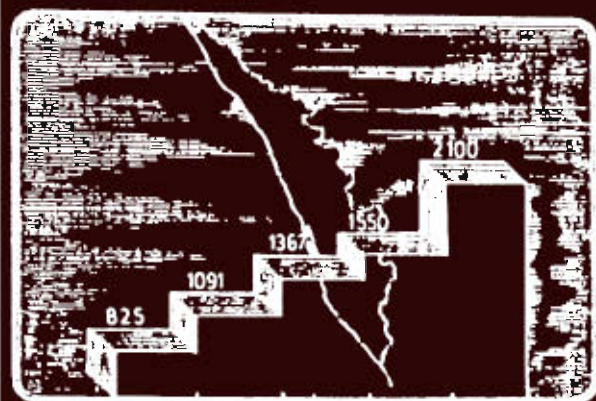


ECONOMIC REVIEW

1995



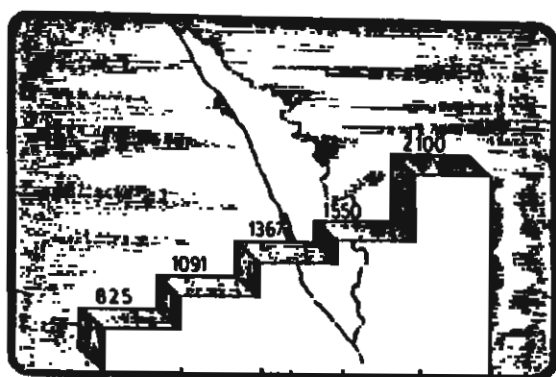
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CHAPTER 1

GENERAL REVIEW

Developments in the National Economy

Since the middle of 1991, the Government of India initiated a number of reform measures in a wide range of areas to move the economy into an incentive regime more conducive to rapid economic development. These measures, which were necessitated by the macro economic crisis which came in the early nineties, have fundamentally altered the country's development strategy. Four years ago, India's internal and external imbalances had reached crisis proportions. The rate of economic growth had fallen to less than one per cent. Inflation rate had touched a level as high as 17 per cent. Foreign exchange reserves had touched a low level of 1 million U.S. dollars sufficient to finance only a fortnight's import requirements of the country. Foreign investment was negligible. The trade regime imposed pervasive licensing requirements on imports of virtually all commodities. The financial sector was dominated by public banks which had little commercial discretion in allocating their lending. Financial markets were also highly controlled. The public sector units, many of which were operating within a protectionist framework, continued to function inefficiently incurring substantial losses, barring a few units. Thus, the country was pursuing inward-looking policies which proved to be out of alignment with the realities of global developments. All these factors together set the scene for a major acceleration of the economic reform process.

1.2 Some of the major achievements on the economic front would indicate that the reform process has started yielding positive results beneficial to the rapid transformation of the economy. The annual rate of inflation could be kept under check, and over the years, could be brought down substantially to a level below 5 per cent by the end of January 1996. It has since come down to a level of 4.7 per cent by the beginning of February 1996. Foreign exchange reserves, grew

from a level of one billion U.S. dollars to as high as 21 billion U.S. dollars by the end of 1994-95. Direct foreign investment picked up substantially over the last four years. The country's foreign investment regime now compares well with those prevailing in many Asian countries which have been successful in attracting foreign investment.

1.3 A significant achievement is the turn around that took place in the overall growth performance of the economy. For the first time the country could break the growth banner of 5.5 per cent touching a rate of 6.7 per cent during 1994-95, which is expected to be sustained during the current financial year also. The major contributory factors were the good performance of the agricultural sector which recorded a rate of growth of nearly 5 per cent, and the highly improved performance of the industrial sector which could register a growth rate of nearly 9 per cent during the year. The manufacturing sector performed extremely well. The foodgrains output is expected to remain at 190 million tonnes in 1995-96 around the same level as in the previous year.

1.4 A noteworthy feature is the buoyancy reflected in savings in the economy. The rate of savings during 1994-95 constituted 24.4 per cent of the GDP as against only 21.4 per cent in the previous year. The rise in savings has been contributed by all the institutional sectors - household, private corporate as well as the public sectors. The spurt in savings is also remarkable for its depth and pervasive nature. If this rate could be sustained and accelerated in the future years, the country would have firmly crossed the traditional threshold of 5 per cent rate of growth. It must, however, be pointed out that though India's savings rate has vastly improved, it is still at a much lower level as compared with other developing countries such as China (40 per cent), South Korea (35 per cent) and Indonesia (31 per cent). Sustained economic growth at more than six per cent would

require a much higher savings rate in the country than at present. Future fiscal policies have to necessarily address this task.

1.5 Though much has been achieved during the last five years, the fact remains that a few other developments in the economy are indicative that certain major problems still remain and that the unfinished agenda is daunting. On the external front, the trade gap has been a matter of concern as proportion of GDP, while total exports are expected to increase to a level of 10 per cent from the previous year's level of nearly 9 per cent, the GDP ratio of imports is expected to increase to 11.3 per cent from 9.6 per cent in the previous year. The fluctuations in the exchange rate of rupee in recent months have also been creating problems.

1.6 Another area of concern is the fiscal deficit. Though from an average level of 8 per cent of GDP during the period 1987-88 to 1990-91, the fiscal deficit could be restricted to an average level of 6 per cent in the post 1990-91 period, it may be noted that the improvement has resulted mainly due to a constriction in critical sectors (including power, education and health) rather than through a reduction in non-plan expenditure or any pronounced increase in revenue. This aspect needs to be underscored. It is also a matter of concern that the burgeoning revenue deficit has not yielded to any process of moderation. The increase in cost of imports of products like petroleum, fertilizers and edible oil, as a result of the impact of the rupee depreciation would also add a new dimension to the management of fiscal deficit and its containment within reasonable proportions.

1.7 Another disturbing element is the rise in outstanding external debt which touched a level of 99 billion U.S. dollars during 1994-95 from the previous year's level of 92.7 billion dollars. However, a redeeming aspect is the slight decline in debt service ratio from 28.6 per cent in 1992-93 to 25.1 per cent in 1994-95.

1.8 There are also certain areas like agriculture, which historically has contributed extensively to poverty reduction, requiring a more focussed effort. While reforms in this sector have been somewhat

partial and uneven, the pace of reforms in other areas like the public enterprises, has yet to pick up the required momentum. Though overall savings rate has improved, efforts for reducing the fiscal deficits of the Central and State Governments, and improving substantially the efficiencies of public enterprises needs immediate attention. This is absolutely essential for restoring the capacity of the public sector to invest, and accommodate higher levels of private investment. Such levels of total investment, particularly in infrastructure and social services such as primary education, are needed to achieve and sustain rates of growth and poverty reduction comparable to high performing countries in Asia. If public sector's savings performance does not improve, which is indispensable for sustained reduction in the public sector deficit, excessive monetary tightening will be required to reduce the inflationary pressures. This would have adverse impact on real interest rates, investment and the process of financial sector liberalisation. The result would be a slide down in the tempo of development placing the country on a lower growth trajectory.

Developments in Kerala's Economy

1.9 A notable feature of the recent developments in the State's economy has been the uptrend in its growth process. On the eve of launching the Eighth Five Year Plan in 1992-93, there was a virtual stagnation in the State's economy with a growth rate of only 2 per cent in real terms. The situation has shown vast improvement in the subsequent years. On the basis of the latest available data, the real rate of growth touched a level of 7 per cent in the first two years of the Plan. There was, however, some slowing down in the year 1994-95 during which the growth rate had come down to 4.8 per cent. On an average, the rate of growth of the State's economy in the first three years was well over 6 per cent which compares very favourably with the annual targeted rate of 5.6 per cent during the current plan period. The highly improved performance of the industrial sector, especially the manufacturing sector, and the satisfactory performance of agriculture contributed to the spurt in the growth of the economy. During 1991-92, the growth registered by the manufacturing sector was only 3.1 per cent. This situation improved

substantially in the subsequent years and on an average, this sector grew at a rate of 8 per cent during the first three years of the Eighth Five Year Plan.

1.10 In terms of real per capita income, the position improved from Rs.1932 in 1992-93 to Rs.2113 in 1994-95. However, Kerala still lags behind the national average per capita which stood at Rs.2401 during 1994-95. A redeeming aspect is that the gap between the two has been narrowing down over the last few years.

1.11 As far as the structural aspects are concerned, the picture has undergone changes. The relative contribution of the agricultural and allied sectors declined from 36.41 per cent in 1991-92 to 32.3 per cent in 1994-95, while that of the industrial sector increased from 23.8 per cent to 25.2 per cent during the same period. The Service Sector growth was significant from 39.7 per cent to 42.5 per cent in the corresponding period. This structural transformation is broadly in keeping with the trends at the national level. With the growing diversification of the economy, the contribution of the agricultural sector in relative terms is bound to decline. However, what is important is that between the industry sector and service sector which includes activities like trade, banking, insurance etc., the development in respect of the former has to be accelerated so as to ensure that economic growth is accompanied by creation of more gainful employment opportunities.

1.12 As far as regional aspects of development are concerned, districts which remained backward at the time of commencement of the Eighth Plan could not show any improvement in their overall development. Alappuzha District in Southern Kerala and Palakkad, Malappuram and Kasargode in the north have continued to remain backward. Special efforts are being made to speed up implementation of the development projects in the northern part of the State. A high level review committee under the chairmanship of Chief Minister has been constituted to review and monitor important schemes and projects in the Malabar area.

1.13 During the year 1995-96, to give emphasis to programmes meant to benefit the poorer and weaker sections of society, the State Government launched a special fifteen point programme. The programme among other things, included special schemes for additional employment opportunities, relief to farmers, development of scheduled caste and scheduled tribes, supply of pure drinking water, construction of dwelling houses to the poorest of the poor, improving health services of common people, to mention a few important schemes. These programmes are monitored from time to time and satisfactory progress has been made in the implementation of these special schemes.

1.14 As far as the price situation is concerned, the consumer price index for agricultural and industrial workers reflected an increase of 13 per cent during the year 1995 over the level in the previous year. This may be taken as broad indication of the inflationary trend in the economy. In the case of wholesale price index of agricultural commodities, the increase during January - October 1995 was of the order of 15.3 per cent over the corresponding period of the previous year. The increase was even higher in the case of food crops. One positive gain as a result of this upward movement was that the terms of trade for agriculture showed a marginal improvement during the year as the percentage increase in prices paid out by the farmers (11 per cent) was lower than the percentage increase (13 per cent) in the prices received by them. Thus, while the upward trend in the cost of living index has been unfavourable to the consumers in general, the farming community stood to gain during the year.

1.15 On the basis of the performance of the State's economy over the course of recent years, the outlook for the future should appear to be bright. However, there are a few disturbing signals, the most important of which relates to the development in the power sector. For a State like Kerala, which depends exclusively on hydel power generation, vagaries of monsoons can spell disaster. This year the failure of the North-East monsoon has substantially curtailed the inflow into the major

reservoirs, thereby adversely affecting the generating capacity. The State is compelled to go in for load shedding and powercut., the major sufferer being the industrial sector. The current power shortage is likely to result in a slowing down of the overall growth witnessed in the past with adverse consequences on production and employment. The State Government has chalked out both long-term as well as short-term programmes, to overcome this situation. While plan allocation for power development has been stepped up significantly, emphasis is being given for speedy completion of certain ongoing projects like Kakkad, Lower Periyar and Bramhapuram Diesel Plant. Taking advantage of the liberalisation measures initiated at the national level, the State Government has drawn up ambitious power development programmes involving large scale private sector participation and a number of agreements to this effect has already been signed. The improvement in the power situation would however, depend on the speed with which decisions are taken at every stage and the projects got implemented. Much has been lacking on both these counts.

1.16 Another aspect that would need more focussed attention is that relating to the support of financial institutions for implementation of the State's development programmes. The performance of the banking sector needs improvement in terms of dispensation of credit as the credit-deposit ratio of Kerala has been showing a declining trend in recent years. Similarly adequate support has also not been forthcoming from the all India Financial Institutions, Kerala's share being less than 2 per cent in their overall disbursements. For a State which does not have adequate budgatory resources to meet the various development requirements, the financial institutions would have to lend the necessary support especially in helping the State to develop the basic infrastructure needs like power and industry. In these sectors, the All India Financial Institutions have not shown sufficient involvement. This position has necessarily to undergo a change in future.

1.17 The overall financial position of the State Government over recent years, has shown

improvement thanks to effective mobilisation of additional resources. However, the position regarding revenue deficits is a matter for continuing concern. The revenue deficit, as a percentage of revenue expenditure in 1995-96 (B.E.), increased to 14.7 per cent from 13.4 per cent in the revised estimate for the previous year. This Review has repeatedly pointed out that financing revenue deficits through borrowings is not a healthy trend as that would lead to increasing indebtedness without the creation of any physical assets. It also inhibits economic growth due to large scale diversion of development funds for non-plan purpose.

1.18 The process of the transfer of powers and functions to the Local Bodies as envisaged in the 73rd and 74th amendment of the Constitution has been set in motion. Orders have been issued for effecting the consequent transfer of funds to the Local Bodies. The administrative machinery is being deployed accordingly to undertake the new responsibilities connected with decentralised planning. The year 1995-96 and 1996-97 can be transitional years during which government schemes that are already under implementation will be completed. Some funds will however be placed at the disposal of the Local Bodies during the next financial year with freedom to formulate and implement local level need based programmes. Selected indicators of the State's economy are presented in Table 1.1.

State Income

1.19 The State income in 1994-95 at constant prices is estimated (quick estimate) at Rs.6461 crores as against Rs.6165 crores (provisional) in 1993-94, registering a growth rate of 4.8% against the provisional estimate of 7.2% in 1993-94. At current prices the State Income in 1994-95 is estimated at Rs.21358 crores as compared to Rs.18837 crores in 1993-94. The per capita income in 1994-95 at constant prices is estimated at Rs.2113 as compared to Rs.2043 in 1993-94, registering a growth rate of 3.4%. The percapita income at current prices is likely to be Rs.6983 in 1994-95 as against Rs.6264 in 1993-94. The percapita income of the State

continues to lag behind the National average, but during the last few years the gap between the two has been steadily declining.

1.20 The sectoral distribution of income shows that the tertiary sector continues to dominate the State income followed by the Primary sector. The contribution of the tertiary sector has increased from 41.44% in 1993-94 to 42.45% in 1994-95. The share of primary sector has declined from 33.83% in 1993-94 to 32.33% in 1994-95 while that of the secondary sector has marginally increased.

Employment

1.21 There has been a significant improvement in the unemployment position in the State, even though the magnitude continues to be large. The job seekers in the live registers of the employment exchanges have sharply declined from 41.52 lakhs as on 31-3-1995 to 32.26 lakhs as on 31-12-95. This no doubt indicates the positive impact of the measures initiated for development in the State during this Plan period, which helped to ease the conditions in the employment market. Efforts made in this direction have to be pursued vigorously to drastically reduce the backlog of unemployed within a reasonable time frame.

1.22 Latest data regarding the growth of employment in the organised sector and actual placement through Employment Exchanges are not readily available. However according to the data for the year 1994-95 employment in the organised sector remained more or less at the same level of 11.85 lakhs in the previous year. Out of 11.84 lakhs in 1994-95, 6.44 lakhs were in the public sector and 5.40 lakhs in the private sector. Placement through employment exchanges in 1994-95 stood at 18305, compared to 13828 in 1993-94.

Price Situation

1.23 The general price level during the year under review came under severe pressure. The consumer price index went up by 13 per cent during the year. The wholesale price index for agricultural

commodities during the period January to October 1995 reflected an increase of 15.3 per cent over the corresponding period of the previous year. This resulted in farmers getting remunerative prices for their products excepting in the case of coconut which witnessed a falling price trend.

Agriculture

1.24 For the first time during the past one and a half decades, the agriculture sector witnessed positive growth in the last four years in succession. But the fact that there was not a definite trend in the growth rate brings to light the unstable nature of the agricultural operations in the State. Even though a high growth rate of 6.08% was recorded in 1993-94, the average for the first three years of the Plan was lower at 2.2%. Buoyed by the favourable weather conditions, the growth rate remained consistently positive during the last three years. Commercial crops in general, with the exception of cashew and groundnut, coffee and tea, recorded impressive increases in production. Production of coconut and rubber reached new peaks in 1994-95. Cardamom also has recorded impressive growth in production. The increase in production has mainly been made possible by improvement in productivity. The favourable conditions during the last three years appear to have received a set back with the failure of monsoons in the second half of 1995.

1.25 An important feature of the agricultural economy of the State during the last two years has been the significant increase in the production of coconut and rubber. Coconut production which remained consistently below 4000 million nuts for over one decade has recovered to reach 5192 million nuts during 1993-94 and to a new peak of 5303 million nuts in 1994-95. Even such an increase in production has not helped to bolster the spirits of the coconut cultivators as the prices remained depressingly low, though the price situation registered some improvement during the latter half of 1995. Production of rubber also reached a new high of 4.42 lakh tonnes, while that of cardamom has also significantly increased from 2424 tonnes in 1993-94 to 4431 tonnes in 1994-95.

1.26 Area under rice and production of rice continued to decline. The area declined from 5.08 lakh ha. in 1993-94 to 5.03 lakh ha. in 1994-95. However, the measures taken during the 8th plan period, particularly the group activity, has helped to reduce the rate of decline from 25000 ha. prior to the Eighth Five Year Plan to an annual average of 16000 ha. Rice production continues to fall from 10.85 lakhs tonnes in 1992-93 to 10.04 lakh tonnes in 1993-94 and is estimated to have declined further to 9.75 lakh tonnes in 1994-95. The decline in production seen in tandem with the fall in area under rice cultivation and fall in productivity, from 1977 Kg. per ha. in 1993-94 to 1937 Kg. per ha in 1994-95, is a matter which would require necessary corrective measures both institutional and technological so as to prop up the production level. The poor performance is partly attributable to the low coverage of high yield varieties (H Y V). Out of the gross cropped area of 5.03 lakh ha. the coverage of HYV is just 1.72 lakh ha. which represents only 34% of the cropped area. Production of other food crops such as tapioca and pulses also declined during 1994-95.

1.27 Non-food crops by and large performed well, with production of most of the crops showing improvement. Production of rubber increased from 4.08 lakh tonnes in 1993-94 to 4.42 lakh tonnes in 1994-95, pepper from 49545 tonnes to 52011 tonnes, ginger from 37676 tonnes to 47673 tonnes, Areacanut from 15357 million tonnes to 15616 million tonnes, cardamom from 4430 tonnes to 4431 tonnes during the period. The crops which recorded fall in production were cashew from 87514 tonnes to 86993 tonnes, groundnut 13304 tonnes to 9133 tonnes, coffee 43472 tonnes to 39000 tonnes and Tea from 66691 tonnes to 65141 tonnes during the same period.

Livestock

1.28 Kerala accounts for 1.75 percent of the total cattle population in the country. About 62% of the breedable cattle in the State is crossbred, made possible by expanding the facilities and veterinary services. So far 2097 Artificial Insemination Centres have been established and the capacity for artificial insemination has been brought

to a level of around 1.4 lakh dozes. As a result of these, milk production increased from 10.78 lakh tonnes in 1982-83 to 21.18 lakh tonnes in 1994-95. Of late, the demand for milk has increased considerably with the result the internal supply is not adequate to meet the demand.

1.29 The Kerala Milk Marketing Federation, the implementing agency for Operation Flood programmes, operates through 1721 Anand pattern cooperative societies (APCOS) with a membership of 4.79 lakhs. With the commissioning of North Kerala Dairy Project the entire state has been brought under the network of APCOS for procurement of milk.

Fisheries

1.30 The Fisheries sector supports about 33% of the total population in Kerala. Fishing activities in the State are still concentrated in the inshore area of the marine sector. The potentials of the offshore (deep see) area and inland areas remain largely unexploited. The inland sector with a potential waterspread of 3.6 lakh ha. accounts for only about 0.48 lakh tonnes, about 7.8% of the total fish catch in the State in 1994-95. With a view to develop the inland fisheries, a Kuwaiti Fund assisted fisheries project at a total project outlay of 75 crores is being implemented in the State. In order to expand the coverage of inland fisheries, a new project for the development of culture fisheries in five reservoirs of the irrigation projects has been launched in the State.

1.31 The total fish catch during 1994-95 was 6.16 lakh tonnes, which was marginally lower than the catch of 6.20 lakh tonnes in 1993-94. Out of the total catch in 1994-95, the share of marine sector was 5.68 lakh tonnes, and that of the inland sector was 0.48 lakh tonnes.

Irrigation

1.32 The cumulative investment on irrigation amounts to Rs.1628 crores, out of which about 70% is on major and medium irrigation projects. The total irrigation potential created so far is 3.92 lakh ha (net) and 6.40 lakh ha (gross).

The total investment on major and medium irrigation projects amounts to Rs.1144 crores with an irrigation potential of 2.10 lakh ha (net) and 4.24lakh ha (gross). The Eighth Five Year Plan envisaged completion of 10 major irrigation projects. Four projects have already been completed, and another five projects will be completed by the end of the plan. Muvattupuzha irrigation project has been partially commissioned.

1.33 The area brought under irrigation through minor irrigation schemes including ground water sources as at the end of 1994-95 was 1.80 lakh ha (net) and 2.33 lakh ha. (gross).

1.34 Anti-sea erosion works, implemented with 50% central support upto the beginning of the Eighth Five Year Plan, is at present being implemented as a State scheme. As a result the coverage of activity had to be scaled down. Upto 3/95, 342.6 kms. of new sea wall were constructed and reformation works of 65.02 km. of sea wall were carried out. Till the end of 1994-95, the expenditure on anti-sea erosion works amounted to Rs.153.17 crores.

Command Area Development

1.35 Command area development, with 50% Central support is implemented in the commands of 14 completed projects. During 1994-95, field channels were constructed to benefit 1084 hectares, varabandi system covered 11117 hectares, adaptive trials in 2049 ha. and demonstration covered 7620 hectares. The programme has to be activated with vigour with peoples' participation to enable the farmers realise the benefits of the irrigation potential created.

Energy

1.36 The installed capacity as at the end of the year 1994-95 was 1492 MW. The total energy generated during the year was 5737 MU as against 5822 MU in the previous year. The power purchased from Central pool has gone up from 2036 MU in 1993-94 to 2247 MU in 1994-95.

1.37 The cumulative investment for power development upto the end of 1994-95 amounts to

Rs.2296 crores. The outlay during 1995-96 is Rs.459 cores. The energy sold during 1994-95 stood at 7028 MU. Revenue realised by the sale of power during the year amounted to Rs.633.15 crores as against Rs.530.88 crores in 1993-94. The T & D losses remained slightly above 20%. The performance of KSEB during the Eighth Five Year Plan has shown considerable improvement compared to the earlier years. During 1994-95 the Board generated a rate of return of 3.04 per cent.

1.38 Power shortage continues to be the major bottleneck for the development of the State. The existing demand supply gap for energy is 1400 MU. The per capita consumption of electricity in the State is 231 Kwh which is the lowest among the southern States. Dependence on hydroelectric power and the undue delay in commissioning of the projects taken up for implementation have mainly contributed to the shortage in power. The failure of the North East monsoon in 1995 has affected the storage position in the reservoirs and electricity generation resulting in load shedding and power cut. A long standing suggestion to have an appropriate hydel thermal mix and implementation of short gestation power generating units has to be given urgent attention. Besides, in view of the constraints of resources faced by the State Government to mobilise fund for the massive investment required for setting up power plants, private sector participation for power development needs every encouragement.

Industry

1.39 The development strategy adopted by the State Government on the industrial front, following the industrial policy statement of 1991, helped to lay a reasonably strong foundation for the growth of the industrial sector in the State. Since then, investment of the order of Rs.3000 crores could be attracted into the medium and large industries sectors. The investment in the small scale sector during this period was of the order of Rs.886 crores. Similarly, projects involving foreign investment of Rs.3300 crores could be attracted, and those proposals are at different stages of processing.

1.40 With the financial support of Kerala State Industrial Development Corporation (KSIDC), 28 projects involving a total investment of Rs.133 crores could be commissioned in the large and medium industries. Another 45 projects costing Rs.182 crores were taken up for implementation. The KSIDC has taken investment decisions for 51 projects at a total cost of Rs.225 crores and signed MOUs for establishing 24 projects with a total investment of Rs.166 crores during 1994-95. Among the 45 State Public Sector undertakings, the details of which are available, 22 units were working on profit during the year under review. Those units together earned a total profit of Rs.88.41 crores during the year. The first phase of the electronic technopark has been completed and it has been dedicated to the Nation in November 1995.

1.41 Out of the projects taken up by Kerala Industrial Infrastructural Development Corporation (KINFRA), four major projects are the Export Promotion Industrial Park at Cochi, International Apparel Park at Thiruvananthapuram, Integrated Infrastructure Development Centre at Thiruvananthapuram and the Integrated Industrial Township at Palakkad. These projects together will cost 298 crores, which will provide facilities to 590 industrial units.

1.42 The number of working factories rose to 15357 by the end of 1994 from 15074 in 1993. The number of workers increased from 3.91 lakhs to 4.0 lakhs during the period. The number of industrial disputes declined to 6153 in 1994-95 from 7234 in the previous year.

1.43 During 1994-95, 15836 small scale industries, against a target of 15000, were newly registered. Out of this, 3619 units were run by women entrepreneurs, and 1053 by SC/ST entrepreneurs. The largest new units were registered in Ernakulam district (1915 units) followed by Thiruvananthapuram (1758) while Idukki and Wayanad accounted for the lowest number of units. With this the total number of small scale units stood at 1,26,220 with an aggregate investment of Rs.1367 crores. Those units provided employment to 7.3 lakh persons. The new units registered in 1994-95 provided employment to

73,618 persons. The Kerala Financial Corporation sanctioned an amount of Rs.109.35 crores to 1816 units during 1994-95, out of which Rs.71.07 crores was exclusively for small scale units.

1.44 The traditional industries by and large have shown reasonable growth in output and income, even though many of them were beset with a variety of problems. Coir sector, the major traditional industry in the State provides employment to 3.83 lakh workers. As on 31-3-95 there were 666 coir co-operative societies. The measures taken for implementing the Integrated Coir Development Project aimed at modernising the coir industry has given a new lease of life to this vital traditional industry in the State. Under this programme 100 mechanised defibring mills and 200 motorised spinning units, with financial support from Government of India and NCDC, have already been started in the previous year. Export of coir and coir products have shown significant increase in 1994-95. The export earnings in 1994-95 stood at Rs.164.75 crores as compared to Rs.126.85 crores in 1993-94. Handloom industry provides employment to about two lakh workers. Even though the industry has shown improved performance, in terms of the number of looms acquired, production of cloth etc., the major problem of unsold stock of handloom cloth continues to persist. By the end of March 1995, the accumulated unsold stock of handloom cloth amounted to Rs.26.78 crores, as compared to Rs.24.45 crores in the previous year. Shortage of raw cashewnut continues to be the main problem faced by the cashew industry. About 2.31 M. tonnes of raw cashew was imported during the year. The internal production of cashew has declined to 86993 tonnes in 1994-95 from 87514 tonnes in 1993-94. Export earnings though the export of cashew Kernels and cashew shell liquid amounted to Rs.1244.26 crores.

1.45 The progress of sericulture development which offered tremendous potential has been below the expected level. Against the Eighth Five Year Plan target of bringing 50000 acres of land under mulberry cultivation, the achievement has been 5591 crores till the end of 1995. With a view to activate the programme, a new organisation, viz. The Kerala State Sericulture

Co-operative Federation (SERIFED) has been set up. It is hoped that the SERIFED, once fully operational, would be able to give the necessary impetus for the proper development of sericulture development in the State.

1.46 The share of Central sector investment at 1.29% in 1994 has shown a marginal decline from 1.31% achieved in 1993. The total Central sector investment in the country has increased from Rs.173501 crores in March 1993 to Rs.198912 crores in March 1994, showing an increase of Rs.25411 crores. Out of this, Kerala received only Rs.291 crores, constituting just 1.15% of the incremental investment. In absolute terms the investment went up from Rs.2275 crores in 1993 to Rs.2566 crores in 1994.

Transport

1.47 Kerala enjoys a fairly well developed transport network. But in several places, the road network, road width etc. are not adequate to accommodate the fast growing motor vehicle population. Total road length in the State in 1994-95 was 142343 Kms as against 141010 Kms in the previous year. The total number of motor vehicles stood at 10.06 lakhs in 1994-95 compared to 8.9 lakhs in the previous year. Out of 19988 passenger buses in the State as on 31-3-1995, 3005 buses were owned by KSRTC. Buses owned by KSRTC has increased to 3428 by the end of September 1995. The KSRTC has turned round the corner as the working results during 1994-95 showed an operating profit of Rs.9.50 lakhs, by measures taken for reducing the bus man ratio, better fleet utilisation and better management.

Tourism

1.48 The Tourism Department and the Kerala Tourism Development Corporation are the two Government agencies engaged in tourism promotion in the State. The foreign tourist arrivals in the State during 1994 went upto 104568 from 95209 in the previous year, registering an increase of 9.8 per cent. The total tourist arrivals in 1994 stood at 13.89 lakhs compared to 11.22 lakhs in 1993, registering an increase of 23%. With a view

to give the necessary push to tourism in the State, attention is being given to promotional aspects of the tourism related activities.

1.49 The KTDC runs a chain of hotels, motels, yatrivas etc. Priority is being given to infrastructural development and marketing as part of the overall tourism development. A Bakel Tourism Development Authority has been formed for implementing the comprehensive tourism programme for the Bakel Fort and adjoining areas.

Education

1.50 Kerala has achieved the highest effective literacy rate in the country. According to 1991 census Kerala's literacy rate was 89.81 per cent as compared to the all India average of 52.21 per cent. The female literacy rate was 86.17 per cent in Kerala compared to the national average of 39.29 per cent.

1.51 During 1994-95 there were 12092 schools in the State, out of which 4453 (36.83%) were Government Schools, 7297 (60.34%) private aided schools and 342 (2.83%) private unaided schools. The total number of schools consisted of 6694 Lower Primary Schools, 2912 Upper Primary Schools and 2486 High Schools, in addition to the LP and UP sections attached to the UP and High Schools.

1.52 The school enrolment in 1994-95 stood at 57.17 lakhs compared to 58.08 lakhs in the previous year. The number of teachers in the year under review was 1.91 lakhs. The teacher pupil ratio is 1:30. The number of uneconomic schools with enrolment less than 25 per standard, a peculiar phenomenon witnessed in Kerala, has increased from 1265 in 1994 to 1347 in 1995, comprising 542 Government schools and 805 private aided schools. This is an area where the Government have to give serious considerations to the justification in continuing them in the manner they are working. The number of protected teachers stood at 1493 in 1994.

1.53 There are five Universities in the State. A new University, The Malabar University, is being set up (since inaugurated) to cater to the needs of

the northern most districts of the State. There were 170 Arts and Science Colleges in 1994-95, out of which 37 are Government Colleges and 133 are private colleges. 44 colleges were affiliated to Kerala University, 56 colleges were affiliated to Mahatma Gandhi University and 70 colleges to Calicut University. Enrolment of students at the University level stood at 1.6 lakhs out of which Girl students accounted for 0.89 lakh. The teaching faculty had a total strength of 13640 in 1995, out of which women teachers were 5226, constituting 38.3% of the total teaching faculty.

1.54 Technical education in the State consisted of 13 Engineering Colleges comprising of 4 Government Colleges, 3 private aided colleges, 1 Regional Engineering College, 4 Self Financing Colleges and 1 Model Engineering College, 38 Polytechnics and 39 Technical High Schools. The total enrolment in Engineering Colleges stood at 3821 in 1995.

1.55 The total expenditure on education in 1994-95 amounted to Rs.1378 crores as against 1150 crores in the previous year. Out of Rs.1378 crores, Rs.646 crores was spent on primary education, Rs.428 crores on secondary education and Rs.231 crores on University and higher education. Even though there has been considerable increase in the expenditure on education, there has not been a corresponding increase in the quality of education. The expenditure is almost entirely on establishment, leaving very little for quality improvement. With the existing levels of budget allocations, and given the financial constraints of the State Government, the scope for appreciably increasing the budget provision for improving the quality is rather limited. Government has taken some steps towards increasing the cost recovery of education. This has to be pursued for achieving a rational pricing mechanism to supplement the budgetary allocations in order to ensure the sustainability and quality of education.

