
DE	178	3	8643	8824	345	71	416	-	9240	99	9339
Total	3348	413	15412	19173	1797	517	2314	110	21597	728	22325
1990-91											
GA	4322	5085	2695	12102	1091	1280	2371	118	14591	(-) 120	14471
DE	114	4	7287	7405	294	84	378	-	7783	279	8062
Total	4436	5089	9982	19507	1385	1364	2749	118	22374	159	22533

GA-Government Administration

DE-Departmental enterprises

V. Gross Capital Formation in State Government Sectors in Kerala by Industry of use at current prices

(Rs. In lakhs)

Sl. No.	Industrial Classification	1989-90		1990-91	
		Accounts	Percentage	Accounts	Percentage
1	2	3	4	5	6
1	Agriculture	8565	38.37	7331	32.53
2	Forestry and logging	44	0.20	49	0.22
3	Manufacturing (3.1+3.2)	56	0.25	81	0.36
	3.1 Printing press	56	0.25	81	0.36
	3.2 Milk supply	-	-	-	-
4	Construction	852	3.82	-75	-0.33
5	Water supply	-	-	-	-
6	Other Transport	674	3.01	601	2.67
	6.1 Port, Pilotage, Light house & Light ship	237	1.28	261	1.16
	6.2 Civil Aviation	-	-	-	-
	6.3 Others	387	1.73	340	1.51
7	Other services	1601	7.17	2798	12.42
	a) Education	739	3.31	1954	8.67
	b) Medical	663	2.97	844	3.75
	c) Family Welfare	-	-	-	-
	d) Public Health & Sanitation	199	0.89	-	-
8	Public Administration	10533	47.18	11748	52.13
	Total	22325	100.0	22533	100.0

VI. Gross Fixed Capital Formation in State Government sectors in Kerala by type of Institution

(Rs. In lakhs)

Sl. No.	Type of Institution	Year	
		1989-90 accounts	1990-91 accounts
1	2	3	4
1	General Administrative Department	12986	14471
2	Departmental Enterprises	9339	8062
	Total Gross Capital formation	22325	22533

Annexure I

Gross Fixed Capital Formation 'by industry of use and by type of institution detailed statement (at current prices)

Sl. No	Industrial Classification	(Rs. In lakhs)						Total	
		Public	Private	Household	Total	Public	Private		Household
1	2	3	4	5	6	7	8	9	10
1	Agriculture								
	1. Government administration and Departmental Enterprises	8565	-	-	8565	7331	-	-	733
	2. NDCW	52	-	-	52	301	-	-	301
	3. Household sector	-	-	18396	18396	-	-	20549	20549
	4. Livestock	-	-133	-	-133	-	-36	-	-36
	Sub Total	8617	(-) 133	18396	26880	7632	(-) 36	20549	28145
2	Forestry and logging								
	1. Government administration and Departmental Enterprises	44	-	-	44	49	-	-	49
	2. NDCW	-	-	-	-	6	-	-	6
	Sub Total	44	-	-	44	55	-	-	55
3	Fishing								
	Mechanised, non mechanised and other major fishing equipments	-	782	-	782	-	1187	-	1187
	Sub Total	-	782	-	782	-	1187	-	1187

1	2	3	4	5	6	7	8	9	10
4	Mining and quarrying								
	a) NDCW	112	-	-	112	173	-	-	173
	b) Private sector	-	383	-	383	-	545	-	545
	Sub Total	112	383	-	495	173	545	-	718
5	Manufacturing								
	a) Registered factories ASI	-	47028	-	47028	-	58510	-	58510
	b) Government sectors	56	-	-	56	81	-	-	81
	c) NDCW	12669	-	-	125669	20272	-	-	20272
	d) Private sectors (unregistered)	-	1163	-	1163	-	1801	-	1801
	Sub Total	12725	48191	-	60916	20353	60311	-	80664
6	Electricity, Gas & Water supply								
	a) Electricity	10272	184	-	10456	10810	381	-	11191
	b) Gas	8156	-	-	8156	8275	-	-	8275
	c) Water supply	-	-	-	-	-	-	-	-
	Sub Total	18428	184	-	18612	19085	381	-	19466
7	Construction								
	a) State Government sector	852	-	-	852	-75	-	-	-75
	b) NDCW	41	-	-	41	109	-	-	109
	c) Private sector	-	55	-	55	-	63	-	63
	Sub total	893	55	-	948	34	63	-	97
8	Transport, Storage & Communication								
	a) Railways	3313	-	-	3313	3313	-	-	3313
	b) Transport by other means and storage								
	c) Communication	15127	-	-	15127	15127	-	-	15127
	d) NDCW	2178	-	-	2178	4331	-	-	4331
	e) State Government sector by type of Industry of use	674	-	-	674	601	-	-	601
	f) Private sector	-	1997	-	1997	-	2289	-	2289
	Sub Total	21292	1997	-	23289	23372	2289	-	25661