Health

1.56 Kerala has made notable achievements in health standards as reflected in the attainment of low infant mortality rate, low maternal mortality rate, low birth rate, low death rate, high life

expectancy etc. These achievements are far ahead of the national average. This has been made possible through a wide network of health infrastructure, women education, general health consciousness and clean health habits of the people. The decadal growth rate (1981-91) in population was 14.32% as against the national average of 23.5%.

1.57 The health care facilities consist of 147 Hospitals comprising 5 Medical College Hospitals, 5 General Hospitals, 11 District Hospitals, 36 Taluk Hospitals, 73 Intermediate Hospitals, 8 Child Hospitals, 3 Leprosy Hospitals, 3 TB Hospitals and 3 Mental Hospitals. The Ophthalmic Hospital, Thiruvananthapuram has been converted into Regional Institute of Ophthalmology. The total bed strength in these hospitals put together were 42,126. The number of beds per lakh of population stood at 137 during 1995. Similarly there were 23364 medical and paramedical personnel with the department of health services and 1806 with the Medical education department. Medical education and training is offered through 6 Medical Colleges, 2 Dental Colleges and 3 Nursing Colleges.

1.58 In the field of Ayurveda there were 108 hospitals with 2329 beds and 587 dispensaries. There are 5 Ayurveda Colleges in the State, 3 in the Government Sector and 2 in the Private Sector, with an annual intake of 170 students for BAMS. MD course is imparted only at the Ayurveda College, Thiruvananthapuram with an intake of 42 candidates.

1.59 During 1994-95 there were 31 Homoeopathic Hospitals with 950 beds and 384 dispensaries, one clinical laboratory, attached to the District Homoeo Hospital, Palakkad and one rehabilitation centre for mentally retarded attached to Government Homoeo Hospital, Thiruvananthapuram. There are 5 Homoeo Medical Colleges in the State of which two are in the Government Sector and three in the private sector.

1.60 The Family Welfare Programmes in the State are implemented through a network of 940 Primary Health Centres and 5094 sub-centres. The present couple protection rate is 63 as against 45.8 at the national level.

1.61 The total expenditure on health stood at Rs.334 crores in 1994-95 (RE). The per capita expenditure on health has increased from Rs.98.53 in 1993-94 to Rs.130 in 1994-95. Just as in education, the quality of health service has also deteriorated considerably as the Government is unable to allocate the required provision for quality improvement owing to the paucity of resources. There is need for a rational pricing policy. The beginning already made in this regard by the Government has to be pursued further in order to mobilise funds for improving the quality of health standards in the State.

Housing

1.62 There has been a shift in policy in housing in favour of the economically weaker sections in recent years. Out of the total of 5.81 lakh houses constructed by the public sector agencies during the period from 1985-86 to 1994-95, as much as 5.23 lakh houses were for economically weaker sections. Another significant development is the increasing role of institutional finance for funding the housing programmes in recent years. According to 1991 census, there were 54.59 houses and 55.13 lakh households in the State resulting in a numerical shortage of 54000 houses. The total demand for houses projected for 2000 is 16 lakhs.

1.63 There are about 30 agencies involved in housing in the State, the major ones are Revenue Department, Housing Department, Finance Department, Kerala State Housing Board, Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes, State Co-operative Housing Federation etc.

1.64 Housing Board is the major public agency which implements about 28 housing schemes. As on 31-3-95 the Board has constructed/assisted more than 3 lakh houses under various schemes. The co-operative Housing Federation extended financial assistance for the construction of 76427 houses with a loan disbursement of Rs.266 crores as on 31-3-1995. The Scheduled Castes Development Department assisted construction of 1844 houses and the ST Department provided

assistance for the construction of 871 houses during 1994-95. Financial assistance received from Institutional agencies such as HUDCO, LIC etc. for housing purposes during 1994-95 amounted to Rs.120 crores.

Water Supply

1.65 Out of the total villages in the State 1343 have been covered with protected drinking water supply. About 1462 rural water supply schemes are under implementation. According to the latest estimates, 43% of the State's rural population and 67% of the urban population could be provided with protected drinking water supply. About 5.07 lakh houses have been connected with piped water supply. During 1994-95, 236 water supply schemes were completed.

Institutional Finance

1.66 There has been a steady decline in the credit deposit (CD) ratio of the commercial banks in the State. The CD ratio has declined from 64.77 in March 1988 to an all time low of 40.9 in September 1994. But it has shown some improvement thereafter and reached 45.49 as at the end of Septembers 1995.

1.67 Kerala's share of assistance sanctioned by all India Financial Institutions has further declined. As on 31-3-1994, the share was only 1.5%, next only to Assam and Bihar. The fall in credit-deposit ratio and the very low share of assistance sanctioned by All India Financial Institutions have hampered the general investment tempo in the State which is faced with a very high rate of unemployment. Needless to say that unless investment, that too of the right type, takes place on a substantial scale the economic problems of Kerala could get accentuated making it more difficult to find effective solution. The State government has to make every effort to take advantage of the liberalisation process set in motion by the government of India.

Plan Outlay

1.68. The Plan implementation in the State has steadily improved from year to year since the

commencement of the Eighth Five Year Plan. Against an achievement of 91% in 1992-93 compared to the approved outlay, the performance during 1993-94 and 1994-95 exceeded 100 per cent. In 1995-96, the indications are that the plan outlay would be exceeding the approved outlay. The State Government's performance in the first four years of the Eighth Five Year Plan stands out, as acknowledged by Planning Commission in comparison with many other States, which recorded substantial shortfalls in expenditure during the last three years. In the first four years of the Eighth Five Year Plan the State is likely to achieve 89% of the approved plan outlay for the Five Year Plan in nominal terms.

1.69. The budgetted outlay for 1995-96 is Rs.1550 crores. It is expected that the expenditure during the year would exceed this outlay.

1.70. The Plan outlay for 1996-97 is yet to be approved by Planning Commission. The Planning Commission has informed that as the General elections at the Centre and the State are to be held shortly, it is appropriate that a decision on the Annual Plan 1996-97 is taken by the new Governments that would come to power both at the Centre and the State. In view of this, the discussions with the State Government has not been convened by Planning Commission. Therefore a decision on the final plan size for 1996-97 will be taken only after the new Governments are formed. Pending that approval and since the process of budget preparation has to be completed, the State Government has fixed a Plan outlay of Rs.2100 crores for 1996-97, subject to approval later by the Planning Commission. This plan outlay of Rs.2100 crores represents an increase of 35.5% over the current year's plan outlay. In the next year's plan proposals, the main thrust areas are power, irrigation, industry, transport and communications. At the same time, areas which are capable of large scale employment generation such as crop production, soil conservation, livestock

fisheries, village and small industries are also given higher outlays. Special mention may be made of tourism, the outlay for which has been increased by three times, compared to the outlay in the current year, with a provision of Rs.30 crores considering the potential for employment generation in this area.

1.71. A special feature of the next year's Annual Plan is the emphasis given for decentralised Planning. A special development assistance of Rs.212 crores, in the form of untied funds, is proposed for formulating and implementing local level development programmes. This is in addition to the outlays for the schemes covering the powers and functions listed in the Panchayat Raj Act and Municipalities Act to be transferred to the Local Bodies. Altogether a plan allocation of over Rs.540 crores, about 26% of the total plan outlay, is proposed to be transferred to the Local Bodies during 1996-97. The likely cumulative plan performance from First Five Year Plan onwards and the sectoral outlays for the Annual Plan 1996-97 are given in Figs. 1.1 and 1.2.

1.72. In general the year under review witnessed improvement in the overall financial position of the Government and the performance in terms of Plan implementation. The black spot in an otherwise encouraging scenario is the failure of the north-east monsoon in 1995 causing worry for the economic outlook for this year and the following year. The improvement witnessed in the past three years is not adequate enough to make a dent on the chronic and fundamental problems facing the economy of the State. The challenges will have to be met squarely by appropriate policy measures and decision. With the formation of the Local Government Institutions, it is hoped that some of these issues would be addressed effectively and solutions found at the local levels. At the State level appropriate policies, institutional reforms, speedy decision-making, good public management and fostering of a climate favourable for savings and investment are essential.

Table 1.1

Important Indicators of the State Economy

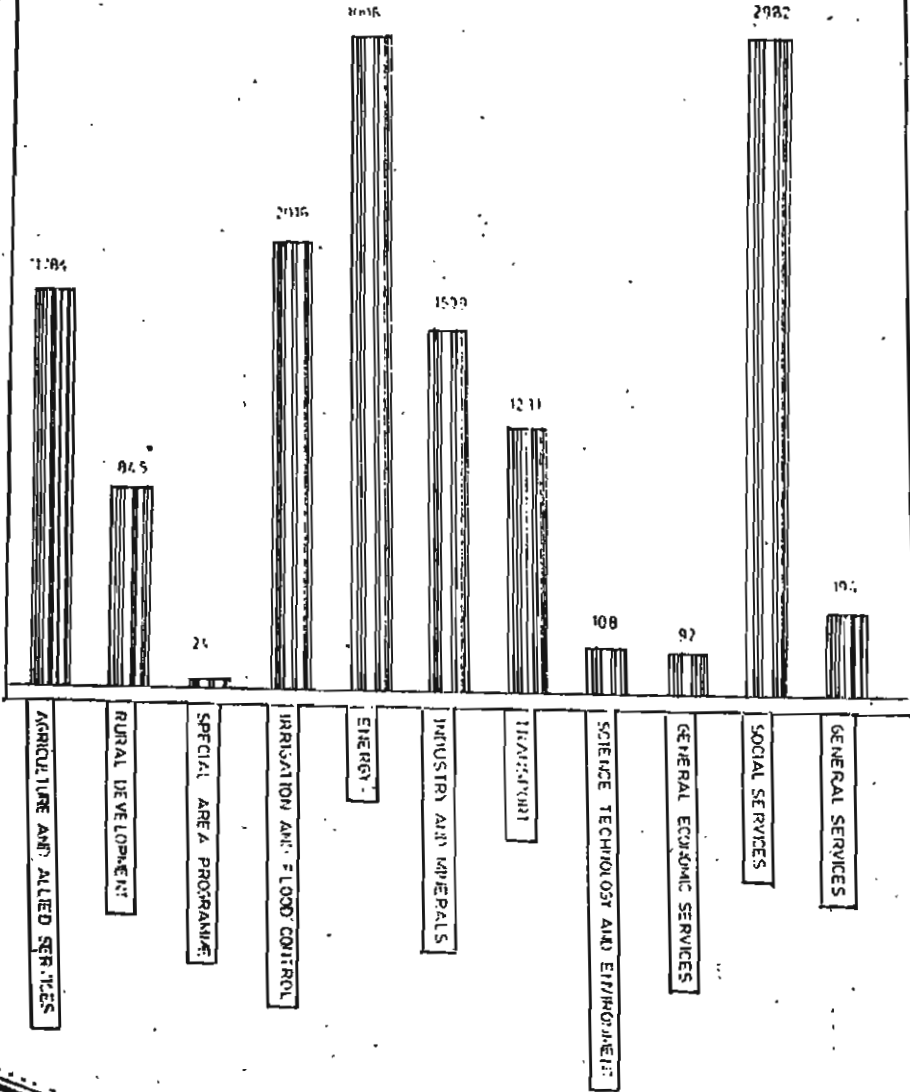
Item	1970-71	1980-81	1985-86	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
1	2	3	4	5	6	7	8	9	10	11	12
1. State Income at current prices (Rs.crores)	1255	3823	6436	9182	10165	12173	15102	17175	18837(P)	21358(Q)	---
2. State Income (1980-81) Prices (Rs.crores)	1255**	3823	4042	4584	4892	5262	5365	5752	6165(P)	6461(Q)	---
3. Per Capita Income (at current prices) (Rs.)	594	1508	2395	3251	3730	4200	5140	5768	6242	6983	---
4. Output of important commodities											
a) Rice-lakh tonnes	12.98	12.72	11.73	10.13	11.41	10.87	10.60	10.85	10.04	9.75	---
b) Coconut - Million Nuts	3981	3008	3377	4215	4358	4232	4641	5124	5192	5303	---
c) Arecanut - Million Nuts	12738	10805	10664	11450	11964	13074	13116	13643	15357	15616	---
d) Pepper - 1000 tonnes	25.03	28.52	33.12	43.24	54.14	46.80	50.31	49.67	49.55	52.01	---
e) Rubber - 1000 tonnes	78.73	140.33	184.70	238.41	275.40	307.52	343.11	368.65	408.31	442.83	---
f) Tea - do -	41.45	50.72	52.63	65.77	57.08	63.42	66.80	54.44	66.69	65.14	---
g) Coffee - do -	12.57	36.48	23.55	47.43	23.80	35.70	30.96	36.17	43.47	39.00	---
5. Prices											
a) Wholesale price index of Agricultural Commodities (Base 1952 - 53 = 100)	222	551	688	957	906	1028	1263	1377	1550	1492	1690
b) Consumer price index number (Base 1970 = 100) @ @	264	202	314	395	413	435	497	553	599	671	757
6. Plan Outlay (Rs. crores) (Accounts)	59.35	311.31	411.95	543.13	620.28	662.70	719.53	825.32	1091	1358	1550(BE)

(P) Provisional (Q) Quick Estimate (*) Ten months average for 1995.

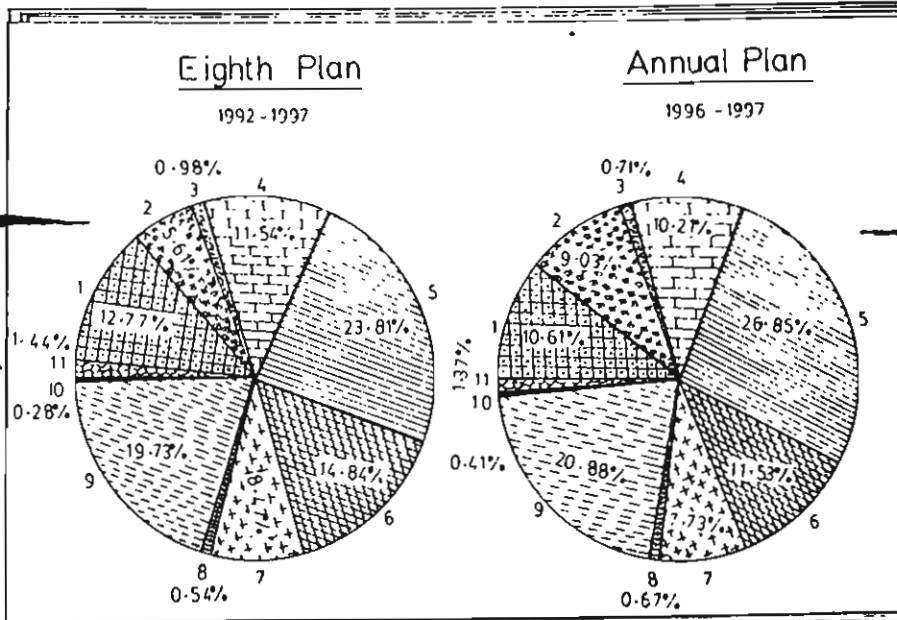
(**) @ @ Relates to calendar years from 1980 onwards and eleven months average for 1995. (***) ^ (1970-71 prices)

Cumulative Plan Performance (Sector wise) From First Plan (1951-56) To Eighth Plan (1992-97)

(Rs.Crores)



SECTORAL DISTRIBUTION OF OUTLAYS IN PERCENTAGES



- 1 AGRICULTURE AND ALLIED SERVICES
- 2 RURAL DEVELOPMENT
- 3 CO-OPERATION
- 4 IRRIGATION AND FLOOD CONTROL
- 5 POWER
- 6 INDUSTRY AND MINERALS
- 7 TRANSPORT AND COMMUNICATIONS
- 8 SCIENTIFIC SERVICE AND RESEARCH
- 9 SOCIAL SERVICES
- 10 GENERAL ECONOMIC SERVICES
- 11 GENERAL SERVICES

Fig:1-2

CHAPTER - 2

INCOME AND EMPLOYMENT

National Income

The overall economic performance of the country during the first three years of the Eighth Five Year Plan was encouraging and satisfying on many dimensions. There was substantial pick up in the growth rate of the economy supported by better performance in both agriculture and industry. The revival of the industrial output witnessed in the first year of the Eighth Five Year Plan continues to remain strong in the current year running. The annual growth rate in national income in the first three years of the Eighth Plan would work out to 5.4 per cent. A sharp upturn in industrial activity was the most significant feature of 1994-95, with capital goods as well as consumption goods sector posting significant improvement.

2.2. The National Income (net national product at factor cost) continued to grow steadily from 5 per cent in 1992-93 to 6.7 per cent in 1994-95. At constant prices the National Income in 1994-95 is estimated at

Rs.245600 crores as against Rs.230100 crores in 1993-94, a growth rate of 6.7 per cent. In 1995-96 the growth in National Income at constant prices is expected to be 6.3 per cent. At current prices the National Income in 1994-95 is estimated at Rs.839500 crores as compared to Rs.708500 crores in 1993-94, representing a growth rate of 18.5 percent.

2.3. The growth rate of 6.7 per cent in national income during 1994-95 has been mainly due to high growth in agriculture, manufacturing, electricity, construction, trade, hotels and restaurants, transport other than railway and communication.

2.4. The per capita national income, in real terms, is estimated at Rs.2401 in 1994-95 compared to Rs.2292 for 1993-94, registering a growth rate of 4.8 per cent. At current prices per capita national income is estimated at Rs.8237 in 1994-95 as against Rs.7060 for the previous year representing a growth rate of 16.7 per cent.

TABLE 2.1

National Income and State Income

Item	Unit	1980-81	1990-91	Growth Rate	1991-92	Growth Rate	1992-93	Growth Rate	1993-94 (P)	Growth Rate	1994-95 (Q)	Growth Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
National Income	Rs. Crores											
At Current prices		110685	416495	16.4	477868	14.7	618400	13.9	708500	14.6	839500	18.5
At Constant Prices		110685	185683	4.6	185503	(-0.1)	220100	5.0	230100	4.5	245600	6.7
State Income												
At Current Prices		3823	12173	13.1	15102	24.1	17175	13.7	18837	9.7	21358	13.4
At Constant Prices		3823	5282	5.4	5365	2.0	5752	7.2	6165	7.2	6461	4.8
Per Capita National Income Rs.												
At Current Prices		1630	4964	10.0	5583	12.5	6249	11.9	7060	13.0	8237	16.7
At Constant Prices		1630	2213	2.5	2167	(-2.1)	2216	2.3	2292	3.4	2401	4.8
Per Capita State Income Rs.												
At Current Prices		1508	4200	11.7	5140	22.4	5768	12.2	6242	8.2	6983	11.9
At Constant Prices		1508	1815	4.1	1828	0.6	1932	5.8	2043	5.7	2113	3.4

Note: P - Provisional
Q - Quick Estimate

Source: (1) Department of Economics and Statistics.
(2) Central Statistical Organisation.
(3) Economic Survey - 1995-96.

State Income

2.5 During 1994-95 the state income at constant prices is estimated at Rs.6461 crores (Q. Estts) as against Rs.6165 crores (Provisional) in 1993-94 registering a growth rate of 4.8 per cent against the estimated 7.2 per cent growth in 1993-94. The State income at current prices has increased from Rs.18837 crores to Rs.21358 crores registering a growth rate of 13.4 per cent as compared to 9.7 per cent in 1993-94.

2.6 Per capita income of the state at current prices increased from Rs.6242 in 1993-94 to 6983 in 1994-95, showing an increase of 11.9 per cent in 1994-95 from 8.2 per cent in 1993-94. At constant prices per capita income is estimated at Rs.2113 during 1994-95 registering a growth rate of 3.4 per cent. The provisional estimates during 1993-94 was Rs.2043 with a growth rate of 5.7 per cent.

2.7 Although the per capita income of the State continues to remain below the national per capita income, the gap between the two has considerably narrowed down during the past few years. The National Income and State Income figures are given in Table 2.1.

Sectoral Distribution of Income

2.8 An analysis of sectoral share of state income shows that the share of primary sector to the State income at current prices has slightly decreased from 33.31 per cent in 1993-94 to 32.89 per cent in 1994-95. At the same time the share of secondary and tertiary sectors remained more or less same during this period.

2.9 At constant prices when the primary sector suffered a marginal fall i.e., 33.83 per cent in 1993-94 has come down to 32.33 per cent in 1994-95, the share of secondary and tertiary sectors increased marginally during this period. The yearly movement of the sectoral share of the state income at current and constant prices is given in table 2.2. The sectoral distribution of net domestic product of India is given in appendix 2.1 and that of Kerala in Appendix 2.2 and Appendix 2.3.

Regional Distribution of Income

2.10 The district wise distribution of State income under the three sectors at current and constant prices for the period from 1980-81 to 1994-95 is given in Appendix 2.4.

2.11 Ernakulam district continues to have the highest per capita income followed by Idukki and Thrissur. Per capita Income of Ernakulam district went up from Rs.9703 in 1993-94 to Rs.10824 in 1994-95. Though the per capita income of Malappuram increased by Rs.449 in 1994-95 it has the lowest income among the districts of Kerala. Per capita income of districts with their respective ranking from 1980-81 to 1994-95 is given in Table 2.3.

Regional Variation in sectoral Growth Rate

2.12 District wise growth rate of sectoral and total income at constant prices during 1994-95 is given in Table 2.4. As regards sectoral growth rates of income primary sector shows only marginal variation among the districts. Whereas secondary sector witnessed marked variation among the districts interse. During 1994-95 Thiruvananthapuram district registered higher growth rate (5.71%), followed by Ernakulam (5.49%), Alappuzha (5.47%) and Thrissur (5.12%) while the lowest growth rate was observed in Idukki (2.92%) followed by Wayanad (3.33%), Kasarkod (3.79%) and Malappuram (3.97%).

Unemployment

2.13 The number of unemployed persons registered with the employment exchanges has shown significant reduction in 1995 as compared to 1994-95, from 41.52 lakhs as on 31-3-1995 to 32.26 lakhs as on 31-12-1995. Of the unemployed, Thiruvananthapuram with 7.56 lakhs (23.43%) is on top followed by Kollam with 3.35 lakhs (10.40%), and Ernakulam 3.24 lakhs (10.06%). The sharp decline in the number of registrants with the live registers of the employment exchanges is a commendable achievement, which is undoubtedly the reflection of the policies and programmes followed in the previous years of the 8th Plan period. It may, however, be pointed out that the magnitude of the problem still remains large, requiring redoubled efforts to devise and implement such of those schemes to increase output and employment on a sustainable basis to find a lasting solution to the unemployment problem. The districtwise distribution of job seekers is given in Table 2.5

2.14 Data on distribution of job seekers by educational levels as on 31-12-1995 could not be given as the details were not readily available at the time of the final printing of the Economic Review. Data relating to the previous years is given in Appendix 2.6 and 2.7.

TABLE 2.3
District-wise per capita Income at constant and at current prices : 1980-81 to 1994-95

District	Constant Prices													Current Prices																
	1980-81	1990-91	1991-92	1992-93	1993-94	1994-95	1980-81	1990-91	1991-92	1992-93	1993-94	1994-95	1980-81	1990-91	1991-92	1992-93	1993-94	1994-95												
1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11	12	13					
1. Thiruvananthapuram	1484(6)	1842(7)	1786(6)	1955(4)	2075(4)	2165(4)	1484(6)	4220(8)	4925(8)	5708(6)	6256(5)	7039(5)	1484(6)	4220(8)	4925(8)	5708(6)	6256(5)	7039(5)	1484(6)	4220(8)	4925(8)	5708(6)	6256(5)	7039(5)	1484(6)	4220(8)	4925(8)	5708(6)	6256(5)	7039(5)
2. Kollam	1536(5)	1866(6)	1734(11)	1874(10)	1980(10)	2046(10)	1536(5)	4350(5)	4889(10)	5740(5)	6183(10)	6879(6)	1536(5)	4350(5)	4889(10)	5740(5)	6183(10)	6879(6)	1536(5)	4350(5)	4889(10)	5740(5)	6183(10)	6879(6)	1536(5)	4350(5)	4889(10)	5740(5)	6183(10)	6879(6)
3. Pathanamthitta	--	1981(4)	1832(5)	1919(7)	2040(6)	2114(6)	--	4408(4)	5056(5)	5590(9)	6032(8)	6770(8)	--	4408(4)	5056(5)	5590(9)	6032(8)	6770(8)	--	4408(4)	5056(5)	5590(9)	6032(8)	6770(8)	--	4408(4)	5056(5)	5590(9)	6032(8)	6770(8)
4. Alappuzha	1311(9)	1815(9)	1684(12)	1758(13)	1864(13)	1940(13)	1311(9)	4268(7)	4865(11)	5255(13)	5730(13)	6417(13)	1311(9)	4268(7)	4865(11)	5255(13)	5730(13)	6417(13)	1311(9)	4268(7)	4865(11)	5255(13)	5730(13)	6417(13)	1311(9)	4268(7)	4865(11)	5255(13)	5730(13)	6417(13)
5. Kottayam	1452(8)	1824(8)	1772(7)	1897(8)	2008(8)	2073(8)	1452(8)	4038(9)	4945(7)	5473(11)	5892(10)	6612(10)	1452(8)	4038(9)	4945(7)	5473(11)	5892(10)	6612(10)	1452(8)	4038(9)	4945(7)	5473(11)	5892(10)	6612(10)	1452(8)	4038(9)	4945(7)	5473(11)	5892(10)	6612(10)
6. Idukki	1995(2)	2095(2)	2116(2)	2101(2)	2211(2)	2246(2)	1995(2)	4612(2)	6073(2)	6433(2)	6772(3)	7535(2)	1995(2)	4612(2)	6073(2)	6433(2)	6772(3)	7535(2)	1995(2)	4612(2)	6073(2)	6433(2)	6772(3)	7535(2)	1995(2)	4612(2)	6073(2)	6433(2)	6772(3)	7535(2)
7. Ernakulam	2017(1)	2779(1)	2768(1)	2967(1)	3139(1)	3268(1)	2017(1)	6502(1)	8010(1)	8857(1)	9703(1)	10824(1)	2017(1)	6502(1)	8010(1)	8857(1)	9703(1)	10824(1)	2017(1)	6502(1)	8010(1)	8857(1)	9703(1)	10824(1)	2017(1)	6502(1)	8010(1)	8857(1)	9703(1)	10824(1)
8. Thrissur	1462(7)	1895(5)	1888(4)	1996(3)	2110(3)	2189(3)	1462(7)	4422(3)	5277(4)	5921(4)	6447(3)	7219(4)	1462(7)	4422(3)	5277(4)	5921(4)	6447(3)	7219(4)	1462(7)	4422(3)	5277(4)	5921(4)	6447(3)	7219(4)	1462(7)	4422(3)	5277(4)	5921(4)	6447(3)	7219(4)
9. Palakkad	1307(10)	1623(12)	1757(9)	1813(11)	1915(11)	1972(11)	1307(10)	3082(13)	4922(9)	5376(12)	5798(12)	6508(12)	1307(10)	3082(13)	4922(9)	5376(12)	5798(12)	6508(12)	1307(10)	3082(13)	4922(9)	5376(12)	5798(12)	6508(12)	1307(10)	3082(13)	4922(9)	5376(12)	5798(12)	6508(12)
10. Malappuram	1045(11)	1094(14)	1167(14)	1197(14)	1262(14)	1295(14)	1045(11)	2592(14)	3275(14)	3619(14)	3866(14)	4315(14)	1045(11)	2592(14)	3275(14)	3619(14)	3866(14)	4315(14)	1045(11)	2592(14)	3275(14)	3619(14)	3866(14)	4315(14)	1045(11)	2592(14)	3275(14)	3619(14)	3866(14)	4315(14)
11. Kozhikode	1588(3)	1670(10)	1742(10)	1936(5)	2046(5)	2117(5)	1588(3)	3949(10)	4837(12)	5936(3)	6430(4)	7179(3)	1588(3)	3949(10)	4837(12)	5936(3)	6430(4)	7179(3)	1588(3)	3949(10)	4837(12)	5936(3)	6430(4)	7179(3)	1588(3)	3949(10)	4837(12)	5936(3)	6430(4)	7179(3)
12. Wayanad	--	1999(3)	1762(8)	1928(6)	2038(7)	2076(7)	--	4301(6)	4967(6)	5707(7)	6010(9)	6724(9)	--	4301(6)	4967(6)	5707(7)	6010(9)	6724(9)	--	4301(6)	4967(6)	5707(7)	6010(9)	6724(9)	--	4301(6)	4967(6)	5707(7)	6010(9)	6724(9)
13. Kannur	1571(4)	1665(11)	1830(3)	1890(9)	1995(9)	2057(9)	1571(4)	3872(11)	5364(3)	5626(8)	6077(7)	6818(7)	1571(4)	3872(11)	5364(3)	5626(8)	6077(7)	6818(7)	1571(4)	3872(11)	5364(3)	5626(8)	6077(7)	6818(7)	1571(4)	3872(11)	5364(3)	5626(8)	6077(7)	6818(7)
14. Kasargodu	--	1559(13)	1652(13)	1803(12)	1902(12)	1948(12)	--	3659(12)	4663(13)	5487(10)	5850(11)	6598(11)	--	3659(12)	4663(13)	5487(10)	5850(11)	6598(11)	--	3659(12)	4663(13)	5487(10)	5850(11)	6598(11)	--	3659(12)	4663(13)	5487(10)	5850(11)	6598(11)
State	1508	1615	1828	1932	2043	2113	1508	4200	5140	5768	6242	6983	1508	4200	5140	5768	6242	6983	1508	4200	5140	5768	6242	6983	1508	4200	5140	5768	6242	6983

Figures in bracket show ranks

TABLE - 2.4

Growth Rate of District Income during 1994-95 (at 1980-81 prices)

(Per cent)

Sl.No.	District	Primary	Secondary	Tertiary	Total
1	2	3	4	5	6
1.	Thiruvananthapuram	0.06	7.75	7.52	5.71
2.	Kollam	0.39	6.70	7.38	4.71
3.	Pathanamthitta	0.11	8.52	7.76	5.04
4.	Alappuzha	0.23	8.00	7.16	5.47
5.	Kottayam	0.05	8.80	7.42	4.64
6.	Idukki	0.14	5.86	7.13	2.92
7.	Eranakulam	0.30	5.46	8.29	5.49
8.	Thrissur	0.14	6.23	7.55	5.12
9.	Palakkad	0.04	7.65	6.83	4.35
10.	Malappuram	0.18	6.94	6.97	3.97
11.	Kozhikode	0.37	7.43	6.81	4.87
12.	Wayanad	0.02	9.53	7.40	3.33
13.	Kannur	0.09	7.16	6.88	4.45
14.	Kasarkod	0.15	7.71	6.77	3.79
State		0.17	6.89	7.37	4.81

TABLE 2.5

District wise Distribution of job seekers as on 31-12-1995

Sl.No.	District	No.	Per cent
1	2	3	4
1.	Thiruvananthapuram	756015	23.43
2.	Kollam	335412	10.40
3.	Pathanamthitta	118771	3.68
4.	Alappuzha	256524	7.95
5.	Kottayam	207629	6.44
6.	Idukki	89977	2.79
7.	Eranakulam	324360	10.06
8.	Thrissur	247170	7.66
9.	Palakkad	187011	5.78
10.	Malappuram	147009	4.56
11.	Kozhikode	248867	7.72
12.	Wayanad	55993	1.74
13.	Kannur	194349	6.02
14.	Kasarkod	57218	1.77
Total		3226305	100.00

Source: Directorate of Employment and Training.

TABLE 2.6
Placement through Employment Exchange

Year	No. of Placement	Monthly average No. of Employers using Employment Exchange
1985-86	13700	403
1986-87	15571	454
1987-88	13869	492
1988-89	15504	473
1989-90	17514	441
1990-91	14280	540
1991-92	15640	392
1992-93	17890	404
1993-94	13828	492
1994-95	18305	412

Source : Directorate of Employment and Training.

TABLE 2.7
Self Employment Assistance Scheme

Year (at the end of December)	Applications received (no)	No. of Beneficiaries	Amount disbursed (Rs. in lakhs)
1	2	3	4
1987	18241	1042	6.25
1988	13556	13248	79.48
1989	10042	4965	29.79
1990	10127	4665	27.99
1991	10279	2653	15.92
1992	-	45	0.27
1993	6382	100	0.60
1994	2802	5741	34.45

Source: Directorate of Employment and Training.

CHAPTER - 3

PRICES, COST OF LIVING AND WAGES

Wholesale prices

Unlike in the previous year, during the year under review, the wholesale price index of agriculture commodities showed a sharp increase. The index increased by 224.5 points from 1466 to 1690.5 during January to October 1995 compared to the corresponding period in 1994, registering a marked increase of 15.31%. Such an increase was witnessed in the case of all the commodities, barring molasses. While the price index of molasses decreased by 17.09%, that of plantation crops went up by 34.15%, rice by 26.76%, fruits and vegetables by 17.32%, condiments and spices by 14.06% and oil seeds by 3.68%. Compared to non - food crops (9.74%), the increase in price index was comparatively more in the case of food crops (19.25%). In 1994, when the price index of condiments and spices fell by 6.10% compared to the previous year, during the first ten months from January to October 1995 the index went up by 14.06% compared to the corresponding period of previous year. After a sharp rise in 1993 (55%) the price index of molasses declined by 1.2% in 1994 and by 17.09% during the first ten months from January to October 1995. The price index which stood at 1377.1 points in 1992 shot up to 1549.7 points in the 1993, decreased to 1491.7 points in 1994, but sharply rose afterwards and touched an all time high of 1690.5 points during the first ten months from January to October 1995. Thus, a disturbing trend observed was that, excepting molasses, the general price level ruled high among various brands of commodities, moving with in a narrow range during 1995 compared to that in 1994 when the indices of certain commodities were very low (see table 3.1). The trend of wholesale price indices of agricultural commodities in Kerala since 1986 is shown in Fig-3.1.

3.2. The month-wise analysis show that price indices of all crops put together witnessed a mixed trend during the period under review, with the lowest (1657.1) recorded in April and the highest (1741.1) in October 1995. The indices for individual crops also showed more or less the same trend, but for rice which maintained a steady rate at 1161.9 in all the ten months. The price index of molasses showed a very erratic trend, which moved down from 1511.9 points in January

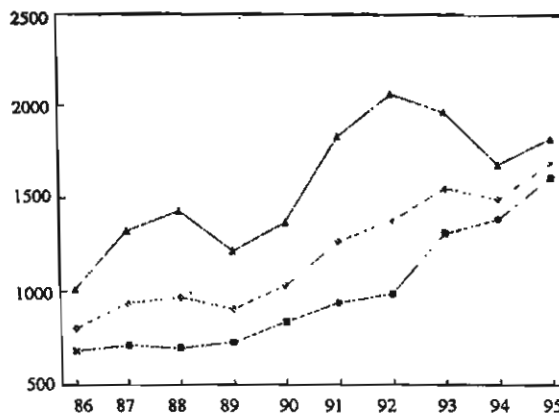


Fig 3.1 Trend of Wholesale price indices of Food Crops, Non-Food Crops and All Crops

to 1417.7 points in March. Afterwards the index moved up without any definite trend reaching an all time high of 1523.7 points in September and then steeply declined to reach a low of 1440.5 in October, 1995. The index of condiments and spices which moved up gradually from 1734.5 points in January 1995 to 2658.9 in June declined to 1645.4 in October, the lowest during the period under review. While the index of fruits and vegetables showed a general up-trend, the index of oil seeds showed declining trend from January to July and then a tendency to rise till the end of the year. The price index of plantation crops which stood at 1405.4 in January 1995 went up gradually to 1556.6 in June and then came down to 1479 in October. The month-wise wholesale price indices of agricultural commodities during the first ten months from January to October 1995 are given in Appendix 3.1.

Retail prices

3.3 On analysing the retail prices of 22 essential commodities it is observed that excepting for the prices of blackgram, banana, egg, sugar and electric bulb, prices of all other commodities showed moderate to relatively large increases during the period. The prices of dhal, potato and onion which showed downward trend in 1994 showed a rising trend in 1995 with significant increases in the price index of onion (88%), dhal (64%), dry chillies (38%), corriander (29%), firewood (25%), baby food (22%) and green gram (17%). Details are given in Table 3.2. After a severe setback in 1993, the prices of coconut oil and coconut which showed a declining trend in the

Table 3.1
Wholesale Price Index of Agricultural Commodities 1991 - 95

(Base 1952 - 53 = 100)

Crops	Weight	Wholesale Price Index					% Change over previous year				
		1991	1992	1993	1994	1994*	1995*	1992	1993	1994*	1995*
A. Food Crops	63.5	936.1	983.6	1310.3	1384.0	1353.6	1614.1	5.07	33.22	5.82	19.25
Rice	40.4	638.1	638.1	837.1	957.4	918.6	1181.9	Nil	31.19	14.37	28.76
Condiments & Spices	10.4	1542.4	1688.4	1894.5	1778.9	1786.9	2038.1	9.47	12.21	-8.10	14.06
Fruits & Vegetables	10.7	1449.3	1570.5	2434.2	2533.7	2502.3	2935.7	8.36	55.00	4.09	17.32
Molasses	2.0	1061.2	1161.0	1802.7	1781.1	1767.6	1465.6	9.41	55.27	-1.20	-17.09
B. Non- Food Crops	38.5	1832.0	2061.6	1968.2	1678.9	1661.5	1823.3	12.53	-4.63	-14.61	9.74
Oil Seeds	25.5	2240.1	2543.3	2367.8	1914.9	1906.7	1976.8	13.54	-6.90	-19.13	3.68
Plantation Crops	11.0	888.1	948.1	1037.9	1133.7	1094.7	1488.5	6.76	9.47	9.23	34.15
C. All Crops	100.00	1263.1	1377.1	1549.7	1491.7	1466.0	1690.5	9.03	12.53	-3.74	15.31

Source : Department of Economics and Statistics, Government of Kerala

* Average from January to October (10 months) only

first half of the year picked up in the latter half sending positive signals to the farming community in general. The price of sugar which was Rs. 9.66 rose to Rs.13.09 in 1993 and then declined to Rs.12.83 in 1994 and further to Rs.12.60 in 1995.

3.4. The month-wise details of prices showed rather moderate to heavy fluctuations in respect of most of the commodities. The prices of baby food and mutton witnessed more or less steady increases. The price of baby food rose from Rs.85 in January to Rs.103.29 in December,

registering an increase of 22%. The month - wise retail prices of essential commodities are given in Appendix 3.2.

Consumer Price Index

3.5 Consumer price index, a broad indicator of inflationary trend, for agricultural and industrial workers, increased by 86 points from 671 points in 1994 to 757 points in 1995 registering an increase of 13%. The index was the highest in Meppady (791), followed by Malappuram (787)

Table 3.2
Average Retail Price of Essential Commodities 1991 - 95

(Rupees)

Commodities	Unit	Prices as the end of December					% Changeover previous year.				
		1991	1992	1993	1994	1995	1992	1993	1994	1995	
1	2	3	4	5	6	7	8	9	10	11	
1. Rice	Kg	6.99	7.69	7.61	9.47	9.78	10.01	-1.04	24.44	3.27	
2. Greengram	"	11.99	14.20	15.52	18.48	21.54	18.43	9.30	19.07	16.56	
3. Blackgram	"	13.85	13.89	13.95	28.92	27.33	0.29	0.43	107.31	-5.50	
4. Redgram	"	9.34	10.25	14.06	14.13	15.06	9.74	37.17	0.50	6.58	
5. Dhal	"	20.28	19.53	20.96	20.14	33.03	-3.70	7.32	-3.91	64.00	
6. Coconut Oil	"	56.04	51.94	37.02	38.35	44.30	7.32	-28.73	3.59	15.52	
7. Groundnut Oil	"	44.46	40.61	39.45	43.71	45.31	-8.66	-2.86	10.80	3.66	
8. Refined Oil	"	65.18	62.27	58.75	59.48	64.84	-4.47	-5.65	1.24	9.01	
9. Tapioca	"	2.16	2.71	2.81	3.04	3.52	25.46	3.69	8.19	15.79	
10. Banana (Green)	"	6.64	6.90	7.24	8.46	8.29	3.92	4.93	16.85	-2.01	
11. Milk (Cow)	Ltr	6.75	7.68	7.82	8.79	9.75	13.78	1.82	12.40	10.92	
12. Egg. (Hen)	Dozen	10.57	13.02	13.93	14.40	14.21	23.18	6.99	3.37	-1.32	
13. Potato	Kg.	5.79	4.55	7.96	7.25	7.36	-21.42	74.95	-8.92	1.52	
14. Coriander	Kg.	17.61	18.39	19.39	19.42	25.11	4.43	5.44	0.16	29.30	
15. Chillies	Kg.	54.14	45.48	24.14	46.33	64.00	-16.00	-46.92	91.92	38.33	
16. Onion	Kg.	4.26	6.99	8.25	6.68	12.54	64.09	18.03	-19.03	87.72	
17. Sugar	Kg.	8.46	9.66	13.09	12.83	12.60	14.18	35.51	-1.99	-1.79	
18. Coconut (without Husk)	100 Nos.	472.14	478.49	351.79	374.17	413.57	1.35	-26.48	6.36	10.53	
19. Firewood (Local split)	Qtl	72.50	84.29	84.38	102.53	128.33	16.26	0.11	21.51	25.16	
20. Washing Soap (Sunlight)	Each	4.48	5.00	5.30	5.59	5.82	11.61	6.00	5.47	4.12	
21. Electric Bulb	Each	8.21	8.95	9.52	9.64	9.51	9.01	6.37	1.26	-1.35	
22. Baby food	Kg.	74.08	81.50	82.00	85.00	103.29	10.02	0.61	3.66	21.52	

Source : Department of Economics & Statistics, Government of Kerala

and Kannur (770). The lowest index was registered at Punalur (704). See Table 3.3. The trend of consumer price indices in Kerala since 1985 together with their variations over the preceding years are given in Fig. 3.2. The month-wise consumer price index for selected 15 centres are given in Appendix 3.3. In all centres, the indices are on increase from month to month.

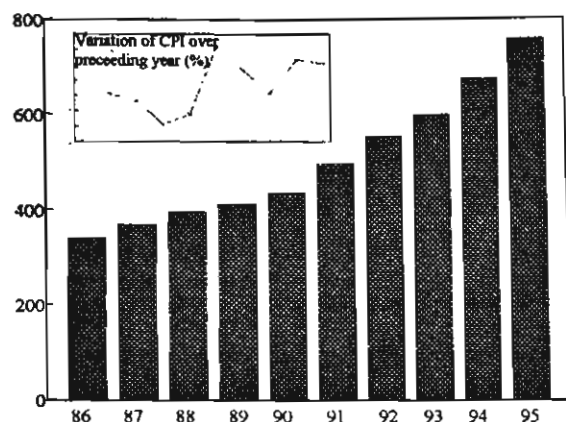


Fig. 3.2 Trend of Consumer Price Indices (CPI) and their variations over preceding year

Parity Index

3.6 In 1995, the parity index, a measure of prices received by farmers over the prices paid by farmers, went up by one point from 77 in 1994 to 78 in 1995. During the year under review, when the prices received by farmers increased by 13% the prices paid by farmers increased only by 11%. This shows that even though the cost of living index has been unfavourable to the consumers in general, the farming community stood to gain, which would help in boosting their morals to a certain extent. The parity from 1986 to 1995 are furnished in Table 3.4

Farm Commodity Prices

3.7 Average farm prices of important agricultural commodities in Kerala generally ruled high during 1994-95 except in the case of coconut which has remained far below the expectations throughout the year. The maximum increase was recorded in the case of ginger (83%) followed by pepper (71%). Although the decreases in the average prices of coconut for the year 1994-95 was only 6% during the peak harvesting months, it came

Table 3.3
Annual Average Consumer Price Index Numbers in Selected Centres of Kerala 1991-95
(Base 1970=100)

Centres	Consumer Price Index numbers						% Change over previous Year				
	1991	1992	1993	1994	1994*	1995*	1992	1993	1994	1995	
	1	2	3	4	5	6	7	8	9	10	11
Thiruvananthapuram	498	552	596	673	668	758	10.84	7.97	12.92	13.47	
Kollam	515	571	615	687	684	769	10.87	7.71	11.71	12.43	
Punalur	488	544	586	640	637	704	11.48	7.72	9.22	10.52	
Alappuzha	493	552	599	676	672	759	11.97	8.52	12.86	12.95	
Kottayam	500	555	599	676	672	759	11.00	7.93	12.86	12.95	
Mundakkayam	497	552	599	675	671	749	11.07	8.52	12.69	11.62	
Munnar	487	541	590	667	664	731	11.09	9.06	13.05	10.09	
Eranakulam	481	540	589	658	656	731	12.27	9.07	11.72	11.43	
Chalakyudy	499	559	608	687	683	770	12.02	8.77	12.99	12.74	
Thrissur	482	539	587	668	663	758	11.83	8.91	13.80	14.33	
Palakkad	486	543	591	675	670	766	11.73	8.84	14.21	14.33	
Malappuram	516	572	617	696	692	787	10.85	7.87	12.80	13.73	
Kozhikode	501	553	597	668	664	749	10.38	7.96	11.89	12.80	
Meppady	513	565	611	695	690	791	10.14	8.14	13.75	14.64	
Kannur	499	554	602	680	676	770	11.02	8.66	12.96	13.91	
State Average	497	553	599	675	671	757	11.27	8.32	12.69	12.82	

Source : Department of Economics and Statistics, Government of Kerala

* Average from January to November (11 Months) only

Table 3.4
Index Numbers of Prices Received and Prices Paid by Farmers

(Base 1952-53 = 100)

Year	Price received by farmers	Farm Cultivation cost	Domestic expenditure	Price paid by farmers	Parity as col.2 to col.5
1	2	3	4	5	6
1986	921	1299	745	984	93
1987	1063	1413	804	1066	100
1988	1044	1520	860	1143	91
1989	1017	1604	897	1200	85
1990	1072	1728	945	1277	84
1991	1315	1910	1078	1435	92
1992	1486	2255	1202	1646	90
1993	1494	2579	1303	1834	82
1994	1582	2891	1464	2057	77
1995*	1787	3216	1620	2283	78

Source : Directorate of Economics & Statistics, Government of Kerala

* Average upto August 1995

down as low a level as Rs. 250 per one hundred nuts. In spite of operating a market intervention scheme (with a support price of Copra Rs. 2350 per qtl.) for copra in an unprecedented scale with a procurement of over 55000 tonnes the price situation could not be improved. The tendency for coconut price falling below remunerative levels and persisting for considerably long periods particularly when the prices of other commodities were showing upward trends would put the rural economy of Kerala in dire straits. Another noteworthy feature of the price trend during 1994-95 was the increase in the prices of cashewnut in spite of withdrawal of the monopoly procurement of the commodity by the Government.

Data on trend of prices during the last six years are given in table 3.5

Public Distribution System

3.8 The Public Distribution System (PDS) in the state was introduced under the provisions of Essential Commodities Act 1955 through the Kerala Rationing order 1966. It plays an important role in ensuring the availability of essential commodities and price stability. The public Distribution System in Kerala is well within the reach of almost all households in the State through a well designed network of ration shops. This is quite important for a consumer state like Kerala deficient in foodgrains and other essential commodities.

3.9 As soon 30-9-1995 there were 14172 authorised retail outlets for the distribution of rationed articles. At present, a ration norm of 250

Table 3.5
Average Farm Prices of Principal Crops

Commodity	Unit	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	Percentage increase during 1994-95 over 1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Paddy	Rs./Qtl	291.89	299.61	374.76	420.80	414.53	494.86	19.4
Tapioca	"	138.69	150.33	157.68	187.34	197.60	217.13	9.9
Coconut	Rs./100 Nos	203.82	301.23	393.25	420.14	325.55	307.83	-5.4
Pepper	Rs./Qtl	3473.06	3229.85	2950.05	2616.59	3909.02	6687.43	71.1
Ginger	"	2192.89	2523.55	2177.95	2490.50	2858.06	5250.29	83.7
Cashewnut	"	1162.27	1330.75	2037.74	2000.41	2134.34	2355.36	10.4
Sugarcane	Rs./M.T	340.97	376.35	365.49	354.41	440.00	546.23	24.1
Areca nut	Rs./100 Nos.	14.59	26.49	31.57	33.01	33.65	36.73	9.2
Banana	"	70.05	75.41	80.77	93.89	108.56	125.70	15.8

cards per outlets is adopted for sanctioning new outlets by delinking the cards from existing nearby authorised retail distributors having more than 300 ration cards. On an average, there is one outlet for every 405 card holders covering a population of 283.4 lakh with 228.1 lakh adults and 55.3 non-adults as shown in table 3.6

3.10 Government of India allots rice, wheat, sugar and kerosine oil in every month in advance for distribution to the card holders. The allotments of rice, wheat, sugar and kerosine from the central pool for the year 1995 is given in the table 3.7.

3.11 The Government is closely monitoring the price situation and availability of all essential commodities. The meeting of the Food Advisory Committees at State, district, taluk and panchayat levels are being conducted regularly to monitor the price situation and distribution of all essential commodities. Moreover, monitoring cells and surprise squads headed by District Collectors are conducting raids and surprise inspections in order to curb malpractices. People's Assembly (Janakeeya Sabha) along with Taluk Sabha is conducted to deal with grievances of public sector officials who are attending to the complaints received in the Sabha.

3.12 In the light of the Government decision to make available pulses, spices etc. at reasonable price a scheme was initially implemented in the three cities of Thiruvananthapuram, Kochi and Kozhikode through 150 outlets from 2-12-1987 which was extended to other parts of the State through ARDs, co-operative outlets etc. Now there are 3161 outlets comprising 2418 selected ARDs and 743 selected co-operatives for distributing those commodities. Government have decided in principle to have two Maveli Stores in each Community Development Blocks in the State. At present 652 Maveli stores inclusive of 19 Super Maveli Stores, 10 Super Markets 2 Mini Super Markets and 25 mobile maveli stores are functioning in the State.

3.13 With a view to providing food stuffs of good quality at reasonable rate, it was decided to open one Annapporna hotel each in every assembly constituency. At present 120 Annapporna hotels are functioning and action is being taken to open the remaining ones.

3.14 The State Commission and 14 District Fora are functioning effectively to ensure the protection of consumers interest and to provide an affective and speedy redressal to their complaints against unfair trade practices and defective goods.

Table - 3.6
Public Distribution System in Kerala - A Profile 1995

Sl.No.	Item	Unit	1990	1991	1992	1993	1994	1995*
1	2	3	4	5	6	7	8	9
1.	No of Ration cards & Permits.							
	a. Ration cards for families	in lakhs	50.5	50.4	53.4	54.7	55.7	56.5
	b. Ration permits for Institution	No.	9016	9041	9882	11229	11950	13557
2.	No. of FCI sub depots Including main depots	No.	39	39	39	39	39	39
3.	No. of wholesale shops							
	a. Co-operatives	No.	50	49	49	49	49	50
	b. Others	No.	246	249	249	249	259	266
	c. Total wholesale shops	No.	296	298	298	298	308	316
4.	No. of retail shops							
	a. Co-operatives	No.	1193	1174	1161	1134	1095	1083
	b. Others	No.	11814	11876	11996	12191	12780	13089
	c. Total retail shops	No.	13007	13050	13157	13325	13875	14172
5.	Quantity of coarse cloth (Alloted)	MT	..	..	..	..	..	..
6.	Sugar (Alloted) (in MTs.)	MT	150853	140112	138398	154761	143423	150427
7.	Palmolein Oil (in MTs.)	MT	40500	2900	..	..	..	..
8.	Kerosine (in K.L.)	KL	338462	334446	341036	342488	350946	359554

* As on 30-09-1995

Source : Directorate of Civil Suppliers.

Table 3.7
Allotment of rice, wheat, sugar and kerosine oil for 1996

Month	rice (in Tonnes)	wheat (in Tonnes)	sugar (in Tonnes)	kerosine oil (in K. Tonnes)
1	2	3	4	5
January	150000	35000	11958.7	28948
February	150000	35000	11958.7	28948
March	150000	35000	11960.0	28948
April	150000	35000	11960.0	29430
May	150000	45000	11966.0	29430
June	150000	45000	11960.6	29430
July	150000	45000	11967.8	29430
August	150000	65000	17360.6	29930
September	150000	50000	12558.6	31265
October	150000	50000	12258.6	31265
November	150000	50000	12258.6	31265
December	150000	50000	12258.6	31265
Total	1800000	540000	150426.8	359554

Source: Directorate of Civil Supplies

Wages:

As witnessed in the previous years, during the year under review also wages went up. Among the skilled workers in Agriculture sector, wages of carpenter rose from Rs. 76.49 in 1994 to Rs. 87.44 in 1995 and that of mason from Rs. 76.57 to Rs. 87.00 registering increases of 14.3% and 13.6% respectively. When the wages of male or a skilled worker in Agriculture sector showed an increase of 17.1% in 1995 that of female workers registered a still higher rate of increase at 18.12%. More or less similar has been the situation with regard to the wages of construction workers. Average daily wage rates in Agriculture sector and construction sector are given in Table 3.9 to Table 3.12.

Table 3.8
DISTRIBUTION OF RICE AND WHEAT THROUGH THE PUBLIC DISTRIBUTION SYSTEM IN KERALA 1990-1995

Month 1995	rice distributed (Qty. in MT)						wheat distributed (Qty. in MT)					
	1990	1991	1992	1993	1994	1995	1990	1991	1992	1993	1994	
1	2	3	4	5	6	7	8	9	10	11	12	13
January	95419	124964	133058	132201	145119	99847	17847	21773	20241	14362	16995	31489
February	9970	117262	157474	119231	90244	92694	12963	21787	23752	14470	15084	25082
March	118192	131806	154983	132886	77297	91143	17087	24000	17096	17123	18902	27954
April	124854	136882	135277	136899	73724	82232	14664	26062	14347	12586	16973	27927
May	121475	145847	153477	130125	79995	92286	17660	29885	12310	14910	20854	34538
June	128522	137330	154506	126017	91122	89331	18622	32019	20189	16846	22890	32779
July	147936	148720	166985	137251	98923	102202	20067	304031	17837	20069	26797	36067
August	137862	193624	175579	189578	110111	109723	20206	31063	17101	18620	26600	45136
September	107638	147792	171574	109698	111753	94352	14746	29021	8600	21380	26887	39436
October	114444	146478	138772	136340	82306	89143	14828	28715	19660	27401	33108	43519
November	124987	155836	132226	139837	85057	..	14981	31218	15974	20881	30762	..
December	141102	163916	130331	156755	107325	..	17557	28492	17463	19982	35529	..
Total	1462001	1750457	1804240	1646819	1152975	942953	201228	334438	3204569	218630	219380	343926

Source : Directorate of Civil Supplies.

Table 3.9
Average Daily Wage Rates of Skilled Workers in Agricultural Sector

(Rupees)

Year	Average daily wage rates		% change over previous year	
	Carpenter	Mason	Carpenter	Mason
1980-81	19.82	19.78	..	..
1981-82	22.42	22.50	13.12	13.75
1982-83	23.40	23.52	4.37	4.53
1983-84	26.17	26.22	11.84	11.48
1984-85	38.74	38.69	48.03	47.56
1985-86	42.84	42.80	10.58	10.62
1986-87	45.93	45.93	7.21	7.31
1987-88	47.50	47.21	3.42 *	2.79
1988-89	49.80	49.55	4.84	4.96
1989-90	51.82	51.45	4.06	3.83
1990-91	54.47	53.98	5.11	4.92
1991-92	59.00	58.55	8.32	8.47
1992-93	68.28	67.63	15.73	15.51
1993-94	76.49	76.57	12.02	13.22
1994-95	87.44	87.04	14.32	13.62

Source : Department of Economics and Statistics, Government of Kerala

Table 3.10

Average Daily Wage Rates of Unskilled Workers in the Agriculture Sector.

(Rupees)

Year	Average daily wage rates of Paddy field workers		% change over previous year	
	Male	Female	Male	Female
	1	2	3	4
1980-81	11.13	7.91	..	..
1981-82	12.74	8.83	14.47	11.63
1982-83	13.29	9.55	4.32	8.15
1983-84	15.86	11.02	19.34	15.39
1984-85	23.60	11.89	48.80	7.90
1985-86	26.08	15.10	10.51	27.00
1986-87	28.36	16.39	8.74	8.54
1987-88	30.36	17.68	7.05	7.87
1988-89	31.95	18.59	5.24	5.15
1989-90	33.31	19.63	4.26	5.59
1990-91	35.77	21.11	7.39	7.54
1991-92	41.38	26.12	15.16	23.73
1992-93	48.40	32.31	16.97	23.70
1993-94	54.26	35.49	12.11	9.84
1994-95	63.53	41.92	17.08	18.12

Source: Department of Economics and Statistics, Government of Kerala

Table 3.11
Average Daily Wage Rates of Skilled Workers in the Construction Sector

(Rupees)

Year	carpenter	Mason	Rural	Urban
	1	2	3	4
1980-81	18.66	19.33	18.75	19.36
1981-82	22.52	22.87	22.66	23.01
1982-83	27.99	30.68	28.15	30.80
1983-84	33.43	35.00	33.29	35.12
1984-85	36.71	37.97	36.65	38.03
1985-86	40.91	40.67	41.10	42.01
1986-87	43.90	45.39	44.24	45.91
1987-88	49.30	50.08	49.32	50.04
1988-89	51.08	51.92	51.17	52.00
1989-90	94.00	54.00	54.00	54.00
1990-91	57.00	56.00	56.00	56.00
1991-92	60.00	61.00	59.00	61.00
1992-93	68.89	70.92	60.07	70.23
1993-94	73.57	76.51	72.75	75.98
1994-95	79.39	84.35	79.09	83.98

Source: Department of Economics and Statistics, Government of Kerala

* Provisional

Table 3.12

Average Daily Wage Rates of Unskilled Workers in the Construction Sector

(Rupees)

Year	Men		Women	
	Rural	Urban	Rural	Urban
	1	2	3	4
1980-81	12.30	13.07	9.62	10.22
1981-82	15.22	15.94	11.40	12.22
1982-83	17.85	19.09	13.53	14.44
1983-84	20.29	21.18	14.81	16.10
1984-85	21.90	22.80	16.37	17.38
1985-86	25.31	25.70	19.08	19.42
1986-87	27.66	28.42	21.05	21.93
1987-88	31.31	32.23	23.26	25.34
1988-89	32.92	33.55	25.32	26.79
1989-90	34.15	34.94	26.88	28.26
1990-91	37.00	37.00	30.00	28.78
1991-92	39.71	41.63	31.64	34.32
1992-93	46.34	48.66	37.23	39.38
1993-94	50.36	52.85	40.89	42.80
1994-95	56.20	61.20	46.41	49.80

Source: Department of Economics and Statistics, Government of Kerala

CHAPTER - 4
AGRICULTURE

The performance of agricultural sector in Kerala in the recent past evokes mixed feelings. Despite the fact that the growth rate has been positive during the four years from 1990-91 to 1993-94, it lacked consistency and the vacillating trend in growth is still persisting. Though the growth rate recorded during 1993-94 was 6.08 percent, the average for the last 3 years is at a low level of 2.2 percent. This is in spite of the very favourable rainfall received by the State during the last four years in succession, thereby exposing the systemic weakness of the agriculture scenario of the State which is unable to acquire the required resilience in agricultural production to the extent desired.

Rainfall

4.1 Kerala received on an average less than normal rainfall during 1995. The rainfall received lower than normal in all the 3 seasons but the deficiency was significant during the North East Monsoon. In a State like Kerala where perennial crop dominates the spread of the rainfall throughout the year particularly during the Summer months is more critical in deciding the agricultural fortunes. Among the districts Ernakulam received the

Table 4.1
Percentage Departure of Rain fall
(1984 to 1995)

Year	Annual	South West Monsoon	North East Monsoon
(1)	(2)	(3)	(4)
1984	-13	-13	-30
1985	-8	-17	-26
1986	-51	-21	-20
1987	-55	-31	30
1988	-15	-1	-64
1989	-30	-9	-18
1990	-28	-25	-4
1991	-39	18	-21
1992	-37	15	35
1993	-08	-12	32
1994	11	15	13
1995	-6	-6	-22

Source : Meteorological Centre :
Thiruvananthapuram

maximum rainfall of 3592.7 mm while the lowest (1546.1) was in Trivandrum district. See Fig. 4.1

4.2 Data on rainfall along with the percentage departure from normal and the district-wise distribution are given in tables 4.1 to 4.3.

Table 4.2
Monthwise- Distribution of normal rainfall and average rainfall for last 10 years (in mm)

Month	Normal Rainfall	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	Deviation from normal rainfall during 1995
1	2	3	4	5	6	7	8	9	10	11	12	13
January	15.64	4.1	0.3	1	6	15	14	3.4	0.0	32.5	11.01	-4.63
February	16.21	15.0	0.7	19	0	5	6	1.0	18.1	31.0	7.17	-9.04
March	37.14	5.3	3.5	19	19	17	34	0.1	21.0	20.3	41.31	+4.17
April	109.78	65.3	57.6	144	107	42	98	44.8	70.6	145.7	173.62	+63.84
May	252.42	122.7	118.8	142	153	489	119	226.1	169.5	151.9	348.52	+96.10
June	711.35	264.4	559.0	585	725	603	1084	813.3	688.8	836.2	531.75	-179.60
July	720.71	318.2	187.8	608	577	652	837	802.3	804.6	941	719.82	-0.89
August	433.31	349.7	394.2	427	354	349	471	503.6	293.2	478.9	458.17	+24.86
September	248.57	261.7	150.7	498	294	106	50	296.5	91.7	205.8	293.29	-44.72
October	297.28	156.3	261.2	76	313	326	291	318.4	442.7	448.5	208.16	-89.12
November	162.71	200.8	214.3	79	87	174	100	338.7	169.1	163.7	180.59	+17.88
December	42.35	8.9	91.6	25	7	2	3	4.8	49.3	42.5	0.10	-42.25
Total	3047.87	1772.4	2039.7	1653	2642	2780	3106	3353	2818.6	3497.9	2973.51	-74.36
Average	253.98	147.7	169.98	221	220	232	259	279.41	234.9	291.5	247.79	-6.19

Source: Meteorological Centre : Thiruvananthapuram.