1	2	3	4	5	6	7	8	9	10
9	Trade, Hotels & Restaurants								
	a) NDCW	5	-	-	5	238	-	-	238
	b) Private sector	-	2300	-	2300	-	2667	-	2667
	Sub Total	5	2300	-	2305	238	2667	-	2905
10	Banking and Insurance	3348	-	-	3348	3652	-	-	3652
	Sub Total	3348	-	-	3348	3652	-	-	3652
11	Real estate and ownership of dwellings	-	107507	-	107507	-	121102	-	121102
	Sub Total	-	107507	-	107507	-	121102	-	121102
12	Public administration								
	a) Government administration, State Government sector and Departmental enterprises	12986	-	-	12986	14471	-	-	14471
	b) Central Government Administration	3577	-	-	3577	4662	-	-	4662
	Sub Total	16563	-	-	16563	19133	-	-	19133
13	Other services								
	a) Government administration, State Government sector and Departmental enterprises	1601	-	-	1601	2798	-	-	2798
	b) NDCW	137	-	-	137	222	-	-	222
	c) Private Sector	-	5298	-	5298	-	6772	-	6772
	Sub Total	1738	5298	-	7036	3020	6772	-	9792
	Grand Total	83765	166564	18396	268725	96747	195281	20549	312577

**Gross Capital Formation of State Government Administration
Departments in Kerala by Type of Assets at current prices**

(Rs. In lakhs)

Sl.No.	Type of Assets	1989-90 (Accounts)	1990-91 (Accounts)
1	2	3	4
1	Construction (a+b+c)	10349	12102
2	a) Buildings	3170	4322
	b) Roads & Buildings	410	5085
	c) Other Construction	6769	2695
II	Machinery and equipments (a+b)	1898	2371
	a) Plant and machinery	1452	1091
	b) Transport equipment	446	1280
III	Net purchase of second physical assets	110	118
IV	Gross Fixed Capital Formation (I+II+III)	12357	14591
V	Charge in stock	629	(-) 120
VI	Gross Capital Formation (IV+V)	12986	14471

Annexure II B

**Gross Capital Formation of State Government Administrative
Departments in Kerala by 'Industry of Use' at current prices**

Sl. No.	Industry of use	1989-90	1990-91
I	2	3	4
1	Construction	852	(-) 75
2	Water supply	-	-
3	Other services	1601	2798
	a) Education	739	1954
	b) Medical	663	844
	c) Family Welfare	-	-
	d) Public health and sanitation	199	-
	Total I to 3	2453	2723
4	Public Administration	10533	11748
	Total	12986	14471

Annexure III A

**Gross Capital Formation of State Government Administrative
Departments in Kerala by 'Type of Assets and current prices**

Sl. No.	Industry of use	1989-90	1990-91
1	2	3	4
	a) Construction	8824	7405
	b) Building	178	114
	c) Roads and Bridges	3	4
II	Machinery and equipment	416	378
	a) Plant and Machinery	345	294
	b) Transport equipment	71	84
III	Net purchase of second hand physical assets	-	-
IV	Gross Capital Formation (I+II+III)	9240	7783
V	Change in Stock	99	279
VI	Gross Capital Formation (IV+V)	9339	8062

Annexure III B

**Gross Capital Formation of State Government Departmental Enterprises
in Kerala by 'Industry of use' at current prices**

Sl. No.	Industry of use	1989-90	1990-91
1	2	3	4
1	Agriculture	8565	7331
2	Forestry	44	49
3	Manufacturing (3.1+3.2)	56	81
	3.1 Printing press	56	81
	3.2 Milk supply	-	-
4	Construction	-	-
5	Electricity	-	-
6	Railway	-	-
7	Communication	-	-
8	Other Transport (8.1+8.2+8.3)	674	601
	8.1 Port & pilotage houses & light ships	287	261
	8.2 Civil aviation	-	-
	8.3 Others	387	340
9	Trade, Hotel & Restaurants	-	-
10	Banking & Insurance	-	-
	Total	9339	8062

Annexure IV A

**Gross Capital Formation in Non Departmental Commercial undertakings
in Kerala (Category-wise) 1989-90**

(Rs.in '000)

Sl.No	Category	Land development	Building	Capital work in progress	Other construction	Expenditure during construction	Transport equipments	Machinery and office equipments	Total
1	2	3	4	5	6	7	8	9	10
I.	Agriculture	-	3142	-	947	-	449	612	5150
II.	Forestry & Logging	-	-	-	-	-	-	23	23
III.	Manufacturing (Registered)	-	136228	122927	36588	-	6069	965106	1266918
IV.	Mining and quarrying	-	2850	794	29	-	38	7554	11189
V.	Trade, Hotel & Restaurants	-	70	-	121	-	5	296	492
VI.	Others services	121	6432	79	1526	2627	275	2607	13667
VII.	Financial	-	-	1247	9	-	1	31	1288
VIII.	Transport by other means & storage	-	-	218723	(-) 914	-	-	-	217809
IX.	Construction	134	(-)8224	-	640	9714	423	1439	4126
	Total	255	140498	343770	38946	12341	7184	977668	1520662

Annexure IV B

**Gross Capital Formation in Non Departmental Commercial undertakings
in Kerala (Category-wise) 1989-90**

(Rs.in '000)