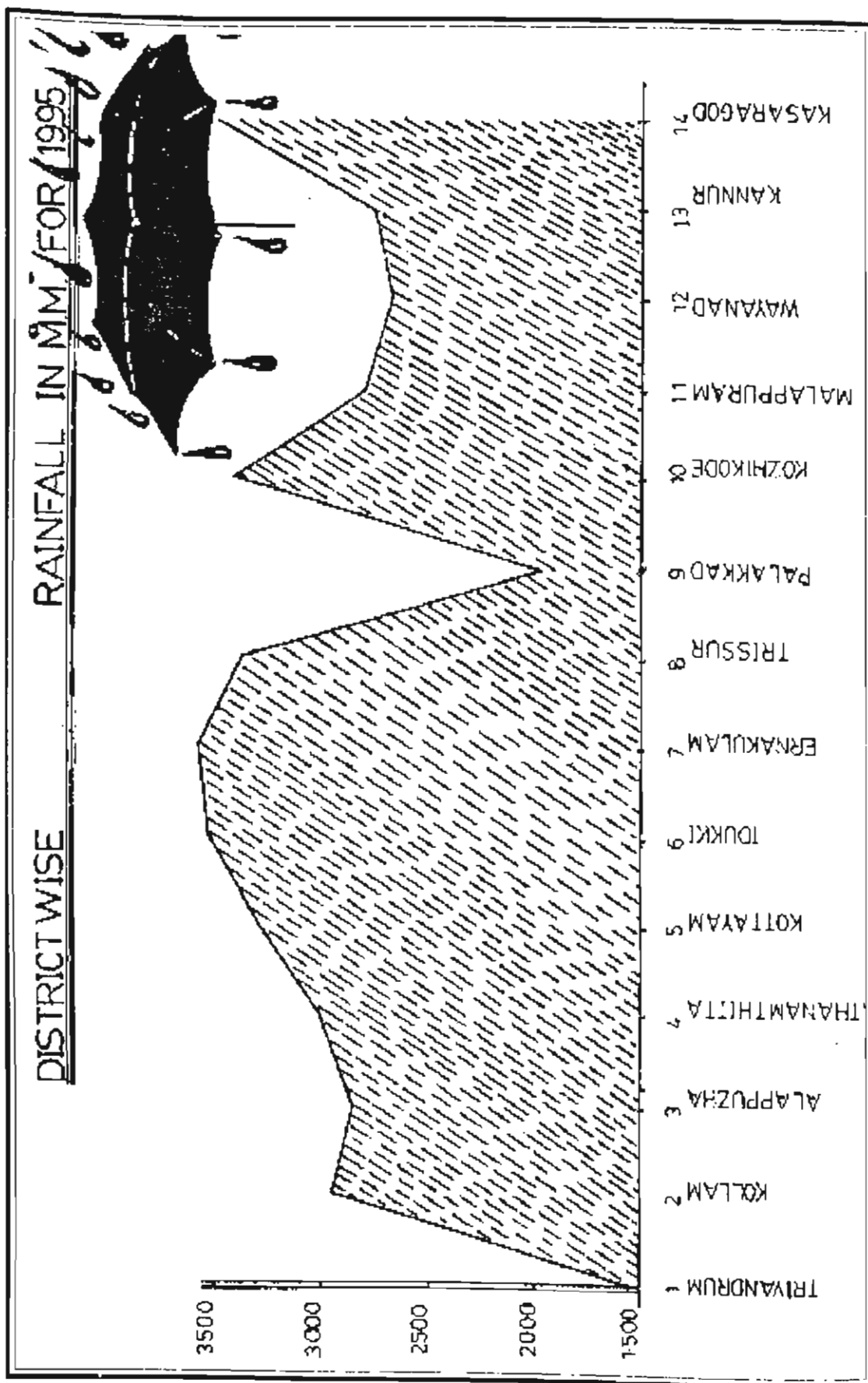


Fig. 4.1

Table 4.3
District-wise Monthly rainfall in mm for 1995

NO.	District	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Thiruvananthapuram	14.3	3.4	34.3	146.3	320.5	215.0	164.8	98.8	118.4	208.7	220.2	1.4
2.	Kollam	77.9	23.4	153.5	217.5	405.2	356.7	460.0	383.5	264.6	308.2	317.5	0.0
3.	Alappuzha	11.8	19.5	85.4	186.9	325.6	503.1	526.1	392.6	354.8	216.4	161.0	0.0
4.	Pathanamthitta	0.0	30.0	49.7	282.6	374.2	425.4	553.7	493.7	303.6	252.9	263.0	0.0
5.	Kottayam	3.4	0.0	96.3	217.8	490.9	540.8	624.2	563.6	395.1	233.7	188.5	0.0
6.	Idukki	30.5	9.8	66.0	209.6	410.5	566.3	718.5	659.3	478.5	178.9	226.9	0.0
7.	Ernakulam	8.7	6.6	69.6	156.0	471.6	615.5	764.4	570.3	358.7	331.6	239.7	0.0
8.	Thrissur	0.1	0.0	11.3	114.0	504.0	654.9	834.4	518.0	304.6	196.1	124.8	0.0
9.	Palakkad	1.6	0.4	11.3	61.8	166.7	357.2	588.6	277.6	242.3	103.2	156.5	0.0
10.	Kozhikode	2.3	0.2	0.0	133.0	250.8	761.8	1062.4	618.5	282.6	207.4	122.8	0.0
11.	Malappuram	0.8	2.6	0.0	102.6	417.7	523.5	687.8	422.6	273.4	191.2	191.4	0.0
12.	Wayanad	0.8	4.5	0.9	197.7	227.2	431.1	789.6	469.2	329.4	145.9	107.0	0.0
13.	Kannur	1.6	0.0	0.0	35.2	268.2	614.3	957.7	446.6	165.0	164.1	122.3	0.0
14.	Kasargode	0.4	0.0	0.0	73.1	246.3	878.9	1345.6	500.1	235.0	176.0	86.7	0.0

Source : Meteorological Centre, Thiruvananthapuram

Agricultural Income

4.3 The trends in agricultural income in Kerala during the last decade is given in table 4.4. Eventhough the sector has recorded positive trend in growth performance after 1990-91 it has not been consistent. The growth rates during 1990-91 was abnormally high (13.83%) and thereafter it was fluctuating from year to year. The forecast

of a negative growth for 1994-95, though marginal, speaks of the fragile base of the agricultural production in the State. Agriculture particularly the small farm sector, which provides livelihood to every two out of three workers in Kerala, perhaps did not receive the much needed techno economic backing.

Land Use

4.4 Data on land use pattern in the State for 1994-95 are yet to be finalised. The latest data available is for 1993-94 which is presented in table 4.5. The land put to agriculture in Kerala has almost reached a saturation point recording a level of around 57 percent. However the net area sown during 1993-94 showed a decline of around 11491ha; caused by the increases in the area under current fallow (+7193) and land put to non-agricultural uses (+5641). In a State like Kerala with high density of population, the diversion of agricultural land for non-agricultural uses particularly for residential purposes as well as for creation of transport and communication facilities is not easily avoidable. But on the other hand the increasing trend in categories like current fallows, fallow other than current fallow and cultivable waste is a matter of serious concern. The data for 1993-94 reveals that nearly 1.7 lakh ha. of such land still remain uncultivated in Kerala. With the technological advancement in agricultural production encompassing more and more crops

Table 4.4
Growth of Agricultural Income in Kerala

Year	Agricultural income in 1980-81 prices (Rs. in crores)	Rate of Growth (%)	Percentage contribution to state income
(1)	(2)	(3)	(4)
1981-82	1304.83	0.84	34.94
1982-83	1286.38	-1.41	33.62
1983-84	1185.76	-7.82	32.30
1984-85	1319.75	11.29	33.86
1985-86	1379.24	4.50	34.13
1986-87	1309.49	-5.05	32.79
1987-88	1366.01	4.32	32.79
1988-89	1568.94	14.86	34.23
1989-90	1547.30	-1.38	31.67
1990-91	1761.35	13.83	33.47
1991-92	1818.16	3.23	33.89
1992-93	1826.06	0.43	31.75
1993-94*	1937.08	6.08	31.42
1994-95**	1935.14	-0.10	29.95

Source : Directorate of Economics & Statistics

* Provisional

** Quick estimate

Table 4.5
Land use Pattern in Kerala

Sl. No.	Classification of land	1992-93		1993-94		Change in area between 92-93 & 93-94	
		Actual	%	Actual	%	area	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Total Geographical area	3885497	100.00	3885497	100.00	-	-
2.	Forest	1081509	27.83	1081509	27.83	-	-
3.	Land put to non-agricultural uses	302798	7.79	308439	7.94	5641	1.86
4.	Barren and Uncultivated land	55229	1.42	51530	1.33	-3699	-6.70
5.	Permanent pastures and grazing land	1699	0.04	1569	0.04	-130	-7.65
6.	Land under miscellaneous tree crops not included in net area sown	34054	0.88	36713	0.94	2659	7.81
7.	Cultivable waste	91233	2.35	89769	2.31	-1464	-1.60
8.	Fallow other than current fallow	27404	0.71	28695	0.74	1291	4.71
9.	Current fallow	41978	1.08	49171	1.27	7193	17.14
10.	Net Area sown	2249593	57.90	2238102	57.60	-11491	-0.51
11.	Area sown more than once	796878	20.51	804599	20.71	7721	0.97
12.	Total Cropped area	3046471	78.41	3042701	78.31	-3770	-0.12
13.	Cropping intensities	135.42	-	135.95	-	-	0.53

Source : Directorate of Economics & Statistics

around the globe, there is no justification for keeping such a considerable proportion of cultivable land without using for any productive purposes. More so when viewed in the background that the State has attained a very high cropping intensity of around 136% as early as in seventies and subsequent trends reveal only intercrop adjustments, keeping the cropping intensity more or less constant. See Fig. 4.2

Overall trend in the performance of different categories of crops.

4.5 The indices of area, production and productivity of major categories of crops for the

last one and half decades are given in table 4.6. The index for overall production which was 100.17 for the triennium ending 1978-79 has been steadily increasing from 132.67 in 1992-93, 138.56 in 1993-94 and 141.66 in 1994-95. The increase in production is largely contributed by increase in productivity of crops as evidenced by the sharp rise in the productivity index from 98.71 in 1978-79 to 118.32 for 1994-95. The area index during the period, on the other hand, has only marginally increased from 101.48 to 104.54 during the period. It implies that perhaps Kerala Agriculture has already passed its expansion phase and the future lies in vertical growth.

Table 4.6

Index of Area, production and Productivity of Crops in Kerala
Base average of Triennium ending 1979-80

Sl. No.	Crops	Area			Production			Productivity					
		Average of 3 years 1976-77 to 1978-79	1992-93	1993-94	1994-95	Average of 3 years 1976-77 to 1978-79	1992-93	1993-94	1994-95	Average of 3 years 1976-77 to 1978-79	1992-93	1993-94	1994-95
	All Crops	101.48	104.19	103.73	104.54	100.17	132.67	138.56	141.66	98.71	114.94	117.51	118.32
A.	Food Grains (1+2)	102.55	67.00	63.18	62.89	98.67	84.47	78.15	76.07	96.22	126.10	123.60	121.20
1.	Cereals	102.59	67.10	63.38	63.83	98.85	84.35	78.07	75.86	96.35	125.84	123.31	120.91
2.	Pulses	101.53	64.72	58.42	64.11	87.06	92.40	82.94	89.68	85.25	142.70	141.97	139.85
B.	Non Food Grains (3 to 8)	101.00	121.30	122.38	123.71	100.52	143.85	152.56	156.86	99.52	112.35	116.10	117.65
3.	Oilseeds	101.66	129.34	130.23	132.21	103.48	464.11	166.10	169.66	101.79	125.37	126.39	126.39
4.	Plantation Crops	95.04	175.22	176.93	178.88	93.54	211.52	238.16	248.39	98.74	120.30	138.96	144.93
5.	Condiments & spices	100.65	129.45	130.99	134.09	89.40	132.32	145.01	155.24	88.82	108.32	109.09	114.51
6.	Drugs & Narcotics	82.29	32.66	28.38	27.44	89.54	29.82	29.39	23.57	108.85	104.52	127.12	88.70
7.	Fruits & Vegetables	103.20	79.36	79.96	79.66	105.94	87.62	87.50	87.04	102.65	93.61	93.06	92.78
8.	Miscellaneous crops	103.59	141.77	154.40	147.00	98.02	120.58	126.05	115.02	94.62	76.52	71.99	67.04

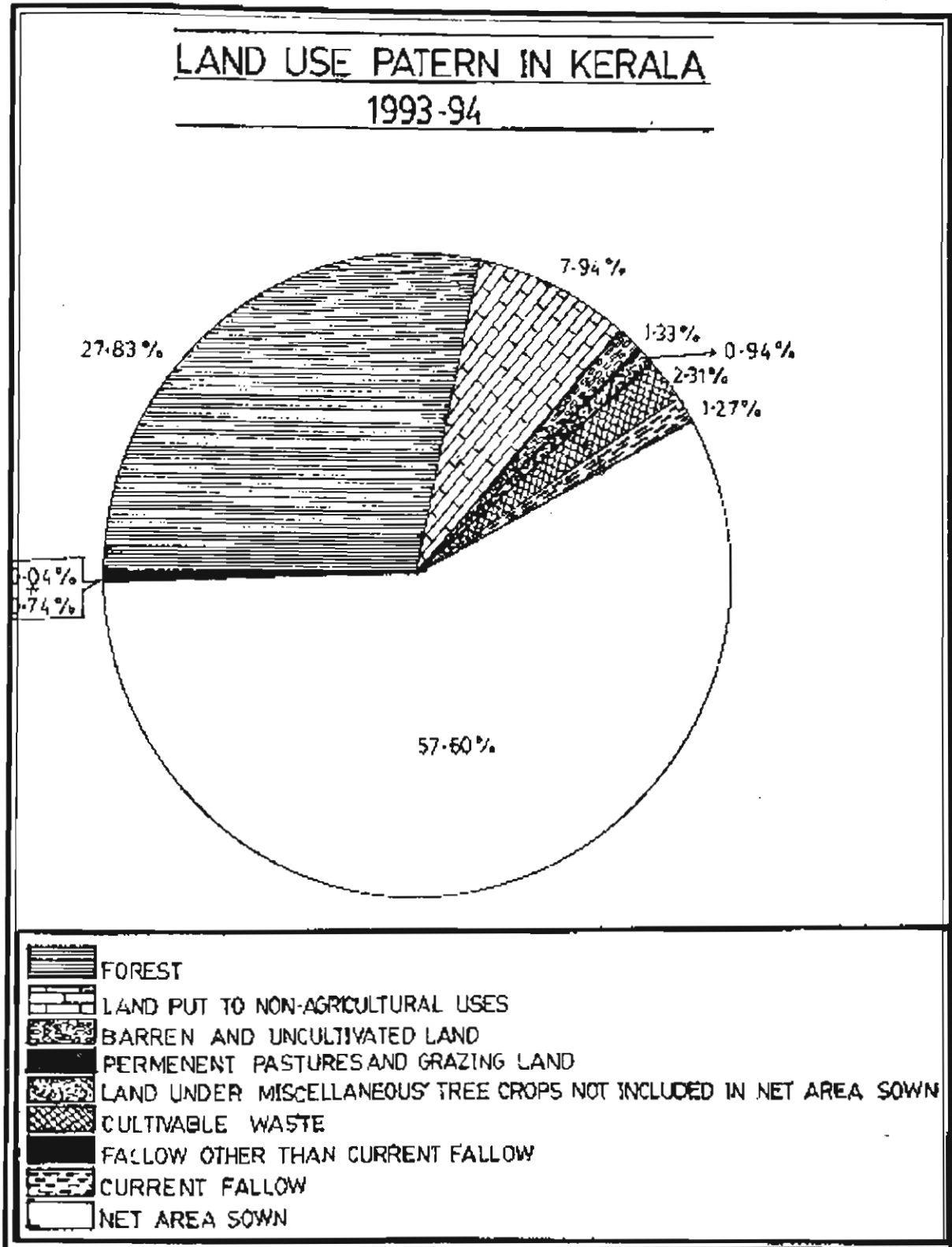


Fig. 4.2

4.6 A further analysis of the trend among the various categories of crops also bring to focus very interesting observations. Foodgrain crops in general have become a losing proposition with their area indices falling at an alarming rate from 102.55 to 62.89. The productivity index eventhough maintaining a positive trend the growth rate is only marginal not adequate enough to compensate the loss in production due to fall in area. This observation holds good for both cereals and pulses though at varying degrees.

4.7 The non-foodgrain sector comprising of the plantation sector and other commercial crops present a trend which is just the reverse of the trend observed in the case of food crops. The overall area index in respect of plantation crops has been rising very fast touching a peak of 123.71 compared to the base level of 101 for 1978-79. But on the other hand the productivity index showed only a low growth rate (from 99.52 to 117.65) compared to the area index. It is evident that the structural adjustment of the Kerala Agriculture started from the mid seventies is still persisting. It is also important note that the expansion in area under commercial crops, with the exception of rubber, is taking place in Kerala without adequate capital investment for providing the basic infrastructure and without providing the needed attention and management, which would, in a sense, explain the reasons for the lack of adequate momentum in the agriculture sector in the State. Among the various categories under the non-foodgrain sector plantation crops comprising of rubber, tea, coffee and cardamon has recorded the maximum growth in area as revealed by the enormous increase in their area index from 95.04 to 178.88. In respect of these crops the productivity index also show substantial growth from 98.74 to 144.93. Oil seeds group, where coconut is the main crop, is also more or less in a comfortable setting with encouraging growth both in area and productivity indices. Long term trend in respect of condiments and spices also reveal a similar trend. On the contrary Fruits and Vegetables as well as "drugs and narcotics" present a very dismal picture. The poor performance of fruits and vegetables is largely explained by the steep fall in the area of tapioca which has also been categorised under the category as vegetables for the purpose of this analysis.

Area production and productivity of Crops

4.8 Current statistics on area, production and productivity of major agricultural commodities as estimated by the Directorate of Economics and Statistics are furnished in table 4.7

4.9 Out of a gross cropped area of 30.42 lakh ha. in 1994-95, food crops comprising of rice, pulses, minor millets and tapioca occupy only 22%. Kerala State which had a very low base in food production due to a low proportion of the cultivable area being devoted to these crops, compared to other States, is now facing serious challenges in retaining even this meagre area. The Kerala Agricultural economy was undergoing a structural transformation from the mid seventies by switching over a large proportion of its traditional areas which were devoted for subsistence crops like rice and tapioca to more remunerative crops like coconut and rubber. The data for 1994-95 shows that this trend is still continuing though at a reduced scale. The area under rice which was 5.37 lakh ha. in 1992-93 has come down to 5.08 lakh ha. in 1993-94 and further to 5.03 lakh ha. in 1994-95. In the case of tapioca also the area has declined from 1.35 lakh ha. in 1992-93 to 1.30 lakh ha. in 1994-95. The only solace in the otherwise discouraging scenario is that the degree of fall in area has come down considerably during the recent years. It appears that both the crops are getting stabilized in locations where they are sustainable on socio-economic considerations.

4.10 The area under commercial crops in general and rubber in particular has increased considerably during the last two decades. The trend during 1994-95 also is not different either. Coconut ranks first in area expansion followed by Rubber. The increase in area under coconut was from 8.77 lakh ha. in 1992-93 to 8.82 lakh ha. in 1993-94 and 9.01 lakh ha. in 1994-95. While it was from 4.28 lakh ha. to 4.37, 4.43 lakh ha. respectively for rubber. Other commercial crops which have recorded expansion in area during 1994-95 over 1992-93 level include Pepper (+5209 ha.), Turmeric (+716 ha.), Arccanut (5118 ha.) & plantain (+4212 ha). The crops which have lost their coverage in area include cashewnut (-3355 ha), banana (-1764 ha), groundnut (-3107 ha.) and sesamum (-643 ha.). It is a paradox that most of these crops lost their area inspite of State

Table 4.7

Area, Production and Productivity of Principal Crops in Kerala
(Area in ha. production in tonnes and productivity in kg/ha)

Sl.No.	Crops	Area			Production			Productivity		
		1992-93	1993-94	1994-95	1992-93	1993-94	1994-95	1992-93	1993-94	1994-95
1	2	3	4	5	6	7	8	9	10	11
1.	Rice	537608	507832	503290	1084875	1003988	978065	2018	1977	1937
2.	Jowar	5935	5486	5565	3021	2794	2889	509	509	519
3.	Ragi	1706	1558	1573	1380	1254	1285	809	805	817
4.	Other millets	2629	2687	2628	2044	2100	2783	777	782	1059
5.	Pulses	23123	20874	22904	17070	15322	16567	738	734	723
6.	Sugarcane	6100	6235	5278	49874	50907	44876	8176	8165	8502
7.	Pepper	183478	184410	188687	49666	49545	52011	271	269	276
8.	Chillies	521	465	527	520	461	551	998	991	1046
9.	Ginger	13937	11125	14018	45403	37676	47673	3258	3387	3401
10.	Turmeric	2938	3250	3654	5662	6296	5626	1927	1937	1540
11.	Cardamom	43386	43456	43320	2424	4430	4431	56	102	102
12.	Areca nut (million nuts)	63929	69153	69047	13643	15357	15616	213409	222073	226164
13.	Banana	25667	23850	23903	308871	332980	332980	12034	14256	13930
14.	Other Plantains	44290	48298	48522	211186	233674	239801	4768	4838	4942
15.	Cashewnut	109035	106733	105680	95623	87514	86993	877	820	823
16.	Tapioca	135033	130987	130107	2629127	2602212	2578892	19470	19866	19821
17.	Sweet potato	2492	2279	2171	20323	18281	16841	8155	8022	7757
18.	Groundnut	15535	16514	12428	11546	13304	9133	743	806	735
19.	Sesamum	8012	7891	7378	1696	2074	1807	212	259	245
20.	Coconut (million nuts)	877012	882293	900717	5124	5192	5303	5843	5885	5888
21.	Cotton	12253	13753	13753	19776	22197	22197	1614	1614	1614
22.	Tobacco	164	182	119	317	341	201	1933	1874	1689
23.	Coffee	84000	82348	82348	36170	43472	39000	431	528	474
24.	Tea	34488	34124	34656	54435	66691	65151	1578	1926	1880
25.	Rubber*	428864	437138	443300	368648	408311	442830	830	934	999

Sources : Directorate of Economics & Statistics

1. Rubber Board Kottayam
2. UPASI

Government operating special programmes for preserving and expanding their area.

4.11 On the productivity side Kerala Agriculture does not present an encouraging picture. In the context of severe competition in the national and international farm front, greater efficiency in production through improvement in productivity and competitiveness through cost reduction is crucial even for sustaining the present share we hold in the national and international trade. Unfortunately Kerala does not appear to have a competitive edge in respect of any crop except perhaps in the case of rubber. Crop estimates for 1994-95 reveals that even in the case of food crops we could not maintain the increasing trend in productivity which we were upholding all these years. Productivities of both rice and tapioca have declined. Quite contrary to the past trend the commercial crops sector in general showed a positive trend in productivity during 1993-94 &

1994-95. They include Rubber (830 Kg to 999 Kg/ha.) Tea (1578Kg. to 1880Kg/ha.), Coffee(431 Kg. to 474Kg./ha) Coconut (5843 nuts/ha. to 5888), Areca nut (2.13 lakh nuts/ha to 2.26 lakh nuts), Cardamon (56 Kg. to 102 Kg/ha.), Pepper (271 Kg. to 276 Kg./ha.), Ginger (998 Kg. to 1046 Kg./ha.) Turmeric (1927 Kg. to 1340 Kg/ha.), etc. Coffee and Tea though recorded increases in productivity during 93-94 it could not be sustained during 94-95. Two major crops which registered negative growth in productivity during the period are cashewnut (877 Kg. to 823 Kg/ha.) and banana (14256 to 13930 Kg/ha.).

4.12 On the production front there was spectacular improvement in the production of rubber (4.08 lakh tonnes to 4.42 lakh tonnes) and coconut (5124 million nuts to 5303 million nuts) both reaching new peaks during 1994-95. Other crops which have recorded positive growth in production include pepper (from 49666 tonnes to 52011 tonnes), ginger

(45403 tonnes to 47673 tonnes, cardamon (2424 tonnes to 4431 tonnes, Arecanut (13643 million nuts to 15616 nuts and banana and plantain (5.19 lakh tonnes to 5.71 lakh tonnes. Coffee from 36170 tonnes to 39000 tonnes and Tea from 54435 to 65141 tonnes. In the commercial crops sector the crops which have recorded negative growth in production are very few and they include cashewnut (from 95623 tonnes to 86993 tonnes) and groundnut (11546 tonnes to 9133 tonnes).

4.13 Among the food crops, rice which has shown a spectacular recovery in production during 1989-90, again slid back to the path of decline during 1993-94 and 1994-95. Rice production which was 10.84 lakh tonnes in 1992-93 has plummeted to an all time low of 9.75 lakh tonnes during 1994-95. The plight of pulses and tapioca, the other important food crops in Kerala has also been more or less similar, both losing in production substantially. Pulses production fell from 17070 tonnes in 1992-93 to 16567 tonnes while in the case of tapioca the fall in production was from 2.62 lakh tonnes to 2.57 lakh tonnes.

Performance of major crops

Rice

4.14 With just 1.1% of the country's area Kerala has to support about 3.4 percent of her population. The high pressure of population beyond the carrying capacity of the land, coupled with a cropping system traditionally oriented towards cash crops, contributed to its being a food deficit from the very beginning. The gap between demand and supply which was around 50 percent till the mid seventies started widening there after consequent to the large scale shift in paddy lands for cultivation of other remunerative crops like coconut. The area and production of rice which was steadily increasing till the mid seventies had to succumb to economic pressure emanating from other remunerative crops resulted in the decline of more than 3 lakh ha of land under paddy cultivation during the last two decades. Rice production which has attained a peak level of around 14 lakh tonnes in seventies has gradually declined to 10 lakh tonnes. Eventhough the State could maintain the productivity of rice at a level much higher than the national average, and showed regular improvements, it was not adequate enough to compensate the loss in production consequent to the fall in area.

Table 4.8
Area, Production and productivity of Rice in Kerala & India

Sl. No.	Year	Area ('000ha)		Production ('000 tonnes)		Productivity (Kg/ha.)	
		Kerala	India	Kerala	India	Kerala	India
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	1989-90	583.388	42690	1141231	74290	1956	1740
2	1990-91	559.450	42640	1086.578	74680	1942	1751
3	1991-92	541.327	42649	1060.350	74678	1959	1751
4	1992-93	537.608	41637	1084.878	72610	2018	1744
5	1993-94	507.832	-	1003.938	-	1977	-
6	1994-95*	503.290	-	975.065	-	1937	-

* Provisional

Source : Directorate of Economics & Statistics

4.15 The area production and productivity of rice during the last five years are given in table 4.8. See also Fig. 4.3. The declining trend in area is still continuing though at a lesser degree. The annual average decline in area during the 5 year period after the introduction of group farming programme for rice was 16000 ha. while it was around 25000 ha. in the earlier period. The provisional estimates for 1993-94 and 1994-95 also show that even the massive infrastructural support programme implemented by the State involving an outlay of over 60 crores for providing the necessary supporting facilities like irrigation, drainage, land development etc. required for sustaining paddy cultivation could not succeed in arresting the declining trend in area completely. However the estimates for 1994-95 forecasts only a marginal decline of around 4000 ha. On the production front there was further decline from the level of 11.41 lakh tonnes recorded at the time of introduction of the group farming programme in 1989-90. Subsequently though a marginal recovery was observed in 1992-93 production is anticipated to touch its lowest level of 9.75 lakh tonnes in 1994-95. Unlike in previous years the decline in production during 1994-95 has been not only on account of fall in area but also due to the decline in productivity. In the matter of productivity the State could so far maintain a track record of continuous improvement. But unfortunately the forecasts for 1993-94 and 1994-95 reveal that the State has failed in sustaining the increasing trend in productivity. The average productivity which has touched its peak of 2018 Kg. per ha. in 1992-93 has come down to 1977 Kgs. in 1993-94 and further to 1937 Kgs. in 1994-95. Rice cultivation in Kerala is thus

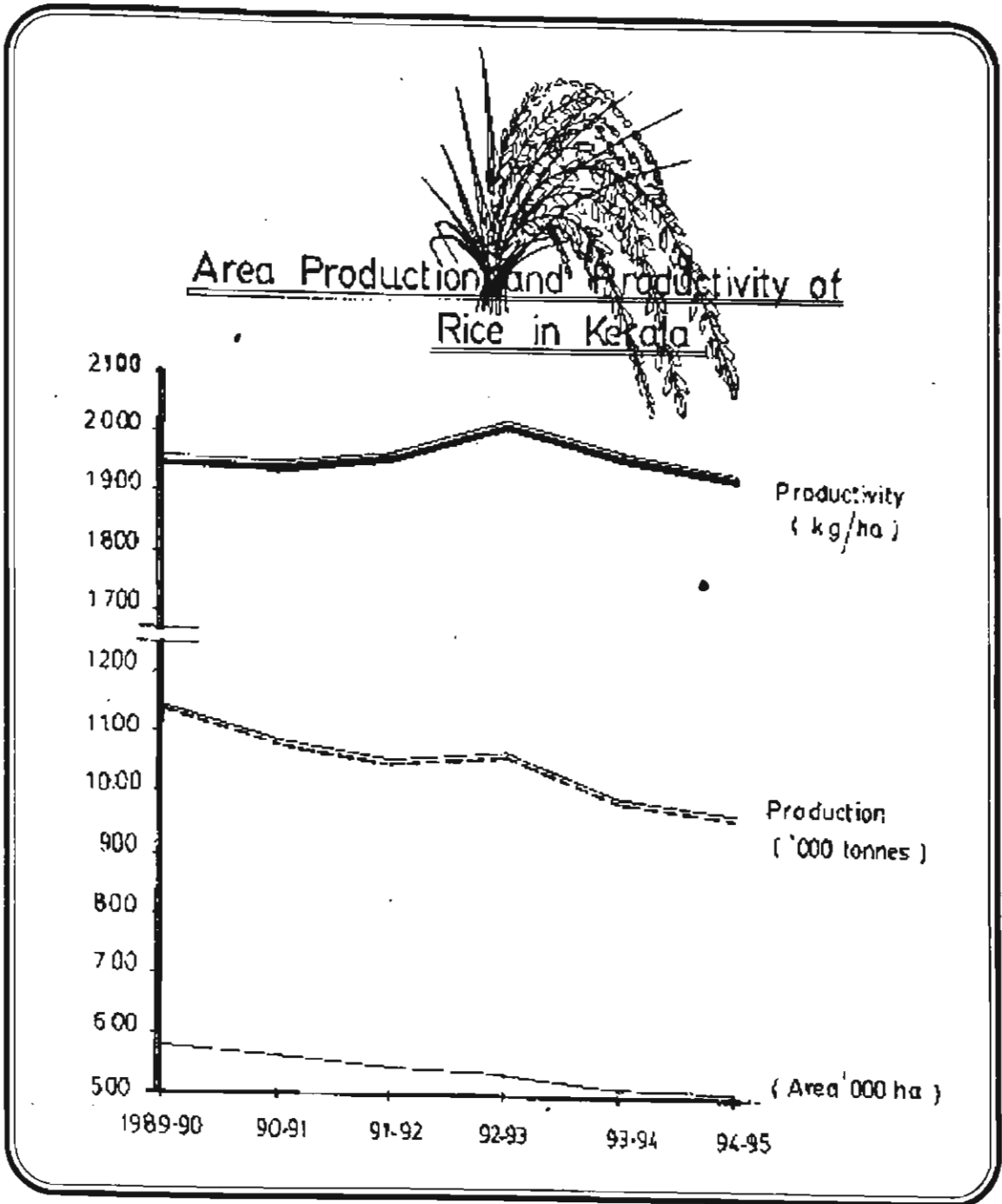


Fig. 4.3

passing through the worst ever crisis making all efforts for salvaging the crop in a state of utter despair. Although attaining self-sufficiency in food production in Kerala may continue to remain an elusive dream, the location of the State at the Southern most part of the country and the enormous problems of moving large quantities of food across the length and breadth of the country warrant all out efforts to improve local rice production for narrowing down the self-sufficiency ratio to the extent possible. What emanates from the situation is that instead of pumping in more money by way of additional incentives, rice production can perhaps be improved only through major socio-economic correctives coupled with appropriate institutional arrangements for organising certain common services. The Group Farming Programme for rice production which has been conceived as an institution to fill this gap has failed to fulfill this mission. Development of appropriate machinery suitable to the various operations and services connected with rice production also require special attention. The enormous increase in the prices of fertilizers and wages and non-availability of labour in time during peak operating seasons, the failure of the irrigation system to service the areas to the extent desired etc. are all problems that make the organisation of rice cultivation in Kerala a formidable task. Strengthening of the group farming samithies on a wider base with the required facilities and gradually raising them to the level of self-supporting institutions is perhaps one way to circumvent these problems.

Season-wise performance

4.16 Swason-wise data on the performance of rice during the last 3 years are given in table 4.9. The decline in area has been large in Virippu

season while in the other season it shows signs of slowing down. The area under Virippu crop is gradually shrinking and as per the present data the area during Virippu season is lower by about 5000 ha. The reasons for leaving sizable extent of paddy lands without raising paddy during virippu season require detailed study. The infrastructural programme operated by the Department of Agriculture through Group Farming Samithies should concentrate their efforts in such areas with a view to bringing such areas under double cropping. Similarly catch crops like pulses, vegetables etc. should be promoted in the summer fallows on a selective basis depending on the availability of moisture in the rice fields.

4.17 With regard productivity Mundakan season is far ahead of Virippu season. The average productivity in Mundakan during 1994-95 was 2102 Kg. per ha. against 1647 Kg. recorded for Virippu season. However the Punja crop still retains its supremacy in productivity with 2214 Kg./ha. in 1994-95. The productivity during virippu is not only low compared to Mundakan but also is on the declining (1992 Kg/ha. in 1992-93 to 1647 Kg/ha. in 1994-95). The declining trend applies to the Punja crop also (from 2305 Kg/ha. in 1992-93 to 2214 Kg/ha. in 1994-95). The productivity of Mundakan crop has increased from 1953 Kg/ha. in 1992-93 to 2102 Kg/ha. in 1994-95.

HYV Coverage

4.18 The poor performance of rice in Kerala is also attributable to the relatively low coverage of high yielding varieties. Out of a gross cropped area of 5.03 lakh ha. the coverage under high yielding varieties is only 1.72 lakh ha. In percentage term it works out to 34 percent. The coverage is

Table 4.9

Season-wise area, production and productivity of rice in Kerala (Area in ha., production in Tonnes and productivity in kg/ha.)

Sl. No.	Season	Area			Production			Productivity(Kg/ha.)		
		1992-93	1993-94	1994-95	1992-93	1993-94	1994-95	1992-93	1993-94	1994-95
1	2	3	4	5	6	7	8	9	10	11
1.	Virippu	218751	203776	198725	435794	398357	327375	1992	1955	1647
2.	Mundakan	244096	236757	237788	476748	461156	499877	1953	1948	2102
3.	Punja	74761	67299	66777	172336	144425	147813	2305	2146	2214
4.	All seasons	537608	507832	503290	1084878	1003938	975065	2018	1977	1937

Figures for 1994-95 are provisional

Source : Directorate of Economics & Statistics

more or less stagnant. The fact that the coverage under HYV remaining more or less constant is ample proof that inspite of steep fall in area under rice and several odds, and the farmers are not hesitant in raising HYVs and adopting new technologies in areas where the required infrastructural facilities are available. Eventhough Mundakan season accounts for the largest share in coverage of area under rice its contribution by way of high yielding varieties is lower compared to virippu season. This is mainly because of the failure of research support to evolve a variety with multiple resistance suitable for cultivation in different localities in Kerala during Mundakan Season. As the Mundakan crop is subjected to many vagaries of nature like floods in the earlier phase, drought in the later phase as well as severe

was later converted as investment subsidy for taking up long term improvement works like irrigation, drainage, land development etc. for which 85% cost was met by Government. Accordingly 1375 works involving an outlay of Rs.68.12 crores were taken up for execution dovetailing the programme with the special fund made available to the State, under Prime Ministers' programme to compensate for the hike in fertilizer prices. The execution of the works was through beneficiary committees. Under this scheme 564 works were completed till the end of 1994-95 and the remaining works are in different stages of execution. Eventhough priority was given for those works which facilitate raising of additional crops of rice the implementation of the scheme as per the district

Table 4.10
Coverage of HYV rice in Kerala 1984-85 to 1994-95

Sl. No.	Year	Coverage in HYV (ha.)				% to total coverage in HYV area under rice			
		Autumn	Winter	Summer	Total	Autumn	Winter	Summer	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	1984-85	112400	63687	44452	220539	50.97	28.88	20.15	100
2.	1985-86	83782	40650	38846	163278	51.31	24.90	23.79	100
3.	1986-87	80076	44604	41253	165933	48.26	26.88	24.86	100
4.	1987-88	54760	33763	31311	119744	45.70	28.20	26.10	100
5.	1988-89	62354	37971	36691	137016	45.52	27.71	26.77	100
6.	1989-90	78997	36910	39718	155625	50.80	23.70	25.50	100
7.	1990-91	80025	40005	42786	162816	49.15	24.57	26.28	100
8.	1991-92	73304	49745	43287	166336	44.07	29.91	26.02	100
9.	1992-93	78090	45417	51589	175096	44.60	25.93	29.46	100
10.	1993-94	73243	51192	47983	172418	42.48	29.69	27.83	100
11.	1994-95*	72478	55574	44391	172445	42.03	32.23	25.74	100

Source: Directorate of Economics & Statistics
* Provisional

incidence of pest and diseases, Kerala requires a hardy and High stable variety for the Mundakan seasons. Details are given in Table 4.10

Production Programme

4.19 Sustaining the area under rice cultivation by arresting the shift from the crop was one of the major strategies approved under the Eighth Plan. Group Farming Programme with the support of infrastructural development was accepted as an important measure for salvaging rice cultivation. Financial assistance provided for the purpose of taking up location specific and need based programmes during 1992-93 and 1993-94

wise statistics available, did not appear to have made any impact by way of sizable improvement in area in a substantial scale under rice cultivation in any part of the State.

4.20 Farm Mechanisation is another area given emphasis during the Eighth Plan. During the last three years 137 Tractors, 344 Power Trillers 174 Threshers 29 winnokers and 48 sprayers were supplied and 85% of its cost was met by the State Government. The financial assistance extended to rice growers in this regard during the Eighth Plan works out to 4.93 crores.

4.21 A Special scheme for developing the

traditional single cropped lands like Kari land in Kuttanad, Kole lands in Thrissur and high lands in Wayanad was also launched with sizable outlay. The investment under this programme was largely concentrated in Thrissur Kole for completing the construction of permanent bunds, the implementation of which had come to a halt half way due to problems connected with institutional funding. However the State could spend nearly 9.37 crores during the last 4 years through budgetary support and the aspirations of the Kole cultivators could be kept alive. With the approval of NABARD for funding the scheme under the

“Rural Infrastructural Development Fund” the scheme is expected salvaged after a long period of waiting. Under the agreement signed with NABARD a special assistance of Rs.20 crores would be made available for the completion of the project while the State has to contribute Rs.11 crores. Details of development support given to rice cultivation are given in table 4.11

Coconut

4.22 Although Kerala regions supreme amongst Indian States for coconut production

Table 4.11
Details of Development Support given for Rice Production

Sl. No.	Name of Scheme	Activities supported	1993-94	1994-95
1	2	3	4	5
1.	Group farming for Rice production	a. Community nurseries b. Distribution Weedicides c. Area covered under Plant Protection d. Distribution of Sprayers e. Distribution of power tillers	Infrastructure Development and works in Conjunction with Prime Ministers Programme Power tillers 1048 Nos. Threshers 965 Nos. Works 350 Nos. 800.00 1107.99	Infrastructure Development and works in conjunction with Prime Ministers Programme - - - 379 Nos. 1450.00 1450.00
	Targets (Rs. lakhs) Expenditure (Rs. lakhs)			
2.	Seed Programme for Food Crops through Group Farming Samithies/ Service Co-operatives	a. Registered Seed growers Programme (ha) b. Paddy Seeds distribution (MT)	1517 2955	3538 48.50 50.727
	Targets (Rs. lakhs) Expenditure (Rs. lakhs)		200.00 202.45	
3.	Integrated cereal development Programme for Rice (the programme changed as above from 1994-95)	a. Field demonstration b. I P M demonstration c. Training to farmers d. distribution of productivity awards	- - - -	100.00 82.45 275 Nos. 266 Nos. 107 Nos. 54 Nos.
	Target (Rs. lakhs) Expenditure (Rs. in lakhs)	No. of kits distributed (Nos)	- 3765	48.50 50.727
4.	Mini kit of rice (100% CSS)		2.00 0.91	32031 Nos.
	Target (Rs. lakhs) Expenditure (Rs. in lakhs)	Development authorities have been constituted for Kari and Kole lands and infrastructural works facilitating additional cropping are supported		2.00 7.9145
5.	Development of rice in areas with special problems		200.00 290.00	500.00 500.00
	Targets (Rs. in lakhs) Expenditure (Rs. in lakhs)			

Source : Directorate of Agriculture

immunerable problems related to its cultivation and marketing in the State are likely to deprive it of its supremacy in the years to come. The trend has already started with many of our neighbouring states marching ahead with ambitious programmes for expansion of area under the crop. The problems are likely to be compounded further in view of the low level of productivity of the crop compared to the newly emerging coconut producing States. The

Table 4.12

Area, Production and productivity of Coconut in Kerala & India

Sl. No.	Year	Area(000ha)		Production (Milion nuts)		productivity (Nuts/ha.)	
		Kerala	India	kerala	India	kerala	India
1	2	3	4	5	6	7	8
1	1990-91	870.02	15139	4232	9700.2	4864	6407
2	1991-92	863.06	15289	4641	10079.6	5377	6593
3	1992-93	877.012	1617.6	5124	11375.4	5843	7032
4	1993-94	882.293	-	5192	-	5885	-
5	1994-95*	900.717	-	5303	-	5888	-

* Provisional

Source: Directorate of Economics & Statistics

trend of area production and productivity of coconut in Kerala during the last four years are given in table 4.12. See also Fig. 4.4. The area under the crop shows continuous improvement in Kerala. The increase in area registered Kerala State alone during the last 10 years works out to over 2 lakh ha. and a large chunk of this newly planted area is yet to attain stability in yield. Expansion in area in coconut is not singular to Kerala and it is happening at a much faster rate in other South Indian States. Production of coconuts also is on the increase though at a lower rate than the speed with which area is expanding. According to the estimates available for 1994-95 the area under coconut in Kerala was 9 lakh ha. and the production was 5303 million nuts, creating new records in both the aspects. The productivity also touched a new high of 5888 nuts eventhough it is still lower than the national average of over 7000 nuts per ha. The unregulated spurt in area is likely to result in a very serious glut in the market in the near future the inklings of such a disastrous trend is already evident in the coconut trade front. The depression in coconut prices to such a low level of around 2 to 2.5 rupees a nut experienced and persisted throughout 1994-95 is a pointer to the inherent

damagers in pursuing an indiscriminate expansion policy for coconut. Future strategy should therefore be one of regulating the area based on detailed demand studies and concentrating the efforts for securing higher levels of productivity from the areas already planted. Over reliance on a single end use namely coconut oil also has its adverse consequences in stabilizing prices. In the fast changing coconut economy in the country the commodity should necessarily get attention and research support for diversified uses in the food front as coconut and its products particularly at tender stages can form the base for excellent and nutritious food

Production Programmes

4.23 The reasons for the productivity remaining low in Kerala are prevalence of root wilt disease affecting about 1/3 of the area, cultivation under rainfed conditions without adequate facilities for supplementary irrigation, adoption of poor management practices, and instability in income due to fluctuation in prices. In order to save the crop as well as about 30 lakh farmers dependent on it a massive scheme with a comprehensive approach for better management of the coconut plan covering 1 lakh ha. over a period of 3 years was launched by the State involving an outlay of Rs.215 crores and the programme is under implementation from 1994-95 onwards.

4.24 Prices of coconut has recorded unprecedented fall in 1994 and the small farmers dependent on this crops were in utter distress. Government of India has introduced several measures to rescue to crop which includes withdrawal of the 50% excise duty newly announced on small pack of coconut oil treating it as hair oil, lifting of the two decade old ban on the use of coconut oil for manufacture of Vanaspathy, allowing blending of coconut oil with other oils for the manufacture of Dhara oil by NDDB, continuing the ban on the import of copra and coconut oil, operating a market intervention scheme with a support price of Rs.2350 per Qtl. of copra. In spite of all these measures coconut oil prices remained low throughout 1994-95 season. With the large scale supplies anticipated from the enormous expansion in area that has taken place both in Kerala and outside, diversification of the end use of coconut and strengthening its marketing base through a technology mission approach with focus



Area, Production and Productivity of Coconut in Kerala

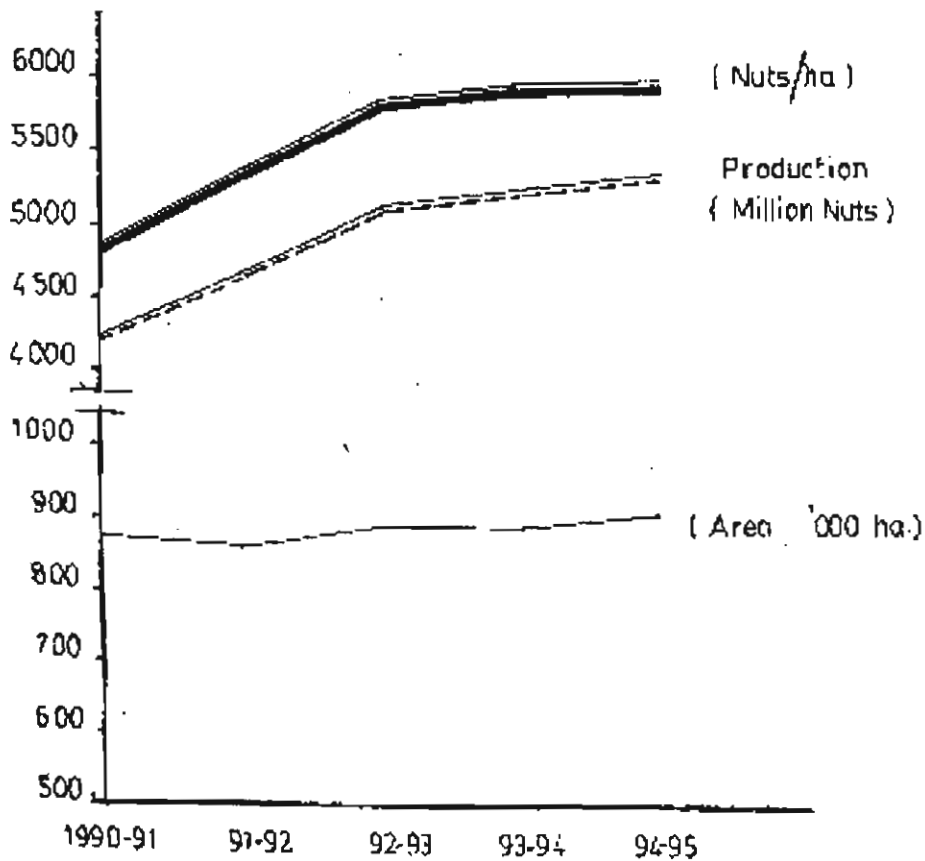


Fig. 4.4

Table 4.13

Details of Development Support given for Coconut production during 1994-95

Sl. No.	Name of Scheme	Activities supported
1.	Comprehensive Coconut Development Programme on area Basis	1. Establishment of filter point tube wells-825 Nos. 2. Construction of Open dug wells (with 33 1/3 % subsidy) - 23511 Nos. 3. Construction of Open dug wells (with 90% subsidy) for SC/ST - 600 Nos. 4. Installation of pumpsets - 24175 Nos. 5. Payment of failed well compensation - 38 cases 6. Community Irrigation (Units) - 3104 Nos. 7. Group Irrigation - 34 Nos. 8. Distribution of green manure seeds 22.284 MT 9. Distribution of coconut climbing devices - 497 Nos. 10. Distribution of Rocker Sprayer - 567 Nos. 11. Training to farmers - 1593 Nos.
2.	Production and distribution of Quality Coconut Seedling	1. W.C.T. (Seedlings distributed - 5.458 lakhs) 2. D x T (Seedlings distributed - 0.458 lakhs)
3.	Integrated farming in Coconut Small holdings for productivity improvements	1. No. of senile/ Diseased palms cut - 137500 2. Area Covered Under Multi Species cropping - 16500 ha. 3. Replanting - 137500 Nos. 4. Fertilizer application - 4347225 Nos.

Source :- Directorate of Agriculture

on product diversification would be necessary to sustain the coconut economy on long term basis.

Details of development support given for coconut production are given in table 4.13

Pepper

4.25 Among spices in India pepper is the major commodity accounting for the largest share in export. For quite some time now all was not well with the Indian spices Industry with the country finding it extremely difficult to maintain its share in the World Market. Relatively new entrants like Brazil and Guatemala have posed new challenges by offering higher volumes at much lower prices. The high cost of production resulting from abysmally low levels of productivity has rendered Indian spices uncompetitive in the global market. Though the country has the largest area under pepper, almost the entire area is concentrated in Kerala, it ranks the lowest in terms of productivity. Data on area, production and productivity of pepper in Kerala and India are given in table 4.14. See also Fig. 4.5. As in the case of other cash crops

Table 4.14

Area, Production and Productivity of Pepper (Kerala & India)

Sl. No.	Year	Area('000ha)		Production (Milon tonnes)		productivity (Nuts/ha.)	
		Kerala	India	kerala	India	kerala	India
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	1989-90	167.10	171.49	54.14	55.19	323	322
2.	1990-91	168.51	173.43	46.80	47.95	278	276
3.	1991-92	178.13	184.20	50.31	52.01	282	282
4.	1992-93	183.48	177.36	49.67	54.93	271	310
5.	1993-94	184.410	183.45*	49.55	46.10	269	251
6.	1994-95**	188.687	-	52.01	-	276	-

Source: 1. Directorate of Economics & Statistics
2. Spices Board

* Provisional

** Forecast figures

the area under pepper is also on the increase. In 1994-95 the area under the crop was 1.88 lakh ha. During the last five years area has increased by over 20,000 ha, but on the other hand the productivity during the period was more or less stagnant, in the range of 275 to 300 Kgs. per ha. The productivity in India is only 1/10 of the productivity in other competing countries in the

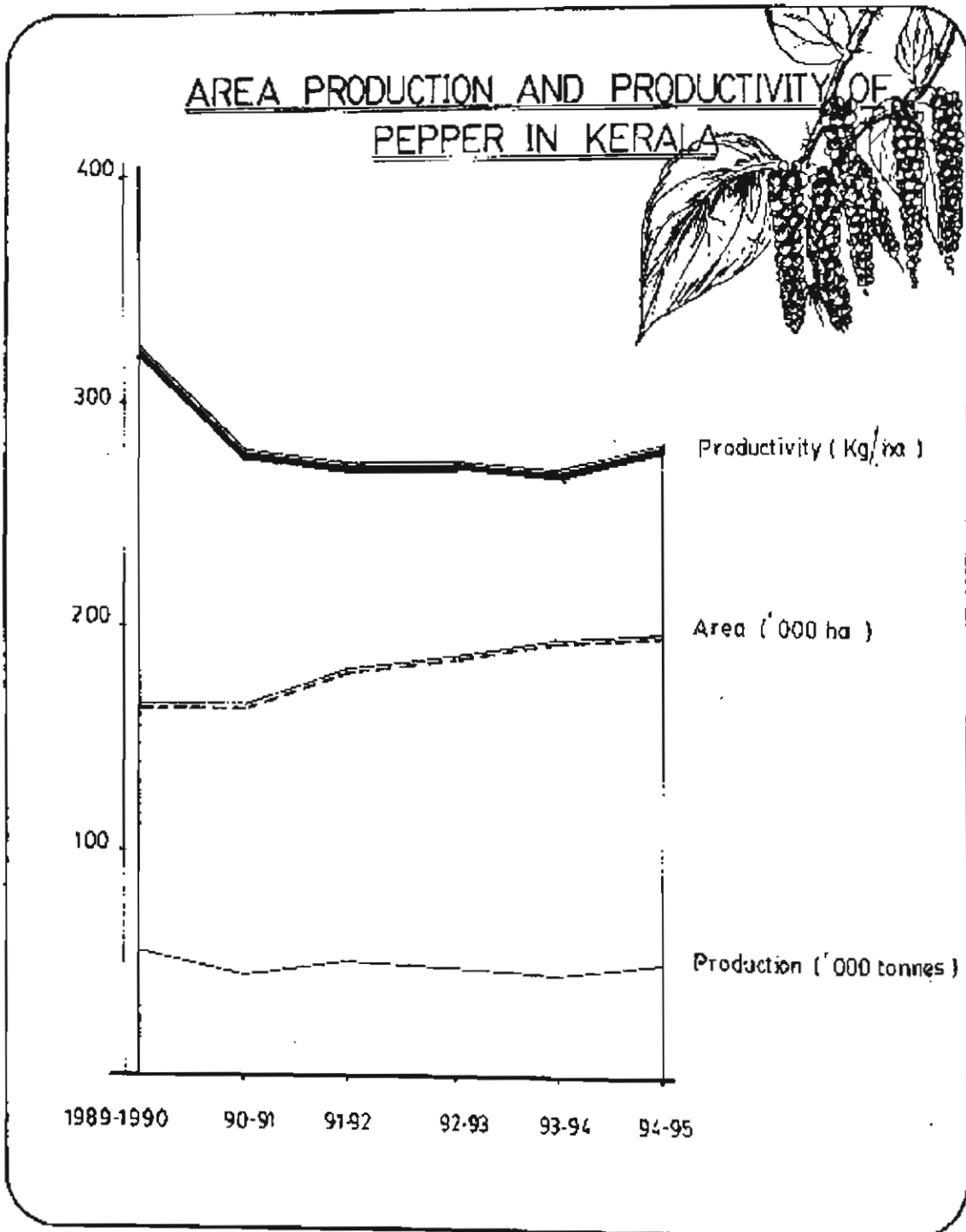


Fig. 4.5

World like Malaysia and Thailand.

4.26 During 1994 there was a price boom triggered by low production both in India and other exporting countries. The price of garbled variety has sky rocketed to about Rs.65 a Kg. such abnormal increases in prices will have only a depressing effect in augmenting the demand for the commodity. The prices has to stabilize at normal levels and the country should be in a position to supply quality products at competitive prices in World Market. The solution lies in augmenting the productivity of the crop in Kerala through organised efforts.

4.27 Being an export commodity earning substantial foreign exchange it is for the Government of India to provide the required technical and financial support for organised efforts in this direction. The Central scheme launched for pepper development during Eighth Plan enabled substantial increase in the coverage for rehabilitation of the old and uneconomic plantations. Similarly the sudden spread of the quick wilt disease of pepper in 1993-94 could be controlled only with the support of Union Government through timely control measures. During 1994-95 nearly 22000

ha. of pepper received scientific management under the rehabilitation programmes of the Central & State Governments and 86571 ha. received plant protection treatment.

Details of physical achievements under the various programmes are given in table 4.15.

Cashew

4.28 Cashewnut is one of the traditional export commodities on which Kerala had a monopoly in the past. The Cashew industry built up in the country comprises of 690 processing units with an installed capacity of around 6 lakh tonnes employing about 5 lakh workers. The internal production is only around 3.5 lakh tonnes and the gap is met through imports. The import during 1994-95 was around 2.31 lakh tonnes. Increasing the internal production of cashewnut is one of the important mission taken up by Government of India during the Eighth Five Year Plan. But unfortunately the message appeared to have not percolated down in right spirit to the Kerala farm front. Area and production trend as given in table 4.16 shows that the commodity is still in a vascillating trend both in area and production. The

Table 4.15

Details of Deveopment Support given for Pepper/Spices Production during 1994-95

Sl. No.	Name of Scheme	Activities Supported
1.	Integrated Programme for Development of Spices	1. Production and distribution of rooted pepper cuttings 49.90 lakhs.
		2. Rehabilitation of pepper garden I year - 4000 ha
		3. Maintenance of area rehabilitated - 9988.8 Ha.
		4. Demonstration plot of pepper I Year - 300 Nos.
		5. P.P. measures against Quick wilt disease - 86571.6110 ha.
		6. Area expansion I Year - 400 ha.
		7. Production of foundation seed of Ginger - 33.125 MT.
		8. Demonstration plot of ginger - 800 Nos.
		9. Distribution of input kit for Ginger - 1000 MT
		10. Area expansion of ginger (ha.) - 600 Ha.
		11. Area expansion of Turmeric - 600 Ha.
		12. Clove seedling distributed 38000
		13. Nutmeg graft distributed - 600
		14. Cinnamon seedlings distributed - 4000
		15. Distribution of P.P. equipments - 1520
		16. Soil Conservation measures - 700.48 Ha.
		17. Seed material distribution of Turmeric - 19.2 MT.
2.	Development of Spices	1. Rehabilitation of pepper garden - 6939 ha (II year)
		2. Maintenance of pepper garden - 2032.35 ha (III Year)

Source :- Directorate of Agriculture

Table 4.16
Area, Production and productivity of
Cashewnut in Kerala

Sl. No.	Year	Area ('000ha)	Production ('000tonnes)	Productivity (Kg/ha.)
1	2	3	4	5
1.	1985-86	137.74	80.20	582.25
2.	1989-90	123.66	106.25	859.20
3.	1990-91	115.62	102.77	888.86
4.	1991-92	112.05	104.60	933.00
5.	1992-93	109.04	95.62	877.00
6.	1993-94	106.733	87.514	820.00
7.	1994-95**	105.680	86.992	823.20
** Forecast figures				
India				
1.	1992-93	560.290	349.390	623.59
2.	1993-94	565.420	348.160	615.73
3.	1994-95*	-	-	-

Source : Directorate of Cashew Development,
Directorate of Economics and Statistics

forecasts for 1994-95 reveals that both area and production have marginally declined from 1.06 lakh ha. to 1.05 lakh ha. and 87.51 lakh tonnes to 86.9 lakh tonnes respectively. The productivity is also very low compared to the potential. In the technological front cashew is receiving a new impetus through the evolution of varieties which have an yield potential of over 15 Kg. per ha. and their popularisation through vegetative propagation techniques. Unfortunately Kerala is yet to assimilate the new technology and disseminate it in right earnest. As a large proportion of the existing cashew plantation belong to the earlier generation non-descript material it is high time we take up a

Table 4.17

Details of Development Support given for
Cashew Production during 1994-95

Sl. No.	Name of Scheme	Activities Supported
1	Area Expansion programme for cashew	1 New planting - 1650 ha.
		2. Cashew grafts distributed - 2.23 lakh Nos.
2.	Integrated Programme for Development of cashew	1 Cashew new planting - 400 ha
		2. Plant protection measures
		3. Area covered for spraying 9863.40 Ha.

Source : Directorate of Agriculture

programme for replanting them with improved cultivars on a large scale.

Details of development support given for Cashew development during 1994-95 is given in table 4.17.

Plantation Crops

4.29 Kerala accounts for about 46% of the area under plantation crops in the country comprising of tea, coffee, rubber and cardamom. These crops cover more than 26 percent of the net cropped area in this State and provide permanent employment to over 3.6 lakh workers.

4.30 Kerala accounts for 85% of the area and 94 % of the production of rubber in the country. The forecasts for 1994-95 shows that the area has further increased from 4.37 lakh ha. to 4.43 lakh ha. Production figures also show a very positive trend with a record level of 4.12 lakh tonnes in 1994-95. The increase in production during 1994-95 was more than 34,000 tonnes accounting for a growth rate of around 8.45%. Rubber is thus the

Table 4.18

Area, Production and productivity of Rubber in Kerala & India

Sl. No.	year	Area('000ha)		Production (M.T)		Productivity(Kg/ha.)	
		Kerala	India	Kerala	India	Kerala	India
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	1988-89	383.562	440.500	233.414	259172	967	974
2.	1989-90	396.467	460.341	275.397	297300	1025	1029
3.	1990-91	407.821	475.083	307.521	329615	1079	1076
4.	1991-92	419.174	488.514	343.109	366745	1139	1130
5.	1992-93	428.864*	499.374*	368.648	393490	1164	1154
6.	1993-94	437.138*	508.420*	408.311	435160	1228	1215
7.	1994-95*	443.300*	515.572*	442.830	471815	1282	1265

* Provisional

Source : The Rubber Board, Kottayam

only crop in Kerala which has proved its sustainability by maintaining a steady increasing trend both in area expansion and productivity. Details of area, production and productivity of rubber in Kerala & India are given in Table 4.18

4.31 The steep rise in the price of natural rubber during 1994-95 has revealed the contradictions in the rubber industry involving rubber growers and the user industry. While the increase in price was welcomed by the growers the industry circles showed nervousness at the high levels of prices. Eventhough Government of India permitted import of around 20000 tonnes according to press reports the actual import was only around 6400 tonnes. This is mainly because the international prices also remained high during the period. According to the growers organisations the country has almost attained self-sufficiency in rubber. The price of natural rubber has risen to an all time high of Rs.66 a Kg. during 1994-95. The Union Government has also increased the bench

Table 4.19

**Consumption of Rubber in Kerala & India
(in tonnes)**

Sl. No.	Year	Kerala			India		
		N.R	S.R	R.R	N.R	S.R	R.R
1	1991-92	51,197	14,893	4,853	350,150	105,650	54,015
2	1992-93	52,462	15,646	5,365	414,105	107,440	62,470
3	1993-94	54,108	16,441	5,333	450,480	109,895	63,110
4	1994-95*	64,660	18,984	6,100	485,850	122,710	64,655

* Provisional

NR - Natural Rubber

SR - Synthetic Rubber

RR - Reclaimed Rubber

Source: The Rubber Board, Kottayam

Table 4.20

**Average Market Price of indigenous & Natural
Rubber in Kottayam Market (Rs./ Quintal)**

Sl. No.	Year & Month	RMA-4	Ungraded
(1)	(2)	(3)	(4)
1.	1987-88	1791	
2.	1988-89	1815	
3.	1989-90	2131	
4.	1990-91	2129	
5.	1991-92	2141	
6.	1992-93	2550	
7.	1993-94	2569	
8.	1994-95	3638	
9.	April 1995	5441	5350
10.	May 1995	6047	5898

4/133/96-4A

(1)	(2)	(3)	(4)
11.	June 1995	6171	5729
12.	July 1995	5231	4793
13.	August 1995	4295	3982
14.	September 1995	4197	4064
15.	October 1995	4694	4153
16.	November 1995	4925	4219
17.	Average	5125	4774

Source : The Rubber Board, Kottayam

mark price for rubber for RMA 4 to Rs.24900 per tonne againsts Rs.23450 per tonne fixed earlier in January 1993. Details on consumption of Rubber in Kerala & India are given in Table 4.19. Average market price of rubber in Kottayam market are given in Table 4.20

4.32 Cardamon is another plantation crop which is on the verge of making a breakthrough in production and sproductivity. Thanks to the new varieties identified and propogated through biotechnology the crop has registered substantial improvement in productivity in recent years. The average productivity which was hovering around 50 Kg/ha. during the last two decades has nearly doubled during the last two years. The average productivity recorded during 1994-95 is 102 Kgs. per ha. The improvement in productivity has helped to pitch the production also on a comfortably high level. The forecast of production for 1994-95 is 4430 tonnes.

4.33 Kerala Cardamom which was once considered as a speciality in the export basket, the country lost its glory due to the severe and cut throat competition from Guatemala. The export market has shrunked to a very low level. During 1994-95 the export was only 225 tonnes valued at sRs.7.37 crores. The prices of cardamom continues to be low during 1994-95 with the prices hovering around Rs.255 per Kg. during the year.

Coffee

4.34 The area and production of Coffee in Kerala during 1994-95 was 82348 ha. and 39000 tonnes. The productivity of Coffee in Kerala is low compared to its potential. In view of its biennial nature of production it always fluctuate. The productivity during 1994-95 was only 474 Kgs./ha. which is lower than the natural average.

4.35 The year 1994-95 witnessed so many up heavels in the marketing system for Coffee.

The Coffee prices registered abnormal hike due to severe shortage in global supplies caused by repeated frost and consequent crop damages in Brazil. Consequently the export demand has increased tremendously which has led to growers demanding permission for free sale of the commodity. The Coffee Board has ultimately permitted free sale by all small growers owning upto 10 ha. In respect of large growers having more than 10 ha. 70% pooling is still insisted. Eventhough the international prices have reversed to the pre frost levels internal prices still rule very high. More than anything else the experience with coffee marketing during the last two years has shown the need for sophisticated market mechanism with over 95 percent of Indias Coffee growers being small and marginal growers, they need some institutional arrangement for guidance for marketing even under a free market system. Perhaps comark, the multistate co-operatives

recently registered could play a meaningful role in this regard. Domestic prices of Coffee has increased enormously in the internal market up to a level of Rs.200 a Kg. during 1994-95 against Rs.60 a year ago, as a result of the removal of the restrictions for export making the commodity beyond the reach of the common man.