Sl.No	Category	Land development	Building	Capital work in progress	Other construction	Expenditure during construction	Transport equipments	Machinery and office equipments	Total
1	2	3	4	5	6	7	8	9	10
X.	Agriculture	-	6316	2118	9541	-	3427	8738	30140
XI.	Forestry & Logging	-	-	-	2	-	365	259	626
XII.	Manufacturing (Registered)	44438	355117	3218450	187223	5633	53387	4599919	2027267
XIII.	Mining and quarrying	-	1871	4704	35	-	322	10369	17301
XIV.	Trade, Hotel & Restaurants	3092	11548	1715	3406	4015	2186	1242	23774
XV.	Others services	940	12323	4488	83	-	-	4383	22217
XVI.	Financial	1354	9566	284	3451	(-) 1	1961	10939	27554
XVII.	Transport by other means & storage	698	15882	277509	2759	-	135145	1104	433097
XVIII.	Construction	-	9-03	4742	-	-	197	5925	10861
	Total	50522	412620	2926320	206500	9647	196990	4642878	2592837

Gross Fixed Capital Formation in Agriculture at current prices**(Household sector)**

(Rs.in lakhs)

Sl.No.	Years	Rural	Urban	Total
1	2	3	4	5
1	1989-90	14311	4085	18396
2	1990-91	16124	4425	20549

Annexure VI

Gross Fixed Capital Formation in Livestock at current prices

(Rs.in '000)

Sl.No.	Category	1989-90	1990-91
1	2	3	4
1	Cattle male over 3 years	-7564	-3884
2	Cows in milk	9985	14910
4	Baffalow male over 3 years	-10442	-10095
5	Goat female 1 year over milk	1452	1944
6	Goat male 1 year over	1997	2316
	Total	-13291	-3562

Annexure VII

Gross Fixed Capital Formation at current prices – Fisheries Sector

(Rs.in '000)

Sl.No.	Type of Boats	Year	
		1989-90	1990-91
1	2	3	4
	Mechanised Boats		
1	Gill Neters	18184	21810
2	Travelers	109571	138182
3	Liners	17994	25299
4	Others	18220	21582
	Non Mechanised Boats		
1	Beach scene boats	-	-
2	Plank built boats	-1143	1224
3	Dugsoat canoes	79895	82091
4	Catamarams	3480	3561
5	Others	1277	1319
	Total	78174	118678
	Rs. In lakhs	782	1187

Annexure VIII

Gross Fixed Capital Formation Registered Manufacturing Sector

(Rs.in lakhs)

Sl.No.	Components	Year	
		1989-90	1990-91
1	2	3	4
1	Improvement to land	165	956
2	Building	1696	543
3	Plant and Machinery	18777	25110
4	Transport equipments	1620	1208
5	Tools and other fixed assets	341	461
6	Assets under construction	7652	14856
7	Net addition (1 to 6)	30251	42048
8	Depreciation	16961	16843
9	Total (7 + 8)	47212	58891
10	Less Water supply	184	381
11	Gross Fixed Capital Formation	47028	58510

Annexure IX

Statement of Capital Expenditure of Kerala State Electricity Board

(additions each year)

(Rs.in '000)

Sl. No	Year	Land	Build-ing	Capital work in progress	Expenditure during construction and other construction	Transport equipment	Machinery & other office equipment	Total
1	2	3	4	5	6	7	8	9
1	1989-90	10396	22429	648804	303702	4086	37761	1027178
2	1990-91	893	38184	722805	219903	10683	88579	1081047

Annexure X

Addition to Fixed Assets of Cochin Refineries

(Rs.in 'lakhs)

Sl.No	Year	Land development	Build-ing	Capital work in progress	Other construction
1	2	3	4	5	6
1	1989-90	81359	35169	14271	-
2	1990-91	119713	23595	32339	72

Sl.No	Year	Expenditure during construction	Transport and equipment	Machinery and other office equipment	Total
1	2	7	8	9	10
1	1989-90	-	15536	697763	815556
2	1990-91	-	2205	649586	827510

Annexure XI

Gross Fixed Capital Formation – Ownership of Dwellings (Residential Buildings) at current Prices

(Rs.in 'lakhs)

Sl.No	Year	Rural	Urban	Total
1	2	3	4	5
1	1989-90	78156	29351	107507
2	1990-91	87548	33554	121102

Annexure XII

Estimates of Gross Fixed Capital Formation from Supra-regional sectors and Central Government Administration at current Prices

(Rs.in 'lakhs)

Sl.No	Sectors	Year	
		1989-90	1990-91
1	2	3	4
1	Railways	3313	3313
2	Communication	15127	15127
3	Banking and Insurance	3348	3652
4	Central Government Administration	3577	4662

Annexure XIII

Industry wise Gross Fixed Capital Formation - Private sectors at current Prices

(Rs.in lakhs)

Sl.No	Sectors	Year	
		1989-90	1990-91
1	2	3	4
1	Mining and quarrying	383	545
2	Manufacturing (unregistered)	1163	1801
3	Construction	55	63
4	Transport and storage	1997	2289
5	Trade, hotel and restaurants	2300	2667
6	Other services	5298	6772