Tea

4.36 The area and production of tea in Kerala during 1994-95 were 34656 ha and 65141 tonnes respectively. The production in Kerala as well as India during the year was lower than the previous year. According to press reports the decline in production during 1994-95 has come as a blessing in disguise as during the whole of 1994 the country has to carry forward an unsold stock of about 40 million Kgs. from the record crop

Table 4.21
Plantation Crops Area, Production, Productivity and Export

	1991-92		1992-93		1993-94		1994-95	
	Kerala	India	Kerala	India	Kerala	India	Kerala	India
Area (Ha)								
Tea	34708	420500	34488	422592	34624	422432	34656	424469
Coffee	84016	270513	84000	270513	82348	292467	82348	292467
Rubber	419174	488514	428864	499374	437138	508420	443300	515572
Cardamom	44008	81113	43386	81113	43456	81113	43320	81113
Production (Tonnes)								
Tea	66803	754192	54435	703931	66691	758063	65141	743780
Coffee	30960	180000	36170	161500	43472	208000	39000	180000
Rubber	343109	366745	368648	393490	408311	435160	442830	471815
Cardamom	3460	5000	2424	3000	4430	6600	4431	7000
Productivity (Kg/ha)								
Tea	1925	1794	1578	1666	1926	1795	1880	1752
Coffee	466	801	431	719	528	711	474	615
Rubber	1139	1130	830	1154	934	856	999	915
Cardamom	79	62	56	37	102	81	102	86
Export (Qty in Quintals)								
Tea	55820	216449	43168	180690	46363	154548	-	151050
Coffee	111457	111457	113602	113602	136690	136690	136404	136404
Rubber	-	-	-	-	-	-	-	-
Cardamom	553	553	190	190	342	342	255	255
Value (Rs. crores)								
Tea	258.42	1212.27	218.54	1058.70	298.68	1062.04	-	974.89
Coffee	349.01	349.01	380.00	380.00	586.00	586.99	1086.89	1086.89
Rubber	-	-	-	-	-	-	-	-
Cardamom	16.07	16.07	7.51	7.51	13.86	13.86	7.37	7.37

Sources : 1. Farm Guide
2. UPASI

* Export figure of Kerala refers to South India. Figures relating to tea area, production and yield refer to Calender year.

production in 1993. In Kerala also the production of tea during 1993-94 was higher than the estimates for 1992-93. Consequent to the collapse of U.S.S.R. the country lost its traditional market and it is yet to regain its original position.

Production statistics relating to plantation crops are given in table 4.21.

Supplies and Services

4.37 Distribution of seeds and seedlings arranged by the Department of Agriculture during 1994-95 includes 4598 M.T. of paddy seeds, 191.85 tonnes of pulses, 608.5 M.T. groundnut seeds, 9.87 lakh coconut seedlings, 60 lakh pepper cuttings and 1.78 lakh cashew grafts. The policy of Government is to build up a vibrant private seed industry through the introduction of a private nursery programme has not become fully operational. The private nurseries established with an one time assistance of Rs.25,000/ ha. requires careful patronage and support of the extension machinery during the initial phases.

4.38 The trend of fertilizer distribution during 1994-95 shows that the State has successfully overcome the initial shock and resultant decline in consumption during 1993-94 consequent to the sharp increase in fertilizer prices during 1993-94. However the consumption level has not been restored to the 1992-94. However the consumption level has not been restored to the 1992-93 level. The consumption which was 2.02 lakh tonnes in 1992-93 has dropped to 1.77 lakh tonnes in 1993-94 but subsequently increased to 1.99 lakh tonnes in 1994-95. Phosphatic fertilizer as a group is yet to recoup its original position. The increase in consumption recorded during 1994-95 has helped the State to improve its position in respect of

average consumption per ha. from 58.04 to 65.42 against all India average of 66.56 for 1993-94.

Fertilizer consumption statistics are given in table 4.22

Plant Protection

4.39 Keeping with the strategy of need based application of plant protection chemicals pursued by the State the consumption of chemicals was maintaining more or less a unavoidable minimum level till 1993-94. But the wide spread incidence of the quick wilt disease on pepper has desorted this balance by compelling the State to go in for large scale chemical control consequently the use of fungicides has recorded a four fold increase during 1994-95 compared to the previous years.

4.40 The average price of agriculture inputs during 1994-95 are given in Appendix 4.6.

Horticulture

4.41 Kerala has many comparative advantages for commercial production of certain selected fruits and vegetables. Pineapple, banana & plantain, special types of mangoes, sapota, jack etc. are some of the fruits which offer tremendous potential for commercial production. Kerala will be able to emerge as a major supplier in the international horticultural trade if the production processing and marketing of fruits and vegetables are systematically planned and organised through appropriate institutions which can acquire the knowhow, internalise them to suit our conditions and disseminate them for preparing the small farmers for quality improvement and enhanced production of the desired types. Eventhough most of the Southern State have geared their production fronts to make them competitive serious efforts in this direction are lacking in Kerala. The EEC aided Kerala Horticulture Development Programme is perhaps the only venture where systematic efforts in this direction are being done. The project which commenced its operation in 1992 is due for completion in December 1999. During 1994-95 a total of 125 farmers groups have been set up involving 2322 farmers. Cultivation of vegetables has been organised in 543 ha., banana in 173 ha and Mango in 16 ha. Establishment of the fruit processing plant is in progress at Moovattupuzha

4.42 Details of other programme implemented by the department of Agriculture are given in table 4.23 selected indicators of agricultural development are shown in table 4.24 Average farm prices of principal crops are given in table 4.25.

Table 4.22

Consumption of Fertilizers Kg. per ha. of Cropped area in Kerala

Sl.No.	Year	N	P	K	Total		N:PK %
					Kerala	India	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	1991-92	27.43	16.92	30.44	74.79	70.70	57.92
2.	1992-93	27.55	15.51	23.57	66.03	65.53	70.50
3.	1993-94	25.48	10.87	21.70	58.05	66.56	78.23
4.	1994-95*	26.65	13.10	25.67	65.42	NA	68.74

* Provisional

Source: Directorate of Agriculture

Table 4.23

Details of Other Programmes implemented by the Department of Agriculture

Sl. No.	Name of Scheme	Activities Supported
1.	Development of Arecanut	<ol style="list-style-type: none"> No. of Irrigation units established - 100 nos. Control of fruit rot disease - 9598.65 Ha. Eradication of Palms affected with Yellow leaf disease - 6450 Nos. Sprayers distributed - 190 Nos. Distribution of Arecanut Seedlings - 50500 Nos.
2.	Development of Cocoa	<ol style="list-style-type: none"> Laying out of new demonstration plots - 70 Nos. Establishment of Irrigation Units - 5 Nos. Rejuvenation of Unproductive Gardens (New) 252 Nos.
3.	National Biogas development Programme	<ol style="list-style-type: none"> No. of biogas plant Constructed - 1956 No. of Users training conducted - 24 No. of construction-cum-maintenance training conducted -10
4.	Soil testing and Quality Control	<ol style="list-style-type: none"> Fertilizer Samples Collected - 3489 Nos. Fertilizer samples Analysed - 3554 Nos. Pesticide Sample collected - 2095 Nos. Pesticide Sample analysed - 2284 Nos. Seed Sample collected -1 987 Nos. Seed sample analysed - 1487 Nos. Soil Samples Collected - 2.311 lakh Nos. Soil samples analysed - 1.67 lakh Nos.
5.	Development of Organic Manures through farmers organisation	<ol style="list-style-type: none"> Distribution of Green manure seeds - 587.05 MT Production and distribution of Urban Compost - 6000 MT. Production and distribution of rural compost - 2.214 lakh MT Trainings conducted - 10427 Nos. Bio fertilizer demonstration - 360 Nos. Farmers benefitted - 3,509 lakhs
6.	Promotion of Approved Nurseries	<ol style="list-style-type: none"> Assistance given to establish Private Nurseries - 117 Nos.
7.	Public participation in Agricultural production programme	<ol style="list-style-type: none"> Seminarts Conducted <ol style="list-style-type: none"> Krishi Bhavan Level - 2118 Nos. District Level - 14 Nos. State level - 1 No.
8.	Procurement processing and marketing of paddy.	<ol style="list-style-type: none"> Paddy procurrred - 21692.5 MT.

Source : Directorate of Agriculture

Table 4.24

Selected Indicators of Agricultural Development

Sl. No.	Programme	Unit	1991-92	1992-93	1993-94	1994-95
1	2	3	4	5	6	7
1.	Fertilizer Consumption					
	(a) Nitrogen	Tonnes	82874	83296	77599	81182
	(b) Phosphorus	"	51109	47250	33122	39939
	(c) Potash	"	91954	71792	66110	78205
2.	Plant Protection					
	a. Fungicide (Liquid & Solid)					
	in terms of technical grade	"	374.46	394.01	264.50	1038.99
	b. Insecticides (Liquid & Solid)					
	in terms of technical grade	"	325.24	302.17	297.64	305.67
	c. Weedicide (in terms of technical grade)	"	20.46	36.72	20.46	16.63
	d. Rodenticides (in terms of technical grade)	"	4.09	17.65	21.10	20.12
	e. Area under Plant protection	lakh ha.				
	coverage		7.25	8.10	8.70	10.50
	f. Rodent Control Operations	"	0.989	0.81	0.97	0.90
	g. Biological Control of Nephantic Serinopa					
	parasites liberated	Lakh No.	233.814	200.93	207.278	184.918
	h. Weed Control		1.432	1.39	1.42	1.20
3.	High Yielding Varieties of Paddy Seeds					
	distributed	Tonnes	1675	2865.74	4500	4598
4.	Quality Planting materials distributed					
	a. Cocunut Seedlings	Lakh No.	14.16	3.95	10.04	9.870
	b. Rooted Pepper Cuttings	"	39.00	35.00	55.00	60.00
	c. Cashew layers	"	-	0.79	3.95	1.78*
5.	Soil testing.					
	Soil Samples analysed	Nos.	213441	185400	187740	166869

* Cashew grafts

Source : Directorate of Agriculture

Table 4.25

Average farm prices of principal crops

Commodity	Unit	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	Percentage increase during 1994-95 over 1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Paddy	Rs./Qtl	291.89	299.61	374.76	420.80	414.53	494.86	119%
Tapioca	"	138.69	150.33	157.68	187.34	197.60	217.13	109%
Coconut	Rs/100 Nos	203.82	301.23	393.25	420.14	325.55	307.83	94%
Pepper	Rs./Qtl	3473.06	3229.85	2950.05	2616.59	3909.02	6687.43	171%
Ginger	"	2192.89	2523.55	2177.95	2490.50	2858.06	5250.29	183%
Cashewnut	"	1162.27	1330.75	2037.74	2000.41	2134.34	2355.36	110%
Sugarcane	Rs./M.T	340.97	376.35	365.49	354.41	440.00	546.23	124%
Areca nut	Rs./100Nos	14.59	26.49	31.48	33.01	33.65	36.73	109%
Banana	"	70.05	75.41	80.77	93.89	108.56	125.70	115%

Soil Conservation

4.43 Soil and moisture conservation assumes priority attention in view of the high rainfall pattern and the undulating terrain which make Kerala soils vulnerable to soil erosion. Unfortunately Kerala could not provide this basic infrastructural support in a uniform scale for all the crops and areas. Plantation crops particularly rubber & tea are the only crops which invariably receive this support before planting. In respect of crops like Coconut, Pepper, Cashew etc. the importance of providing proper soil conservation and land development support is not quite often realised by the small land marginal farmers. A large extent of the land coming under these categories requires integrated soil and moisture conservation and management for upgrading their productivity. According to a rough assessment about 15 lakh ha. are reported to be vulnerable to soil erosion. Against this the area so far covered through the regular programmes operated by the Soil Conservation Department till the end of 1994-95 is 1.28 lakh ha. During 1994-95 the area covered was 2519 ha against 2269 ha. in 1993-94. It is evident that the State could not earmark adequate resources under the State Plan for this important development support. However the activity received considerable thrust and momentum under two Centrally Sponsored Schemes namely National Watershed Development Programme and the River Valley Project, Kundah. The coverage under the programmes are given in table 4.26(A)

Table 4.26(A)

Name of Scheme	Physical (Area in ha.)		Financial (Rs. in lakhs)	
	1993-94	1994-95	1993-94	1994-95
State Plan	2269	2520	278.58	356.73
River Valley Project Kundah	3142	2658	90.79	197.04
National Watershed Development Programme	3607	4200	356.00	180.00
Total	9018	9378	725.37	733.77

4.44 The Soil conservation measures will be effective and perfect only if it is organised on a contiguous area basis covering a watershed. In the context of Kerala the unit cost of soil conservation measures can be brought down only

through the adoption of an integrated approach based on least cost technology. The National Watershed Programme sanctioned by Government of India for Kerala with a financial assistance of Rs.35.83 crores is to be considered as a boon for accelerating the soil conservation activities which are otherwise moving in a very slow pace of implementation for want of adequate budgetary resource. The programme which has commenced its implementation from 1990-91 is due for completion by the end of Eighth Five Year Plan and the 114 Watersheds where the programme is under implementation together would cover about 88276 ha. of area. The progress of implementation of the programme, however shows that there is huge shortfall in expenditure under certain categories of activities approved by Government of India. Item-wise progress under the scheme as on December 1995 is given in table 4.26(B)

4.45 The implementation of the programme requires close monitoring and appropriate modifications in programme content in respect of certain components to suit the local requirements.

4.46 OPEC assisted rainfed farming project under implementation in Kerala from 1991-92 onwards also provides soil conservation support of a substantial scale. The project is under implementation in 50 watersheds in the northern districts of Cannanore, Kozhikode, Malappuram covering an area of 30340 ha. The outlay approved for the project was Rs.54.42 crores including the credit component to be routed through NABARD. The implementation of this project particularly the soil conservation component is also not progressing satisfactorily. Poor performance of both these Government sponsored projects resulting in large proportion of the outlay remaining unutilised bring to light the inherent weakness of the organisational support provided for the implementation of such integrated development programmes where multi disciplinary service support is vital. It is high time that the responsibility for implementation of such programmes are entrusted to Non-Governmental Organisations or Watershed Development Committees. Soil conservation activities are expected to get a further boost during 1995-96 and 1996-97 under the special programmes involving an outlay of Rs.8.188 crores approved by NABARD under their Rural Infrastructural Development Fund.

Soil Survey and Land use Planning

4.47 Soil survey work is in progress covering 3.00 lakh ha. under reconnaissance survey and 0.55 lakh ha. under detailed soil survey during 1994-95.

4.48 Under the Land use Board preparation of a perspective plan for land use in Kerala is being attempted. The Land use Board has also prepared some sponsored projects aimed at sustainable development for Palakkad and Kasargode districts.

Table 4.26(B)
NWPR - Progress of Implementation
(Amount Rs. in Lakhs)

	State as a whole		
	Earmarked	Utilized	Unspent Balance
1. Basic activities	1433.20	370.56	1062.64 75%
2. Conservation drainage line treatment	1146.56	651.52	495.04 43%
3. Production System	788.36	221.45	566.81 71%
4. Livestock Management	214.98	50.37	164.61 76%
Total	3583.00	1293.90	2289.10 36% 64%

Animal Husbandry

4.49 Livestock management and allied activities make substantial contribution to the Kerala Economy by way of income generation, creation of employment opportunities particularly

for women, enrichment of soil through organic recycling, adding calorific value to the nutrition of people and above all constituting the most important source of farm power. It has established its sustainability over the years as a supplementary enterprise along with Agriculture in rural Kerala. Management of Livestock under the backyard system as originated in Kerala may perhaps be the ideal one which can find harmonious integration with the homestead system of living prevailing in Kerala. The State has made rapid strides in dairy sector through a well organised and scientific cross breeding programme. The fact that Kerala produces more milk than its staple food of rice itself speak of the commendable progress the State could make in this important sector. Even in the midst of such a colourful performance the emerging agricultural scenario in Kerala cannot be considered to be congenial for giving a commercial footing for the dairy industry in Kerala. The fragmentation of holdings leading to uneconomic marginal holdings giving very little scope for feed and fodder support and also the sharp decline in the area under rice cultivation act as major deterrents for sustaining the momentum in growth already achieved.

4.50 According to the latest census conducted in 1987 the State accounts for 34.24 lakhs cattle, 3.29 lakhs of buffaloes, 15.8 lakhs goat and sheep, 1.37 lakh pigs and 180 lakhs poultry. The share of State's livestock sector to the country is 1.75% of cattle, 0.43% buffaloes, 1.59% goat and sheep, 1.27% pigs and 6.62% of poultry. Details are furnished in the table 4.27.

4.51 Paddy based farming system and cattle rearing has been closely interdependent in the State

Table 4.27
Live Stock Population of Kerala and India

Sl. No.	Species	1982			1987		
		India	Kerala	%	India	Kerala	%
1.	Cattle	1924.50	30.97	1.61	1958.70	34.24	1.75
2.	Buffalo	697.80	4.09	0.59	769.70	3.29	0.43
3.	Goats	952.50	20.04	2.10	994.10	15.81	1.59
4.	Pigs	100.70	1.27	1.26	107.60	1.37	1.27
5.	Poultry	2077.40	145.10	6.98	2583.40	170.97	6.62

Source : i. Live Stock Census 1982 and 1987

ii. Report of the Technical Committee of direction in improvement of Animal Husbandry and Dairying statistics Government of India.

until a decade also. Consequent to the enormous shift in cropping pattern from food to cash crops farmers are not in a position to keep as much cattle as in the past and the situation has compelled the farmers being selective in maintaining the livestock. As a result there has been a drastic reduction in draught cattle with a corresponding increase in milch cattle. The need for systematic improvement in productivity of the stocks through herd improvement was also keenly felt. In the present day situation dairy farmers in Kerala are even reluctant to maintain the animals under dry conditions and the trend is to maintain always animals in milk through replacement

4.52 Expansion of cross breeding facilities and strengthening the veterinary services are the major strategies adopted by the State for livestock development. Accordingly Artificial Insemination (AI) facilities have been expanded with the objective of one unit for every 750 breedable cattle. So far 2097 AI Centres have been established and the capacity for artificial insemination has been stepped upto a level of around 14 lakh doses. As a result 62% of the breedable cattle has been converted as crossbred and the milk production increased from 10.78 lakh tonnes in 1982-83 to 21.18 lakh tonnes during 1994-95. The per capita availability of milk has also increased from 126 gm. to 192 gm. during this period.

4.53 The KLD Board has been entrusted with the responsibility for large scale production and distribution of frozen semen and the Department of Animal Husbandry is responsible for insemination through its ICD Projects and AI Centres. It is reported that the annual calving of crossbred animals is of the order of around 3 lakhs which is low compared to the total number of artificial inseminations performed. The performance of the AI Centres are presented in the table. 4.28.

4.54 KLD Board is the sole agency for the production and supply of inputs to the livestock sector. The Board maintains four bull stations at Mattupatti, Peerumade, Dhoni, Kulathupuzha for production of frozen semen of crossbred and pure bred bulls and buffalo bulls. The Board maintains 206 breeding bulls and murah buffalo bulls.

4.55 During the year the production of frozen semen was only 24.85 lakh doses against the production of 26.81 lakhs in the previous year.

Table 4.28

Number of Artificial Inseminations done and the calving recorded during the period from 1987-88 to 1994-95

Sl. No.	Year	A.I. done	Calvings recorded
(1)	(2)	(3)	(4)
1.	1988-89	1203755	238473
2.	1989-90	1251492	243055
3.	1990-91	1312613	221876
4.	1991-92	1376761	262549
5.	1992-93	1233760	261286
6.	1993-94	1353058	299358
7.	1994-95	1343533	327195

Source : Animal Husbandry Department

The distribution of frozen semen within the State was 15.36 lakhs tonnes which is higher than the previous year's achievement of 14.99 lakhs. Details of production and distribution of frozen semen by KLD Board is given in Table 4.29. The production of semen by the Board has declined from 26.81 doses to 24.85 in 1994-95 and it is mainly

Table 4.29

Production and Distribution of frozen semen and Artificial Insemination Conducted from 1988-89 to 1994-95

Sl. No.	Period	Production of Frozen semen (lakh doses)	Distributed inside the state (lakh doses)	Distributed outside the state (lakh doses)
(1)	(2)	(3)	(4)	(5)
1.	1988-89	20.12	13.64	6.48
2.	1989-90	23.46	14.29	7.80
3.	1990-91	25.52	15.92	6.75
4.	1991-92	26.57	15.92	8.15
5.	1992-93	29.43	14.61	9.90
6.	1993-94	26.81	14.98	9.90
7.	1994-95	24.85	15.36	10.83

Source :- K.L.D. Board

due to reduced demand from outside the state. Apart from the Frozen Semen technology the Board is also engaged in livestock research and development activities like embryo transfer, production of liquid nitrogen, fodder seed production and training programmes. During 1993-94 the KLD Board started a new programme namely Premium Bull AI programme. As per the programme the Animal Husbandry Department has

identified 63 AI centres as premium bull AI centres in different parts of the State and the Board will provide frozen semen of high genetic value from exotic breeds at a rate of Rs.50/- per dose. Details of production and utilization of frozen semen during 1994-95 is given table 4.30.

Table 4.30

Production and Utilisation of frozen semen and the Number of Artificial Inseminations conducted during the period from 1988-89 to 1994-95

Sl. No	Year	Production of frozen semen (lakh doses)	Utilisation of frozen semen Kerala (lakh doses)	Number of Artificial insemination conducted (lakh Nos.)
(1)	(2)	(3)	(4)	(5)
1.	1988-89	20.12	13.64	12.96
2.	1989-90	23.45	14.29	13.58
3.	1990-91	15.52	15.95	15.00
4.	1991-92	26.57	15.92	15.12
5.	1992-93	29.43	14.61	13.88
6.	1993-94	26.81	14.99	14.24
7.	1994-95	24.85	15.36	14.88

Source : K.L.D. Board

4.56 During 1994-95, 6950 doses were distributed. Under the Embryo transfer programme 36 embryos were transferred on recipient cows during the year. During 1994-95, special training were arranged for 395 professional and technicians in different courses on Animal Husbandry and Fodder Development.

4.57 While KLD Board is sole responsible for the production and supply of frozen semen, AI Service is rendered by the Animal Husbandry Department through the network of AI Centres. Total AI Centres in the State during 1994-95 come to 2097 nos. comprising 1921 ICDP and Non ICDP centres run by the Department, 50 centres by Dairy Department and another 126 nos. of AI Centres are operated by APCO's, Tata Tea and other voluntary agencies. The details are furnished in the table 4.31.

Table 4.31

A.I. Centres in the State During 1994-95

Department/Institution	No. of A.I. Centre
Department of Animal Husbandry (Both ICDP and Non-ICDP)	1921
Department of Dairy Development	50

APCOS	61
Tata Tea	27
Other Voluntary Agencies	38
Total	2097

4.58 Livestock development in general has witnessed sustained growth with steady and continuous improvement in the production of almost all livestock products though in varying degrees. During 1994-95 Milk production increased to 21.18 lakh tonnes from 20.01 lakh tonnes in 1993-94. Egg production increased to 1918 million from 1844 million. Meat other than poultry meat increased to 103551 tonnes from 101223 tonnes. Poultry meat also increased to 30,000 tonnes from 28000. The growth rate of products other than milk is not than much impressive. Kerala once surplus in the matter of egg production is now dependent on other states for meeting her daily requirement. Similarly, in respect of meat also almost the entire supply of livestock that is from the cattle that is brought from the neighbouring states. It is high time Kerala lays more attention on those important segments of livestock development also. Broiler poultry, piggery and male calf rearing etc. offer tremendous potential for commercial development in Kerala. Year-wise details of production of livestock products are presented in the table 4.32.

Table 4.32

Year-wise estimates of Milk, Egg and Meat Production in Kerala from 1989-90 to 1994-95

Sl. No.	Year	Milk (lakh tonnes)	Egg (million Nos.)	Meat other than Poultry (tonnes)	Poultry Meat (tonnes)
(1)	(2)	(3)	(4)	(5)	(6)
1.	1989-90	16.00	1500	90,000	20000
2.	1990-91	16.90	1550	95,000	22000
3.	1991-92	17.85	1605	96,645	24000
4.	1992-93	18.89	1661	105,000	26,000
5.	1993-94	20.01	1844	101,223	28,000
6.	1994-95	21.18	1918	103,551	30,000

Source :- Department of Animal Husbandry

4.59 Though the infrastructure and supporting facilities built up over the years helped in attaining a breakthrough in production of milk, the productivity still remains far below the potential. The productivity is only around 5.26 kg. which needs to be increased through scientific feeding & better management. Likewise there is considerable scope for bringing down the age at first calving from 40 to 30 months and reduce the intercalving

period. As the cost of rearing the crossbred calves upto the breeding stage is considerable, most of the small growers do not pay adequate attention for scientific feeding and proper care of these young ones. The State Government is therefore implementing scheme for subsidising the concentrate feed to be supplied for the purpose covering around 250000 calves combined with the veterinary cover and insurance. As a result it is reported that, there is significant improvement in productivity in the case of animals under this feeding programme and has also helped in bringing down the age at first calving from an average of 43 months to 30 months. Year-wise details of calf insurance is detailed in table no.4.33.

Table 4.33
Year-wise details of Calf Insurance

Year	No. of Calves insured under feed Subsidy	Amount Subsidised (Rs. in lakhs)
1987-88	1432	0.645
1988-89	2186	0.992
1989-90	4115	2.007
1990-91	4769	2.385
1991-92	11431	11.43
1992-93	1673	1.67
1993-94	25000	25.00
1994-95	10000	10.00

4.60 Kerala State has a very fragile fodder base and the scope for further improvement in production and supply of fodder is limited. The large scale conversion of paddy lands for other crops has further aggravated the problem by reducing the supplies of paddy straw. In the matter of concentrated feed also the State is not self-sufficient and the supplies are erratic and costly. The present capacity for supply of cattle feed built by KLD Board is around 500 tonnes per day which is not adequate to meet the requirement. The State is therefore going ahead with a programme for establishing another cattle feed plant with a capacity of 500 tonnes.

4.61 The Animal Health Care Programmes are implemented by the department of Animal Husbandry through the network of veterinary institutions comprising Veterinary poly clinics, Veterinary hospitals, Mobile Farm Aid Units and District Veterinary Clinics. With a view to strengthening the Veterinary health care facilities in the rural areas State Government has declared

it as a policy to establish one veterinary dispensary in every panchayat of the State by the end of 1995-96. Veterinary services normally cover about 33 lakh animals and the achievement during 1994-95 was 33.18 lakhs. The State has already established its own facilities for the production of vaccines and other veterinary biologicals. The Veterinary Biological Institute at Palode is assigned with this responsibility. Details of production from the institute is given in appendix 4.7.

4.62 The traditional backyard system of poultry rearing needs reorientation and commercial touch to make it viable. Availability of good quality chicks for regular replacement is a major constraint in sustaining and augmenting the production. The Kerala State Poultry Development Corporation has made a small beginning in the area of chick production by establishing a broiler chick production unit of 2.5 lakh capacity at Thiruvananthapuram and an eggler chick unit at Kottiyam in Kollam District. A Poultry feed mixing unit with a capacity of 500 M.T. is also on the process of establishment.

4.63 In the area of duck production also the State is gradually losing its past glory. Organised programmes on commercial lines for establishing the activity in suitable locations is therefore called for. A programme for insuring ducks owned by the traditional duck farmers is now in operation.

4.64 Livestock Insurance Scheme for cattle introduced through the United India Insurance Company is getting popular among small and marginal farmers. Under the scheme 10,000 calves were enrolled during 1994-95. The details are furnished in the table 4.33.

The average market price of the livestock products as well as livestock feeds for the last three years are given in appendix 4.8.

Dairy Development

4.65 Dairy Industry in Kerala comprises of the organised sector led by the Kerala State Co-operative Milk marketing Federation as well as the unorganised sector supporting large number of milk vendors. With the advent of Operation Flood Programme under the aegis of the KCMMF a well established system for regular procurement of milk from producers and distribution of standard milk to the regular consumers became a reality. With the commissioning of the North Kerala Dairy Project the entire State had been brought under

the network of APCOS for procurement of milk. Kerala Co-operative Milk Marketing Federation is the implementing agency of Operation Flood Programmes in Kerala. The Federation operates through 1721 Anand Patern Co-operative Societies with a membership of 4.79 lakh. Data on procurement and distribution of milk by the KCMMF in the past decades show that the milk co-operatives are making inroads into the unorganised sector and giving a very effective lead in stabilizing the marketing of milk in stronger grounds. During 1994-95 the procurement programme of the Federation increased by 7% and the distribution by 11%. Details of the activities supported by the Federation is furnished in the table 4.34.

the milk production has not shown any increase during the months of November and December due to poor spread of rainfall during the North East Monsoon. On the otherhand the demand for milk has increased considerably. The seasonal shortage in milk supplies is thus more or less a regular phenomenon in Kerala. The total deficit, i.e., actual sales in excess of actual procurement during the current season was to the tune of 58 lakh litres. During the previous year also the quantity of milk sold in excess of procurement was 58 lakh litres. The deficit in milk procurement in the State during 1995 was met by purchase of fluid milk and milk powder from Karnataka and Maharashtra respectively. Upto 110 lakh litres of milk was

Table 4.34
Performance of KCMMF

Sl. No.	Particulars	1991	1992	1993	1994	1995
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	No. of Apcos registered (Cum)	1305	1500	1619	1712	1824
2.	No. of Apcos functional	1283	1471	1523	1621	1721
3.	No. of Members in Apcos (Cum)	300433	351883	382898	438952	479158
4.	No. of Women in Apcos	35083	44287	47600	59896	65033
5.	No. of SC/ST members in Apcos	18952	22976	25121	25183	26747
6.	Average Milk procured/day by KCMMF (litre)	224818	309732	355200	406009	435528
7.	Average Milk Marketed per day	291685	320763	390700	408640	454567
8.	Direct Employment generated (Persons)	2903	3283	3608	4052	4302
9.	Average price paid to SOC/LI (Rs./Ps.)	5.31	6.34	6.34	6.95	7.69
10.	Average price paid to producers/litre (Rs./Ps.)	5.18	6.15	6.15	6.76	7.55
11.	Mobile regular vety routs	19	18	19	17	16
12.	No. of cases treated by regular routes (yearly)	29686	35205	34859	34492	30679
13.	No. of emergency Vety route	13	13	14	15	15
14.	No. of Cases treated Yearly	194444	206718	207846	211199	182423
15.	Cattle feed sales (MT)	44139	47439	42626	53917	-
16.	Quantity of Ghee Produced	794990	830805	862080	-	-

4.66 In a State like Kerala where the production of milk is concentrated in the small farm sector and the ultimate supplies are dependent on seasonal factors, maintaining of uninterrupted supplies particularly during lean periods is a very difficult task. The milk procurement in Kerala normally shows a declining trend from January to May and again during August and September. The surplus period coincides with the South West Monsoon in June/July, and with the North East Monsoon in October-December, during which period the milk production increases by about 25%. However, during the calendar years 1994 and 1995,

thus procured from outside the State during 1995. All attempts are being made to maintain the supplies by procurement of milk and milk powder from outside sources for meeting the present crisis as well.

4.67 The Veterinary services rendered by the Federation is noteworthy. During the year 16 mobile regular veterinary routes and 15 emergency routes were operated. Under regular routes 30679 and under emergency routes 182423 cases were treated during 1994 - 95.

The price of milk paid by KCMMF for

procurement and received for sale is shown in table 4.35.

Table 4.35
Average price of milk paid by KCMMF

Sl. No.	Year	Procurement/ litre (Rs.)	Sales/ litre (Rs.)
1.	1992-93	5.66	8.00
2.	1993-94	6.95	9.00
3.	1994-95	7.69	10.00

Source : KCMMF

The procurement and sale details of the dairies in the State during 1994 are furnished in appendix 4.9.

4.68 Promotion of fodder cultivation is one of the major responsibilities assigned to the Dairy Development Department. The fodder base in Kerala is very weak and the scope for bringing substantial area under cultivation is very limited. Enrichment of fodder base through a multipronged approach of encouraging homestead cultivation, commercial fodder production through milk co-operatives, appropriate treatment and conservation of house wastes for feeding cattle, preservation of green matter etc. being pursued. Commercial fodder production initiated by the Dairy Department involving selected dairy co-operatives and arranging the market tie up through them is slowly picking up. During 1994-95 additional fodder cultivation was organised in 107 ha. and 17,000 MT. of fodder was produced. In the department own farm 5476 M.T fodder was produced during 1995.

During the year 135.15 MT of fodder seed were supplied to the farmers and the fodder produced are furnished in table 4.36.

Table 4.36
Production, procurement of fodder and Area under Fodder Cultivation

Sl. No.	Year	Qty. of seeds produced(MT)	Qty. of seed supplied to farmers(MT)	Area Covered under fodder (HA)	Qty of fodder produced (MT)
(1)	(2)	(3)	(4)	(5)	(6)
1.	1989-90	36.16	150.00	4060	101500
2.	1990-91	48.01	100.00	3800	100000
3.	1991-92	50.73	100.00	3780	99500
4.	1992-93	68.30	100.00	6844	151000
5.	1994-95	30.71	135.15	6951	168000

Source :- KLD Board and Dairy Development

Fisheries

4.69 Kerala with its long stretch of coastline extending over 590 Kms. is endowed with rich marine resources. The economic zone upto a depth of 200 meters with proximity to Kerala sea coast is spread over 36000 sq. Kms. Marine wealth of Kerala is not only rich in its resource base but also in species diversity. The per capita availability of fishable area in Kerala is only 10 ha. as against 177 ha. in Gujarat and 37 ha. at the national level. There are about 222 fishing villages fringing the coastline of Kerala, with nearly 300 fish landing centres.

4.70 Fisheries sector in Kerala support about 3.3% of the population in Kerala. According to the recent estimates by the Department of Fisheries, the total marine fisherfolk population is around 769163 and the population dependent on inland sector is around 223137. Among the districts the Alapuzha ranks first in the number of population (168771) followed by Thiruvananthapuram (163136). Palakkad has the least fisheries population (1008). District-wise details of population are given in Appendix - 4.10.

4.71 Fishing efforts are largely concentrated in the marine sector, the pressure on the marine sector particularly in the inland coast quite often exceeding its carrying capacity. There are about 50024 crafts operating in the marine waters of Kerala. Of which 4206 are mechanised, 17362 are moto-rised, and 28456 are non-moto-rised. The district-wise details of crafts in Kerala are given in Appendix 4.11

4.72 Fishing in the marine sector is largely concentrated in the inshore areas of 50 metre

depth. Since 1980 the fish production in Kerala was on the increase except in the 1985. When the production declined to an abnormal low of 3.33 lakh tonnes. The peak level of production was recorded in 1989 and 1990 touching a level of around 6.5 lakh tonnes. However the data on fish catch for the subsequent period shows that such high level of catches are not sustainable. Production has come down to around 5.5 to 5.7 lakh tonnes in the subsequent years. The growth rate worked out based on the sustainable level of around 5.5 lakh tonnes attained by the end of the decade (1980-90) was around 141% which is much higher than the national growth rate of 50% recorded during the period. Consequently the contribution of Kerala in the total production of fish in the country has increased from 18.96% to 30.66%.

4.73 In contrast to the impressive growth recorded by the Marine sector, the Inland sector in Kerala presents a very dismal picture with its contribution to the national fishnet remaining almost constant all these years. The inland production in Kerala (1990) is only 0.34 lakh tonnes against 14.83 lakh tonnes for the country. The percentage of contribution is only 2.34%. Eventhough there is marginal improvement in the growth of inland fish production in recent years it is nowhere near the all India growth rate. The blue revolution which has embraced most of the Southern states during the late eighties and early nineties by passed Kerala. Details of fish production in India and Kerala are given in table 4.37.

Table 4.37
Fish Production in Kerala and India

Year	Inland Production		Marine Production		% of Kerala to all India	
	Kerala	India	Kerala	India	Inland	Marine
	(2)	(3)	(4)	(5)	(6)	(7)
1981	26.0	999.2	274.4	1444.8	2.60	18.96
1982	26.5	939.6	325.4	1427.4	2.82	22.78
1983	27.0	987.4	385.3	1519.3	2.73	25.35
1984	27.3	1082.1	424.7	1779.3	2.52	23.87
1985	28.5	1090.1	332.5	1734.1	2.61	19.17
1986	29.0	1214.1	335.8	1708.0	2.38	19.66
1987	26.5	1259.1	283.1	1652.0	2.10	17.14
1988	27.8	1369.4	468.8	1775.0	2.03	26.41
1989	32.5	1381.05	647.5	2230.2	2.35	29.03
1990	34.7	1483.63	662.9	2162.3	2.34	30.66
1991	40.6	N.A	564.1	2222.1	--	25.38
1992	42.3	N.A	560.7	2277.0	--	24.59
1993	45.5	N.A	574.7	2245.1	--	25.60
(93-94)						
1994	48.2	N.A	568.0	N.A	--	--
(94-95)						

4.74 The landing pattern of the marine fisheries in recent years also shows some unhealthy trends. The fishing efforts are always directed towards high value species even beyond their maximum sustainable level. Data on catches of prawn speaks of this trend. Against the maximum fishable potential of around 56000 tonnes, the landing of prawn during 1994 was 71871 tonnes. It was only 49118 tonnes in 1993. Species-wise trend of fish production both under inland and marine sector is given in Appendix 4.12 and 4.13 respectively.

4.75 The Fish Farmers' Development Agencies are functioning in all the districts for promoting and popularising aquaculture. They have so far enrolled 1160 farmers surveyed 1597 ha. water area and organised fish culture in 342.5 ha. Input subsidy to the tune of Rs.3.13 lakhs and reclamation subsidy to the tune of Rs.4.33 lakhs were also disbursed through these agencies during 1995.

4.76 Brackish water Fish/Prawn Farmers' Development Agencies are functioning only in 6 districts. An area of 46 ha. has been brought under prawn culture through the promotional programmes operated by them in 1995. An amount of Rs.33.75 lakhs has been disbursed as financial support through these agencies - since their inception. These agencies have so far brought an area of 877.81 ha. under prawn culture.

4.77 Supply fish seeds for aquaculture is mainly through the five fish seed farms functioning under the Fisheries Department. During 1995 117.18 lakh fish seeds were distributed from these seed farms.

4.78 In the inland sector culture fisheries has been organised in five reservoirs namely Malampuzha, Peechi, Vazhani, Pothundy, Chulliar under an externally aided project with German assistance. The programme organised on a pilot basis has been successful in evolving a viable and sustainable management system. Consequently the project is likely to be extended to other reservoirs as well.

4.79 Kuwaiti Fund assisted Prawn culture project implemented by ADAK (Agency for Acquaculture project, Kerala) is the major venture launched by Kerala in the inland fisheries sector. The preliminary survey for identifying the areas suitable for prawn culture is already over and they

have identified about 65000 ha. brackish water area suitable for the purpose. The project provides for private participation in prawn culture and the initial investment including the lay out of the farm will be done by the Project authorities on a turn key basis. The initial response for participation in the project is very encouraging and the pilot studies were successful. Accordingly the Agency could cover 195.94 ha. are under semi-intensive prawn farming. Setting up of hatcheries and feed mills under the project is also progressing.

4.80 The Kerala State Co-operative Federation for Fisheries Development Ltd. (MATSYAFED), the apex body of the Fishermen Co-operatives has been implementing the NCDC assisted Integrated Development Project. The Phase-I of the project with a total outlay of Rs.555.84 lakhs was completed during 1985-86 to 1990-91 covering 23 primary co-operatives and enabling 3158 fishermen to become owners of fishing inputs. Phase-II of the project with an estimated cost of Rs.1034.28 lakhs has been completed benefiting 6659 fishermen. The third phase of the project at a cost of Rs.3560 lakhs is now under implementation. So far an amount of Rs.1979.19 lakhs has been spent and 8223 fishermen were benefitted. The details of physical and financial achievement of this NCDC project are given in Appendix 4.14.

4.81 Project Report has been prepared at an estimated cost of Rs.210 crores for the implementation of a IV phase of the NCDC assisted 'Integrated Fisheries Development Project' and is send to Government for approval and onward transmission to NCDC. On implementation of this project it is expected that 75% of the small scale fish workers (1.25 lakhs) will be brought under the co-operative fold.

4.82. Housing is one of the important activities supported by the Federation. The HUDCO assisted subsidised housing scheme is under implementation through the Federation. So far 29017 houses have been completed under the scheme, which includes 708 houses constructed in 1995. In addition to this the Department of Fisheries also operates a housing scheme through panchayats with assistance from the National Fishermen Welfare Fund. Under this scheme 1229 number of houses have been completed including the achievement of 315 houses during 1995.

4.83 The performance on the export front

was encouraging during 1994-95 when compared to the previous year. The quantity exported from Kerala was 74576 tonnes in 1994-95 which showed an increase of 10767 tonnes over the previous year. However Kerala could not cope up with the level of increase recorded at the All India level. The all India exports during 1994-95 was 307337 tonnes (25.98 %) when compared to the quantity exported during 1993-94. The exports from Kerala in 1994-95 valued at Rs. 81496 lakhs compared to Rs.62153 lakhs in 1993-94 an increase of about 31%. The All India exports in 1994-95 valued at Rs.353529 lakhs. The emerging trend thus reveals that Kerala is finding it difficult to sustain the level of export both in quantity and value. A breakthrough is possible only by promoting prawn culture on an organised scale. The details of marine products exports from Kerala and India from 1982-83 to 1994-95 are furnished in Appendix 4.15

Fishing Harbours and Landing Centres

4.84 The Harbour Engineering Department is entrusted with the responsibility of constructing Fishery Harbours and Landing Centres. Vizhinjam , Neendakara , Thankassery , Munambam , Puthiyappa , Moplay Bay , Chombal and Kayamkulam are the Harbours under construction. Of these Neendakara Harbour has been commissioned in 1988. Thankassery , Munambam and Puthiyappa are expected to be completed by the end of VIII Plan. New Mahe , Thottapally , Palacode , Cheruvathur , Dharmadom , South Paravoor and Chettuvali are the seven centers taken up for landing of mechanised boats. Five centres have been commissioned and the work in one centre is in progress. Construction in the South Paravoor centre has been deferred for want of required land. Landing centres for traditional fishermen at Vizhinjam South, Vallikkunnu, Vellayil Beach , Quilandy , Chalil Gopalpettah , Arthungal are at various stages of construction. The cumulative investment so far made on fishing harbours and landing centres works out to Rs. 5515 lakhs as on 31-3-1995. Details of physical and financial achievements are furnished in Appendix 4.16

Kerala Fishermen Welfare Fund Board

4.85 The Kerala Fishermen Welfare Fund Board is concerned with the welfare and social security of fishery population. Under the various Welfare and Relief schemes the Board has

distributed an amount of Rs.325.88 lakhs benefiting 35151 families during 1994-95. This is against Rs.3.14 crores disbursed to 28969 families in 1994-95. Scheme-wise physical and financial details for 1993-94 and 1994-95 are furnished in Appendix 4.17

4.86 Another major relief scheme implemented by the Fisheries Department is the Saving-cum-Relief scheme. The scheme has good appeal among fishermen. During the year under review an amount of Rs.802.94 lakhs has been disbursed to 81089 nos. of fishermen.

Forestry & wild life

4.87 The Forest area in Kerala, as per the data published by the Forest Department is 11232.82 Sq. Km. This includes 9157.16 Sq. Kms. of reserve forests, 134.79 Sq. Kms. of proposed reserve forests and 1890.87 Sq. Kms. of vested forests. A marginal decrease of 9.15 Sq. Kms. has been reported in the area under forest during 1994-95.

4.88 There is increasing awareness among the public in protecting the forest eco system in Kerala and as a result there is gradual but steady improvement in regenerating the degraded forests. Thanks to civic consciousness and the vigilant protective measures of the Forest Department there are very positive signs of improvement in forest protection and management. The State Forest Report published by the Forest Survey of India for the years 1991 and 1993 bear testimony to this observation. The variation in recorded forest area and actual vegetation cover as published by them are given in table 4.38

Table - 4.38

Recorded Forest Area and Actual Vegetation Cover - Comparative situations

(Area in sq. Kms.)

Sl. No.	Station/Union Territories	Recorded Forest Area		Actual Vegetation Cover	
		1991	1993	1991	1993
(1)	(2)	(3)	(4)	(5)	(6)
1.	Andhra Pradesh	63726	63726	47290	47256
2.	Himachal Pradesh	37591	37591	11780	12502
3.	Assam	30708	30708	24751	24508

(1)	(2)	(3)	(4)	(5)	(6)
4.	Kerala	11222	11222	10292	10336
5.	Madhya Pradesh	155414	155414	135785	135596
6.	Maharashtra	63861	63861	44044	43859
7.	Tamil Nadu	22699	22699	17713	17726
8.	Uttar Pradesh	51502	51502	33609	33961
	All India	770078	770078	639182	640107

4.89 Among the various forest plantations Teak occupies the prominent position with 48.56% of the total area. Compared to the total area under forest plantation in 1994 (155072 ha.) there is a marginal increase in 1995 (155750 ha.). The increase is mainly in Teak, Bamboo, Rosewood and in Mixed plantations. Species-wise area under forest plantations from 1989 to 1995 is furnished in Appendix 4.20

4.90 Forest revenue in Kerala has recently become a major source of income to the State. The revenue earnings are mainly from the sale of forest and non-forest produces. The net revenue from forest sector during 1994-95 was Rs.136.88 crores which shows an increase over the previous year. Details of forest revenue from 1989-90 to 1994 are furnished in Appendix 4.21

4.91 Among the various forest produces, Timber, Firewood, cardamom, Honey, Reeds Bamboo, Sandal wood etc. are the major items. Production of timber both round logs and round poles shows an increase in 1994-95 over the year 1993-94. Round log increased by 44810 cum. and the round pole increased by 54276 nos. Production of charcoal during 1994-95 was 293.250 tonnes. On the other hand the production of Reeds, Bamboo, and sandal wood has declined. The details of major forest produces during the last 4 years are given Appendix 4.22.

Social Forestry

4.92 Phase II of the project which has been conceived as an integrated project for management of forest ecosystem in Kerala is under negotiation with World Bank for assistance.

Wildlife

4.93 The Wild life sanctuaries (II), Tiger reserve (I) and national Park (2) cover about 20% of the total forest area in the state. Sanctuary wise details are furnished in Table No.4.39.

Table 4.39

Sl. No.	Name of Wild life Sanctuary	Area	District	Year of formation
1	2	3	4	5
1.	Eravikulam National Park	9700	Idukki	1976
2.	Silent Valley " "	8952	Palakkad	1985
3.	Neyyar Wild life Sanctuary	12800	Trivandrum	1958
4.	Peppara " "	5300	"	1983
5.	Shenduriny " "	10032	Quilon	1984
6.	Idukki " "	7760	Idukki	1976
7.	Chinnar " "	9044	"	1984
8.	Thattakad Bird "	2516	"	1983
9.	Peechi-Vazhani"	12500	Trissur	1958
10.	Chimmoni " "	1000	"	1984
11.	Parambikulam " "	27414	Palakkad	1985
12.	Wayanad " "	34444	Wayanad	1985
13.	Aralam " "	5500	Kannur	1984
14.	Periyar Tiger Reserve	77754	Idukki	1950

Agricultural Marketing

4.94 In the absence of an organised Industrial network for processing the agricultural products, most of the commodities produced in the state move out of Kerala in their raw forms for processing and distribution. As the cropping pattern of Kerala is predominated by export oriented cash crops and their production is concentrated in the small farm sector, marketing support is critically important for Kerala Agriculture. In the context of the fast changes that are taking place in the farm front towards commercialisation and multilateral trading arrangements the state is finding it extremely difficult to maintain its share in the market for commodities like pepper, ginger, rubber cardamom and cashewnut in which the state had a near monopoly in the past, many of them are facing severe competition in the global markets as well as domestic markets. As the production is spread over millions as tiny holdings mobilising marketable surpluses primary processing, transport etc. are all becoming difficult as well as costly. Eventhough cooperatives are operating in the market they are yet to gain any effective control on the market forces. With a view to organise indepth studies on the implication of the new trends emerging in the national and international markets as a consequence of the trade liberalisation and other-economic reforms and to advice the

Government and the farming community on policy matters the state Government has set up a Prices Board as an advisory body.

4.95 The main agencies functioning in the co-operative sector for marketing of agricultural produce are Kerala State Co-operative Marketing Federation Ltd. (MARKETFED), The Kerala State Co-operative Rubber Marketing Federation Ltd. (RUBBER MARK), The Regional Agro Industrial Co-operative of Kerala Ltd. (RAIDCO). Central Arecanut and Cocoa Marketing and processing Co-operative Ltd (CAMPO), Kerala Kera Karshaka Co-operative Federation Ltd. (KERAFED) and Cashew Apex Industrial Co-operative Society (CAPEX). The commodities handled by the Kerala State Co-operative marketing Federation ltd. include Copra, pepper and other spices. The Business handled by MARKETFED during 1993-94 and 1994-95 are given in table 4.40

Table 4.40

Commodities handled by MARKETFED

Sl No.	Commodities	1993-94 value Rs. in lakhs	1994-95 value Rs. in lakhs
1.	Fertiliser	1563	1459
2.	Pesticides	93	1071
3.	cement	10	14
4.	Sprayer	..	..
5.	Copra & oil	702	3055
6.	Spices & Agricultural Products	673	345
7.	Spices in consumer packets	..	26
8.	Raw cashewnut	..	5277
9.	Arecanut	..	22
10.	Export spices pepper & other	3	12
Total		3049	11281

Procurement under Government schemes

		(Amount Rs. lakhs)	
1.	Copra	..	2400
2.	Pepper	495	..
3.	Cloves	..	3
4.	Raw Cashewnuts	..	4900
		495	7303

4.96 The Rubber Marketing Federation together with 25 member societies is engaged in procurement and Marketing of Rubber. The activities of the Federation include procurement and marketing of rubber, processing of crumb rubber, supplying of fertilizers and other inputs and undertaking serial spraying of rubber plantations. The Federation has a network of seven sales branches in New Delhi, Bombay, Calcutta, Faridabad, Ghaziabad, Jalandhar and Ahmadabad and ten purchase depots in Thiruvananthapuram, Vithura, Puthuppady, Arakkunnam, Nilambur, Irity, Poovathilappu, Karuvarakundu, Yendayar, and Sullia. Details of procurement of Rubber are given in table 4.41.

Table 4.41

Details of Procurement of RUBBER MARK during 1993-94 and 1994-95

Commodity	1993-94		1994-95	
	Quantity MT	Value Rs.lakhs	Quantity MT	Value Rs.lakhs
Rubber	41500	8836.00	38556	13912.29

4.97 The Central Arecanut and Cocoa marketing and processing Co-operative Limited (CAMCO) is a joint venture which has its area of operation in Kerala and Karnataka. the Governments of Kerala and Karnataka are share holders of the organisation. the Head office of the organisation is at Mangalore in Karnataka State. CAMPCO is mainly engaged in procurement and sales of cocoa and Arecanut. It has also one Chocolate Factory and one Factory for production of copper sulphate. The activities of CAMPCO during 1993-94 and 1994-95 are presented in Table 4.42 and 4.43.

Table 4.42

Business of CAMPCO during 1993-94 & 1994-95

Sl. No.	Commodity	1993-94		1994-95	
		Qty MTs	Value Rs. in lakhs	Qty MTs.	Value Rs. in lakhs
1	2	3	4	5	6
1.	Arecanut				
	a. Procurement	1795.73	9647.03	2421.66	15867.50
	b. Sales	1865.17	10891.82	2329.67	16177.45
2.	Cocoa				
	a. Cocoa pods	4.98	1.80	2.08	0.53
	b. Wet Beans	215.19	286.66	343.10	560.07
	c. Dry Beans	7.85	16.03	1.55	10.00
3.	Copper sulphate	92.775	41.50	381.852	166.61

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Table 4.43

Production and sales of Chocolate by CAMPCO during 1993-94

Sl. No.	Item	Production		Sales	
		Qty. (MTs)	Value	Qty MTs	Value
Rs. in lakhs					
1.	Chocolate	484.400	468.71	468.71	466.19
2.	Semi finished	827.900	598.59	598.59	608.54

CAMPCO is manufacturing Chocolate for M/s NESTLE INDIA LTD. during 1994-95 2675.01 MTs of chocolate was produced for NESTLE. CAMPCO has produced 258 MTs of copper sulphate during 1994-95.

4.98 The Regional Agro Industrial Co-operative of Kerala Ltd. (RAIDCO) is a co-operative Organisation engaged in the production and distribution of Agricultural implements. During 1993-94 RAIDCO distributed 4931 Pumpsets, 3068 Sprayers, 573 Rubber Rollers and 60 Tillers.

4.99 The Kerala Kerakarshaka Sahakaran Federation (KERAFED) is the Agency created for the integrated development of coconut through procurement, processing and marketing of coconut and its products. Primary Agricultural Credit Societies, 898 in number are the members of this Federation.

Procurement and Sales by KERAFED during 1993-94 and 1994-95 are given Table 4.44

Table 4.44

Procurement and Sales by KERAFED during 1993-94 and 1994-95

Sl. No.	Particulars	1993-94		1994-95	
		Qty MT	Value Rs. in lakhs	Qty MT	Value Rs. in lakhs
I. PROCUREMENT					
1)	Copra	2225.94	5743.24	50318.04	14839.63
II. SALES					
1)	Copra	613.53	1528.64	50318.04	11839.63
2)	Coconut Oil	877.30	3177.17	1183.25	4078.85
3)	Coconut oil cake	408.79	241.41	286.21	164.93

4.100 KERAFED was appointed by NAFED as the procurement agency on behalf of them under the support Price Scheme. The spectacular improvement in procurement operation by the Federation during 1994-95 was due to this arrangement. Apart from acting as a designated

agent for procurement of copra on behalf of NAFED Kerafed by themselves could not make any contribution in salvaging coconut from the sharp decline in price which the commodity faced in 1994.

4.101 KERAFED is selling coconut oil in container packets under the brand name 'KERA' in packs of size 1000 gms, 1000 ml, 500 ml, 200 ml and 100 ml. Medium Size packages of 5 Kg and 15 Kg are also available.

4.102 As regards processing units the first oil mill was commissioned at Karunagappilly in Kollam District with a capacity of 200 Tonnes of copra per day. The other two units proposed at Naduvannur in Kozhikode district and at Vytilla in Ernakulam District are under construction. The project is under suspended animation pending clearance from EEC for rescheduling and revalidation of the project.

Production by KERAFED during 1993-94 and 1994-95 are given in Table 4.45.

Table 4.45

Sl. No.	Particulars	1993-94 Production MT	1994-95 Production MT
	Copra crushed	1864.19	1971.99
	Coconut oil	938.32	1259.94
	Coconut oil cake	462.43	624.50

4.103 In Karunagappally the capacity utilization is deplorably low. Quantity of Copra crushed in only 1971 tonnes against the installed capacity of 60000 tonnes per annum. It appears that the project is not operating on the lines it was originally conceived without any proper planning for procurement, processing and marketing of coconut.

4.104 The Kerala State Warehousing Corporation provides scientific storage facilities for agricultural commodities to farmers, cooperatives producers public sector undertakings etc. At present the corporation has 64 warehouses with a total storage capacity of 191,636 MTs. Out of this 1,49,181 MTs capacity is housed in corporation own godowns. Besides providing storage facilities corporation has diversified its activities in areas such as clearing, fumigation service transportation, procurement of agricultural produces, disinfection extension services, courier services and

manufacturing and marketing of motorised coir ratts.

4.105 The grading of Agricultural Commodities under 'Agmark' Scheme was continued through the 'State Agmark' grading labs functioning in the State. The grading of agricultural commodities done through these labs and private laboratories are furnished in Table 4.46.

Table 4.46

Grading of Agricultural Commodities under 'Agmark' Scheme

		(Qty in Qtls)				
Sl. No.	Year	Coconut oil	Gingelly oil	Honey	Ground spices	Chec
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	1989-90	27294	842	1964	511	--
2.	1990-91	15239	693	1467	1069	--
3.	1991-92	13259	4304	868	5117	164
4.	1992-93	21005	851	777	3906	344
5.	1993-94	6062	1591	531	1423	153
6.	1994-95	1629	1383	1280	1629	57

Source :- Directorate of Agriculture, Kerala

Kerala Agricultural Market Project

4.106 The Kerala Agricultural Markets project under implementation in Kerala with EEC assistance from 1990 onwards is scheduled for completion in March 1997. The project is meant for establishing 6 markets viz., 3 major markets one each in Thiruvananthapuram, Cochin and Kozhikode and 3 major feeder markets namely Nedumangad, Moovattupuzha and Sultanbathery. Construction works have been started in all the market yards after completing the land acquisition and land development. The project is expected to be completed within the scheduled time. Agricultural Credit

4.107 The organised sector which supports the largest share of Agricultural Credit needs in Kerala comprises of Cooperatives and Commercial banks. The Credit operation of the sector includes those finance from the funds raised by the banks as well as those refinanced by NABARD.

4.108 NABARD provides financial support for both Co-operatives and Commercial Banks. The refinance Co-operatives and Commercial banks. The refinances assistance through NABARD has steadily increased from Rs.58.06 crores in 1987-88 to Rs.127.55 crores in 1994-95

in Kerala. The refinance to Kerala during 1994-95 works out to 4.2 percent of the total disbursement by NBARD. In the country the increase in refinance during 1994-95 was only 0.64 percent which was much lower than the earlier growth rate. Kerala State Cooperative Agricultural and Rural Development Bank Ltd. has absorbed the largest share of refinance (41.11%) followed by Commercial banks (34.46%), Kerala State Co-operative Bank Ltd. (14.85%) and Regional Rural Banks (9.58%). During 1994-95 the share of KSCARD Bank decreased by 2% where as the Commercial banks have increased their share by 2.56%. Purpose-wise disbursement during the year 1992-93, 1993-94 and 1994-95 are given in appendices 4.24. The disbursement to farm front accounts for 60% of the total for 1994-95 which compares favourably with the level in increase in 1993-94. The proportion of credit support to farm sector recorded during 93-94 & 94-5 indicates a reversal of the unhealthy trend of a shift in the credit sector from farm to non farm sector which was emerging in early nineties. A further analysis of refinance disbursement shows that the major share was absorbed by Plantation and Horticulture (18.20%) followed by Minor Irrigation (12.60%). However their percentage share was lower than those in 1993-94 ie. 18.57% and 16.02% respectively.

The decline in the flow of investment finance to Plantation and horticulture sector which is starving for capital investment is a matter of serious concern.

4.108 During the year 1993-94, Commercial Banks performed very well in the Dispensation of Rural Credit. The Loan disbursement to the priority sector during 1994-95 was to the tune of 2097.24 crores against Rs. 1542.40 crores during 1993-94. In terms of percentage growth it works out to 35.97% which is commendable. the Agriculture and allied sectors accounted for the major share of Rs. 748.71 crores (45.25%) followed by Tertiary Sector Rs. 635.35 crores (30.29%) and SSI sector Rs. 513.18 crores (24.47%). The share of SSI increased from 18.78% to 24.47%. The share of Agriculture sector decreased from 49.08% to 45.24%. The share of tertiary sector decreased from 32.14% to 30.29%. The relevant data from 1990-91 is given in Table 4.47.

Table 4.47
Loan Disbursement under priority
sector by Commercial Banks
(Rs. lakhs)

Sl. No.	Year	Priority Sectors			Total
		Agriculture	SSI	Tertiary	
(1)	(2)	(3)	(4)	(5)	(6)
1.	1990-91	488.87	148.09	346.45	983.41
2.	1991-92	622.99	171.76	344.28	1139.03
3.	1992-93	614.26	225.05	363.16	1202.44
4.	1993-94	757.06	289.70	495.64	1542.40
5.	1994-95	948.71	513.18	635.35	2097.24

Source : State Level Bankers Committee Kerala.

4.109 The Kerala State Cooperative bank Ltd. with 14 District Cooperative Banks and 1583 Primary Agricultural Credit Societies cater to the short term and medium term cooperative credit requirement. being the apex bank, The Kerala State Co-operative Bank Ltd. coordinates the working of District Cooperative Banks and the primaries in their lending programmes as also in the mobilisation of deposits. A comparative statement of the working of the bank for the last three years is given in Table 4.48.

Table 4.48
Statement showing Working of
Kerala State Cooperative Bank Ltd.
for the years 1992-93, 1993-94 & 1994-95.
(Rs. in lakhs)

Sl. No.	Particulars	1992-93	1993-94	1994-95
1.	Share Capital	1256.49	1277.06	1500.00
2.	Reserves	1983.25	2100.20	2207.20
3.	Deposits	35667.56	50251.60	50159.20
4.	Borrowings	15421.95	17735.37	21607.18
5.	Working Capital	53934.74	70980.00	75006.46
6.	Loans & Advances	34327.78	41132.89	49661.15
7.	Investments	9354.00	15107.12	18847.36
8.	Net Profit	79.87	84.02	194.23

Source : The Kerala State Cooperative Bank Ltd.

4.110 The loan outstanding during 1994-95 was to the tune of Rs. 496.61 crores against Rs. 411.33 crores in 1993-94, which represent a growth of 20.73%. During 1994-95 an amount of Rs. 3.34 crores was disbursed to District Co-

operative Banks for IRDP. The Disbursement of loan during 1994-95 was Rs.312.36 crores against Rs.521.61 crores during 1993-94 showing a decrease of 40.11%.

The disbursement for agricultural purposes for 1994-95 was Rs.115.20 crores which is 36.88% of the total disbursement compared to Rs.22.64% during 1993-94. The purpose wise disbursement of Loans during 1992-93, 1993-94 and 1994-95 are given in Table 4.49.

4.112 The short fall during 1994-95 was due to the lower disbursement in categories like

Procurement/Marketing/ Distribution	- Rs.167.12 crores
Other Industries	- Rs.55.53 crores
Consumption purposes	- Rs.19.02 crores
Other purposes and Agriculture	- Rs.15.80 crores - Rs.2.91 crores

4.113 The huge short fall in disbursement under the category of marketing was almost entirely due to the discontinuance of the monopoly procurement of Cashew through the Co-operatives by the Governments and the consequent termination of the line of credit extended for the purpose.

Table 4.49
Purpose wise Disbursement of Loans of the
Kerala State Co-operative Bank Ltd.
during 1992-93, 1993-94 and 1994-95.

Sl No.	Purpose	Loan Disbursement		
		1992-93	1993-94	1994-95
		(Rs. in crores)		
1.	Agriculture (Production & Investment)	81.94	118.11	115.20
2.	Procurement/Marketing distribution	297.29	211.01	43.89
3.	Cottage & Small Scale Industries	5.32	4.00	60.54
4.	Other Industries	0.71	61.29	5.76
5.	Consumer activities	11.04	9.52	3.86
6.	Consumption purposes	10.02	33.21	14.19
7.	Housing	14.13	15.64	15.89
8.	Other purposes	74.99	68.83	53.03
Total		495.48	521.61	312.36

Source : Kerala State Co-operative Bank Ltd.

4.114 The primary agricultural credit societies are the institutions at grass root level for dispensation of short term credit to agriculturists. As on 30.6.1994, there are 1583 primary Agricultural credit societies with a membership of 103.85 lakhs and a resources base of (share capital, Deposits and Working Capital) Rs.5270.14 crores. Data on the performance of these societies are

available only for the period ending 1993-94. The performance of the credit societies as on 1992-93 with reference to selected indicators was encouraging. The average membership per society was 6560 with an average share capital base of Rs.8.51 lakhs with an average working capital of Rs.205 lakhs. The average deposit per society increased from 95.35 lakhs to Rs.199.47 lakhs in 1993-94.

The average loan per member has increased from Rs.1485/- to Rs.1986. Percentage of borrowing members increased from 40.61 to 43. The loan disbursed through Primary Agricultural Credit societies during 1993-94 was to the tune of Rs.2010.96 crores registering a growth of 34.20% over the previous year. Out of the total disbursement of loans, short term credit comprises 78.24% (Rs.1573.37 crores) Medium term 18.45% (Rs.371.12 crores) Long term 3.31% (Rs.66.47 crores). The disbursement of short term, medium term and long term loans have recorded growth rates of 30.86%, 47.59%, 48.70% respectively. The credit for agricultural purpose increased from Rs.540.13 crores (36.05%) to Rs.718.05 crores (35.71%). Non farm sector lending is still dominating. The primary agricultural credit societies which are basically meant for serving the farm front are not justified in their present trend of moving away from Agriculture.

4.115 The remarkable progress showed by the co-operative is their functioning was due to the successful deposit mobilisation drive launched by co-operatives with the active support of the Government. The target for Deposit mobilisation for 1994-95 was Rs.200.00 crores and the achievement was Rs.541.39 crores. The data on working of primary societies reveals that during 1993-94 out of 1583 societies 764 is running at a profit 784 at loss and 35 without loss or profit. 17 societies are Dormant. 1553 societies have paid secretaries 1432 societies have own godowns. 1487 societies are viable. The selected indicators of the credit operations and performance of the primary agricultural credit societies are given in appendices 4.26 and 4.27.

Long Term Credit

4.116 The long term credit structure consists of the Kerala State Agricultural and Rural Development Bank Ltd. at apex level and 43 Primary Agricultural Development Banks at Taluk

level as members. The various activities covered by the banks lending include minor irrigation, farm mechanisation, land development including soil conservation, cultivation of horticultural plantation crops like coconut, rubber, cashew, coffee, pepper, cardamom etc. The Bank also advances non farm lending consisting of composit loan, small road transport operation scheme intergrated loan scheme with 100% assistance from NABARD. During 1994-95 the Bank had disbursed a sum of Rs.111.31 crores against Rs.84.90 crores during 1993-94. The advances include Rs.10.63 crores under ordinary lending Rs.45.60 crores under schematic lending Rs.30.77 crores under non farm lending and Rs.24.31 crores under rural housing. The increase is mainly in schematic and non farm lending. The details of ordinary and scheme loans

advanced and Loans advanced and debentures floated are given in appendices 4.28, 4.29 and 4.30.

4.117 National co-operative Development Corporation is an agency providing finance for the development of co-operative movement. The finance from the corporation is mainly for funding long term projects covering production, procurement, processing, storage and marketing of agricultural commodities as well as for the supply of consumer goods in rural areas. The flow of credit from NCDC for activities in Kerala during 1994-95 was Rs.38.09 crores compared to Rs.23.18 crores during 1993-94. The fund flow from NCDC and purpose wise release are shown in Appendices 4.31 and 4.32.

IRRIGATION AND POWER**Irrigation**

The Irrigation system in Kerala is serviced through major, medium and minor irrigation as well as ground water and command area programmes. The emphasis is: being gradually shifted from major irrigation system to minor irrigation programmes restricting the investment on the major irrigation segment for completion of the ongoing projects. The cumulative investment so far made in the irrigation sector amounts to Rs 1627.82 crores and the total irrigation potential created is 3.92 lakh hectare (net) and 6.40 lakh hectare (gross). Out of the total investment made, the major share (Rs. 1143.53 crores) ie. 70% is for major and medium irrigation projects followed by minor irrigation and command area programmes. Due to the escalation in costs and delayed completion of projects the cost of the projects have gone up considerably without commensurate increase in irrigation potential. During the 8th plan period, State Government have accepted it as a policy that only after completing the ongoing major projects, proposals for new projects would be considered. A time bound action programme was also drawn up for completion of all the projects taken up during 3rd and 4th plan with in the 8th plan period.

Progress of Major and Medium Projects

The Eighth five Year Plan envisages completion of 10 major irrigation projects. Against this the State could complete 4 projects namely Kuttiyaidi, Pamba, Periyar valley and Chitturpuzha. Phase-I of the Kallada project is also nearing completion. Kanhirapuzha, Pazhassi, Muvattupuzha, Chimmoni-Mupli, Karapuzha and Kanakkankadavu projects are also progressing. All these projects will be completed by the end of the 8th plan. NABARD has constitute a Rural Infrastructural Development Fund during 1995-96 for providing financial assistance to State Governments for completion of medium and minor irrigation projects which are in advanced stages of completion. NABARD has approved funding of three projects namely Chimmoni - Mupli, Karapuzha and Kanakkankadavu in the medium irrigation category.

Due to the delay in commissioning of the projects the physical achievement remains far

below the target. Against the target of 148,000 Ha. (gross) to be additionally brought under irrigation during the 8th plan period, the actual achievement during the first 3 years was only 26767 Ha. The cumulative area benefited by the projects as on 3/95 comes to 2.10 lakh Ha. (net) 4.24 lakh Ha. (gross). During 1994-95 additional irrigation potential was created only in the 3 major projects namely Kallada 3685 Ha. (net), Chitturpuzha 1127 Ha. (net) and Periyar valley 472 Ha. (net) and 1455 Ha. (gross). Project -wise details of ongoing and completed projects are shown in Table 5.1 and Appendix 5.1

Minor Irrigation

The State could not pay adequate attention for the development of minor irrigation and ground water development due to financial constraints. The inability to complete the major irrigation projects continuing from Plan to Plan, and the consequent pressure on the scarce resources for continuing those works had infact restricted giving new starts for the expansion of minor irrigation coverage in the past. With a view to enable taking up maximum number of projects with the available resources a new philosophy of implementing minor irrigation schemes with people's participation introduced during the 8th plan period. Janakceya Jalasechana Padhathy and Jaladhara Padhathy are the major programmes which were introduced with this objective. The Dutch assisted community irrigation scheme and the EEC assisted minor irrigation programme now under implementation were also conceived more or less on these lines. The community irrigation project started in January 1994 focussed on ground water development, land and water management development, extension and training. The Project aims at drilling of 210 bore wells out of which 152 are intended for irrigation. So far, 26 community water groups were organised, seven bore wells were drilled and irrigation distribution works completed in two communities. The EEC assisted minor irrigation scheme started in 1992-93 aims at establishing or rejuvenating all types of minor surface irrigation schemes such as vented cross bars, small lift irrigation tanks, weirs and sub surface dams for providing irrigation support to 20,000 Ha. As per the approved work plan, 312 tank schemes, 148 lift irrigation schemes

Table - 5.1
Project - Wise details of the Ongoing Projects

(Rs. Lakhs)

Sl. No.	Name of Project	Year of Starting	Original Estimate	Revised estimate	Year of revision	Cost Escalation %	Expenditure upto 3/95	Expected Area to be irrigated Hectare		Physical Achievement till 3/95 (Area Ha.)	
								Net	Gross	Net	Gross
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Kallada	1961	1328.00	45780.00	1990	3347	45185	61630	92806	26772	40158
2.	Chimmoni-Mupli	1975	633.00	3615.00	1990	471	4550	13000	262000	6500	13000
3.	Kanhirapuzha	1961	365.00	8200.00	1992	2146	6641	9713	21853	7266	16348
4.	Pazhassi	1962	442.00	10000.00	1992	2162	8391	11525	23050	6348	12696
5.	Muvattupuzha	1974	2086.00	38800.00	1992	1760	11802	18616	52200	—	—
6.	Vamanapuram	1981	1982.00	15230.00	1992	668	656	8803	18014	—	—
7.	Idamalayar	1981	1785.00	10700.00	1992	499	3717	14396	43190	—	—
8.	Kurlkutti-Karapara	1978	1036	10000.00	1992	865	306	11736	23472	—	—
9.	Chaliyar (Beyyorepuzha)	1981	1061.00	64500.00	1992	5979	360	73235	108035	—	—
10.	Kakkadavu	1979	1335.00	9885.00	1990	640	232	13986	41760	—	—
11.	Attappady	1975	476.00	8367	1992	1658	810	4500	8398	—	—
12.	Karapuzha	1975	760.00	12500.00	1992	1545	4577	4650	9300	—	—
13.	Meenachil	1980	3500.00	8950.00	1992	156	403	9960	14510	—	—
14.	Banasurasagar	1979	800.00	2826.00	1992	253	175	2800	4800	—	—
15.	Chamaravattom	1985	870.00	1327.00	1986	52	291	—	—	—	—
16.	Kanakkakadavu		235.00	855.00	1995	264	84	—	—	—	—

and 115 cross bars are to be established to benefit 17500 Ha of land, the emphasis is being on irrigating paddy. The project is in the initial stage of implementation.

The area brought under minor irrigation including ground water development during 1994-95 was 15508 Ha (net) and 20500 Ha (gross) and an amount of Rs 3104.51 lakhs has been expended to bring so much area under irrigation. The schemes completed under the regular minor irrigation programme during 1994-95 includes 60 class I works, benefiting an area of 4663 Ha (net) and 6995 Ha (gross) 93 class-II works benefiting 1645 Ha (net), 17 lift irrigation works providing irrigation support to 1258 Ha (net). Minor irrigation support was provided under the special component plan also by taking up 26 works irrigating an area of 436 Ha (net) and 4 works benefiting an area of 171 Ha under tribal sub plan. Repairs were carried out in 130 minor irrigation structures which has helped bringing an additional area of 3281 Ha (net) under irrigation. The cumulative area brought under irrigation as on 3/95 as per the estimates of the Minor Irrigation Department is 1.80 Lakh Ha (net) and 2.33 lakh Ha (gross). The physical and

financial achievement of the minor irrigation programmes are given in Appendix 5.2.

In a situation of acute water scarcity experienced in many parts of the State particularly during summer season ground water development can play an important role in water supply both for irrigation and drinking water purposes. In spite of the fact that there exists plenty of untapped potential for ground water utilisation, the State could not make much progress in this important segment of irrigation for want of adequate technical manpower and facilities for ground water tapping and utilization at the field level. The organisation is still in a nascent stage. The activities of the ground water Department include ground water exploitation, resource evaluation and management, ground water development for purposes like irrigation, domestic and industrial requirements. During 1994-95, investigations were conducted in 2396 applications, cleared sites for the construction of 679 borewells, 349 filterpoint wells and 9 tubewells, technical clearance for 5276 pumpsets, analysed 540 water samples, conducted hydrogeological survey in 1735 Km² and constructed 410 wells (144 Bore wells 255 filterpoint wells and 11 tube wells)

creating an additional potential of 1435 Ha. Under Janakeeya Jalasechan Padhathy 28 irrigation units (31 wells) were constructed benefiting an area of 212 Ha and cleared sites for the construction of 37 irrigation units. Failed well compensation was given to 34 beneficiary farmers and drinking water facilities were provided to 12000 families by constructing 278 bore wells, 2 filter point wells and 1 Tube well during the year under report. Under special component plan 65 ground water structures (55 borewells and 10 filter point wells) were built to benefit 1200 families and under tribal sub plan 15 bore wells were constructed benefiting 300 families.

Flood Control and Anti-Sea Erosion

The flood control activities undertaken are construction of embankments, retaining walls, groynes, etc. to protect the banks of the rivers from the ravages of floods. During 1994-95, embankments were constructed covering a length of 1.136 Km. and an area of 2400 Ha. were protected. An amount of Rs. 655.27 lakhs has been expended for the purpose. Constructing New sea walls and reforming the old sea walls are the activities taken up under Anti-Sea erosion. The total coastal line identified as vulnerable for sea erosion is 448.226 km. Till 3/95, 342.6 Kms. of new sea-wall were constructed and reformation works of old sea-wall were done to the tune of 65.02 Kms. The cumulative expenditure upto 3/95 comes to Rs. 153.17 crores. The physical and financial achievement of the flood control and anti-sea erosion programmes are given in Table 5.2

Table 5.2.
Physical and Financial Achievement of Flood Control and Anti-sea Erosion Programme

Sl. No.	Item	Achievement during 1994-95		Cumulative till the end of 3/95	
		Expenditure (Rs. lakhs)	Area benefited (Ha.)	Expenditure (Rs. lakhs)	Area benefited (Ha.)
1	2	3	4	5	6
1	Flood control Programmes	655.27	2400.00	3616.17	43892
2	Anti-Sea Erosion	1021.93	New Sea Wall-6.20 Km. Reformation of old damaged sea-wall 6.82 Kms	15316.83	New Sea-wall 342.6 Km Reformation of old sea wall-65.02 Km

Command Area Development

Command Area Development implemented as a Centrally sponsored programme, in the

commands of the 14 completed projects namely Malampuzha, Walayar, Pothundy, Gayathri, Mangalam, Peechi, Vazhani, Checrakuzhy, Chalakkudy, Neyyar, Pamba, Periyarvalley, Chitturpuzha and Kuttiyadi aims at optimal utilisation of the irrigation potential already created.

The programmes include construction of field channels, field drains, land development programmes, introduction of warbandhi system, demonstration and adaptive trails for better water management practices and scientific and improved methods of water use etc.

During 1994-95, field channels were constructed to benefit 16907 hectares, introduction of warbandhi system in 11117 hectares, adaptive trials in 2049 Ha. demonstration in 7620 hectares. The physical achievement under CAD Programmes are given in Appendix 5.3 Data on physical achievement shows that full capacity utilization of the irrigation potential could not be achieved even in the case of 10 projects where the programme has been under implementation for the last ten years. The programme has to be activated with vigour ensuring people's participation to enable the farmers realise the benefits of the irrigation potential created.

Energy Development

Kerala Power System, the fulcrum on which rests the pace of growth and development at present is quite inadequate to meet the fast growing requirements of the State. In the absence of any significant capacity addition after 1977 and the failure to complete the ongoing projects, have led to a crisis situation where the demand supply gap is widening to critical proportions. The existing Demand for power is 7220 Mu whereas the supply is just 5820 MU. The projected demand and availability of power in the State for the period upto 2001 A.D. is depicted in Fig. 5.1.

The growth of Kerala Power System at a glance during 1993-94 and 1994-95 are given in appendix 5.7. The only addition to the installed capacity during the year 1994-95 was 7.5 MW, by commissioning the Kallada Small H.E. Project, which was started in 1982. Maniyar H.E. Project, the first scheme under private participation, was successfully commissioned in June 1995. This scheme was implemented by M/s. Carborandum Universal Ltd. as a captive power generating Plant. Including this the total energy generated during

1994-95 was 5737 MU. The project wise details of units generated during 1994-95 is given in appendix 5.8. The total energy sold in the State during 1994-95 was 7027.63 MU, which is 742.63 MU more than that of the previous year. The total revenue realised by K.S.E.B. by the sale of power during 1994-95 works out Rs. 633.15 crores as against Rs.530.81 crores in 1993-94.

The quantum of energy purchased from Central sector/ joint venture power stations with unit cost during 1993-94 and '94-95 are given below:

Energy loss as a percentage of energy available for sale has come down from 20.17% in '93-94 to 20.09% in 94-95. This marginal decrease was achieved by implementing various measures for reducing the T&D losses by K.S.E.B. The installed capacity, generation and system loss from 70-71 to 94-95 is depicted in Fig. 5.3.

The particulars regarding the location of the projects, original and latest revised estimate of costs and expenditures till '94-95 and expected year of commissioning of ongoing projects etc. are given

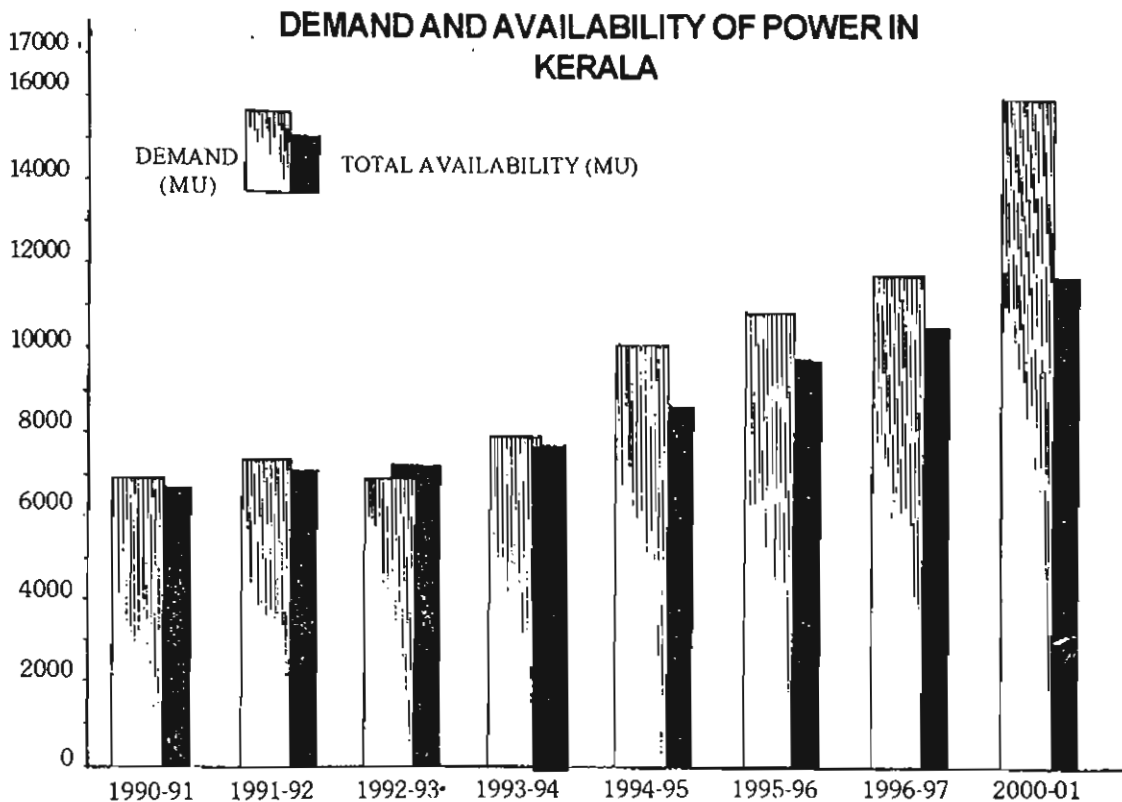


Fig. 5.1

Year	Purchase (MU)	Unit cost (Ps/Kwh)
1993-94	2035.97	90.57
1994-95	2247.19	96.84

The per capita consumption of electricity in the State during the year '94-95 was 231 kwh. This was the lowest among the southern states and far below the national average. A graphic representation of number of consumers and percapita consumption of power in the State from '70-71 to '94-95 is given in Fig. 5.2.

in appendix 5.9. Time over run and consequent cost escalation are the common problems in almost all the projects. Inordinate delay in the commissioning of the projects due to various reasons such as labour troubles, contract failures, changes in the original design, defective planning and implementation of schemes, local pressures and rehabilitation of evictees and forest act environmental consideration etc result in the benefits being delayed. The consequent escalation of costs make many of the schemes economically unviable.

CONSUMERS AND PERCAPITA CONSUMPTION

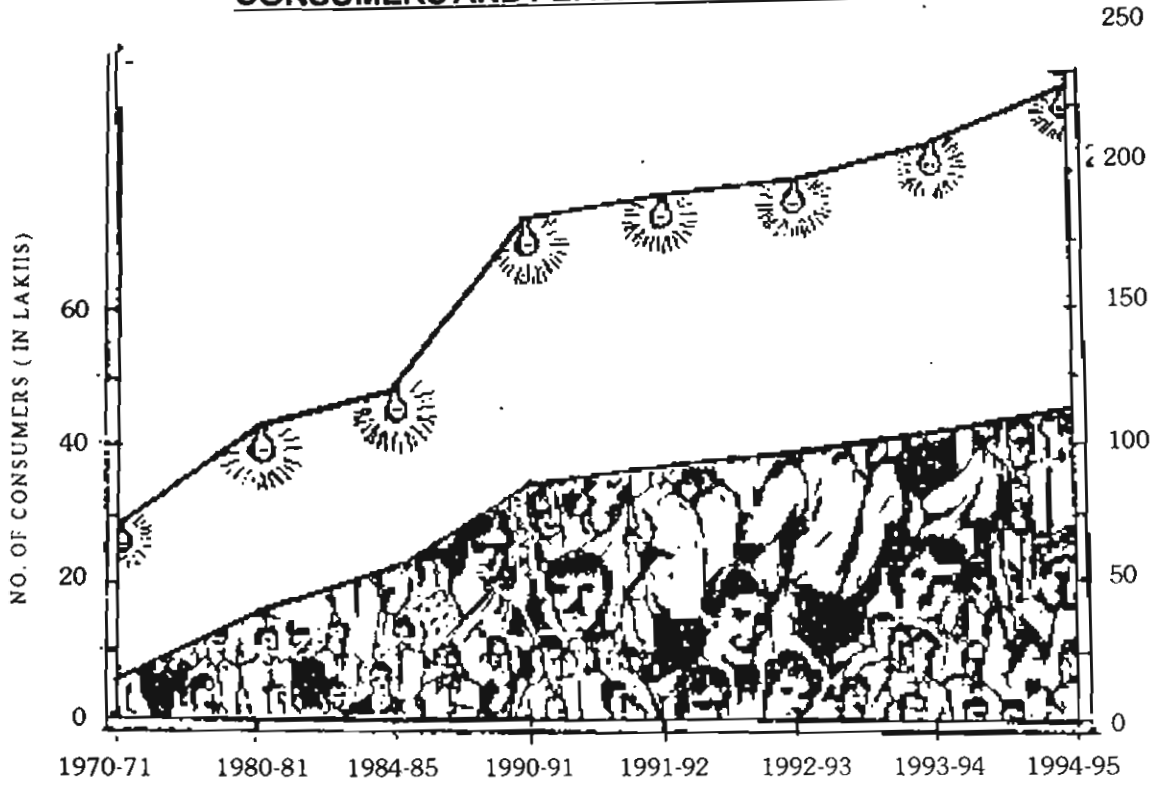


Fig. 5.2

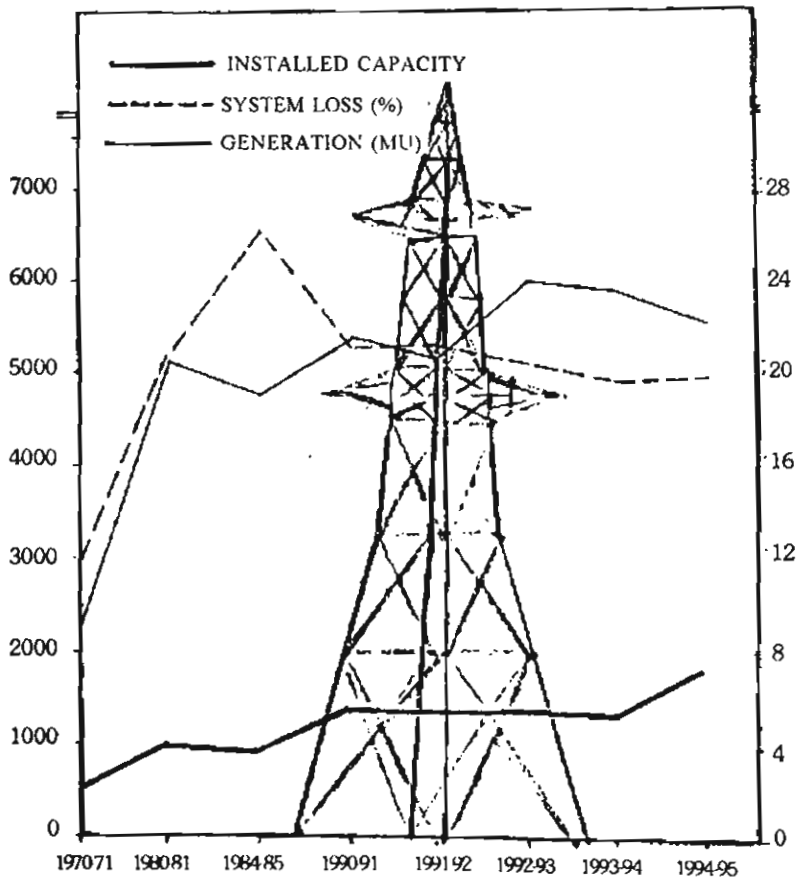


Fig. 5.3

Remarkable progress has been achieved in the transmission and distribution sector during the year under review. 3 Kms. of 220 KV lines; 54.12 Kms. of 110 KV lines; 23 Kms. of 66 KV lines, 1054 Kms. of 11 KV lines and 5453 Kms. of L/T lines have been completed, during the year 94-95. 1337 distribution transformers of capacity 5453 KVA have been installed during the year under review. One 220 KV substation and five 110 KV substations were commissioned during 94-95. Total number of consumers as on 94-95 was 44.17 lakhs as against 41.17 lakhs during the previous year, registering an increase of 2.63 lakhs during the period.

The pattern of energy consumption in the State shows that the industrial sector consumes the largest share, (36.97%), followed by domestic sector (32.74%) during 1994-95. The consumption pattern of power is depicted in Fig. 5.4. and Appendix 5.11.

The aggregate investment for power development up to the end of 1994-95 comes to Rs. 2296 crores. The outlay earmarked during 1995-96 is 45900 lakhs. The outlay and expenditure on power development during the period from 1951-52 to 1994-95 are given in Appendix 5.10.

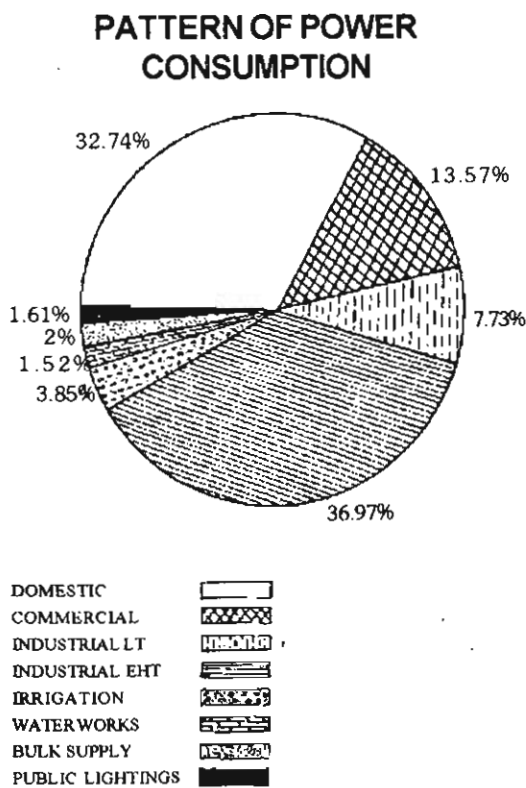


Fig. 5.4

No load shedding or power cut was resorted to in 1994-95. However low voltage was a major concern. But inadequate rainfall during 1995-96 has considerably reduced the water levels in the reservoirs resulting in significant fall in power generation forcing the Government to resort to load shedding and power cut in the last quarter of the financial year 1995-96. Government has to accord very high priority to substantially step up power generation within the State including short term measures to improve the situation. During the 8th Five Year relatively high priority has been given for energy sector. Obviously that is not enough. In spite of the fact that larger share of the outlay has been earmarked for power, the pace of execution of the ongoing projects has been slack and uncertainty of the completion of the projects still continues. The policy of concentrating on hydel power generation has to change drastically. Even though some beginning has been made to generate thermal energy, the progress is too slow. An appropriate hydel thermal mix has to be evolved with strict vigil on completion of the projects. The much talked about private sector participation in power generation has not yet picked up the way it ought to have been. Three years ago Kerala State Electricity Board has signed MOU'S with private sector group for implementation of 8 mini/small generating schemes. Most of the MOU'S signed remain as non-starters. A conscious effort is needed to set the wheel rolling at a much faster rate to set up and commission power projects, that too of short gestation periods. If the state has to achieve the required economic growth for taking it to the 21st century with self respect, as the magnitude of the problem is too large that this cannot be solved with Governments' own funding. Large scale private participation for power generation is a must for generation of power.

Escalation in prices of all commodities and services including plant and equipment and also construction materials resulting in increased operation and maintenance costs of supply system, increased rate of interest payable on loans, and subsidised tariff given to certain categories of consumers due to social obligations have all led to a situation in which the present tariff rate has become inadequate for the Board to make the minimum surplus of 3%. The increased cost of imported power from Central Pool forced the Board to revise the tariff rate to all categories of consumers with effect from 1.10. '94 and to certain

categories of consumers with effect from 1.10.1995. The tariff rate applicable to Extra High Tension consumers has been made two part tariff, one rate with effect from 1.10.'94 to 31.03.'95 and another rate from 1.4.'95 to 31.3.96. The details on the average rate of sale of power to various categories of consumers during 1993-94 and 1994-95 are given in Appendix 5.12

Financial Position of Kerala State Electricity Board

The total revenue from the sale of power by K.S.E.B. during 1994-95 was Rs.63334.51 lakhs which was higher Rs. 10226 lakhs during the previous years. Total income of KSEB including revenue from subsidies, grants and other income works out to Rs. 65260.68 lakhs in 1994-95 as against Rs. 53773.62 lakhs during the previous year, registering an increase of 11847 lakhs. The total revenue subsidy/grant receivable by KSEB during 1993-94 and 1994-95 was Rs. 1788 lakhs and Rs.2567 lakhs respectively. During 1994-95 the overall expenditure registered an increase of 200% over the last year's position. The major reason for this was that the exemption for payment of Electricity Duty under Section 3 (1) of KED Act, exempted for 5 Years from 1989-90, in order to compensate the loss sustained to KSEB due to the non receipt of tariff from certain category of consumers and to comply with the World Bank norms, was withdrawn in 1994-95 resulting in larger outgo during that year. From

the provisional balance sheet it is seen that the net asset of KSEB as on 31.3.1995 is Rs.2323.91 crores as against to Rs. 1944.71 crores as on 31.3.1994 and the carry forward loss of KSEB as on 31-3-95 was Rs.5787 lakhs as against Rs.7975 lakhs as on 31.3.94.. Surplus during 1994-95 works out Rs. 2187 lakhs as against Rs. 2411 lakhs in 1993-94. Surplus as a percentage of the value of the fixed asset of the Board at the beginning of the year 1994-95 works out to 3.04% as against the minimum of 3% specified. The operating results from 1970.71 to 1994-95 is given in Fig.5.5.

The outstanding dues of K.S.E.B. to Central undertakings as on 31.3.1995 is given below.

Organisation	Dues upto 31.3.1995 (Rs. in Crores)
National Thermal Power Corporation	2.42
Power Grid Corporation of India Ltd.	3.39
Nuclear Power Corporation	4.57
Neyveli Lignite Corporation	74.90
TNEB Wheeling Charges	1.07
Total	86.35

Non-Conventional Sources of Energy

The Agency for Non-Conventional Energy and Rural Technology (ANERT) acts as a nodal agency for the non-Conventional source of energy in the State. It is engaged in spreading the message of renewable sources of energy and energy

TOTAL INCOME AND EXPENDITURE OF K.S.E.B

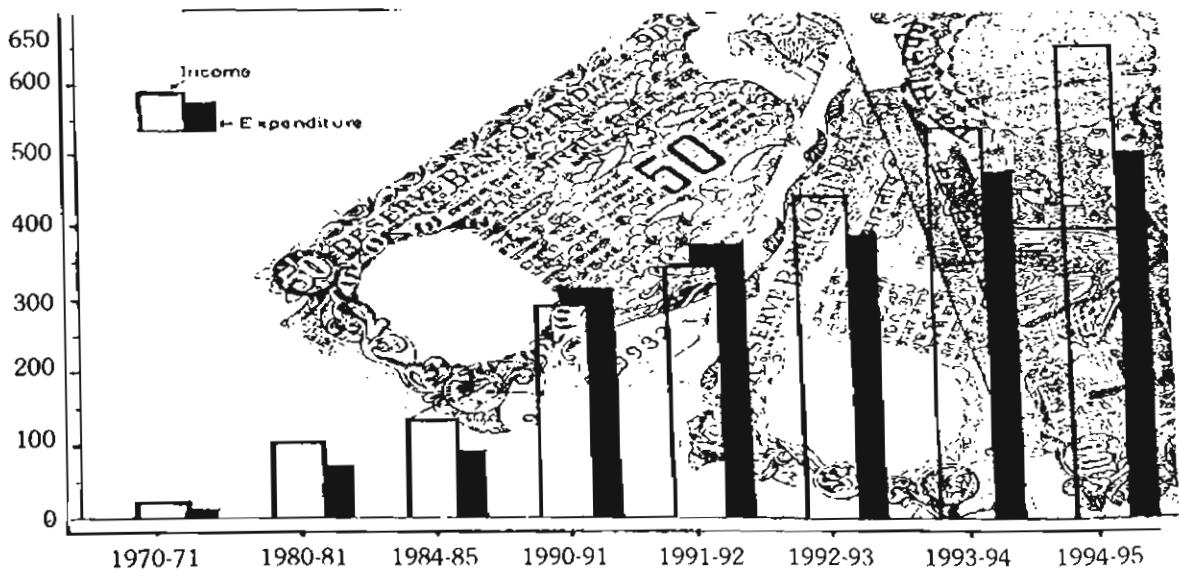


Fig. 5.5

conservation among various sections of the society. The Department performs the following activities in the State.

National Programme on Improved Chulahs
Solar Thermal Programme
Solar Photo Voltaic Programme
Integrated Rural Energy Programme
Bio-energy Programme
Wind Programme
Energy Conservation and Energy Audit

Total expenditure incurred for the development of non-conventional sources of energy including that for K.S.E.B. during '94-95 comes to Rs.827.64 lakhs. The cumulative expenditure till the end of March '95 comes to Rs. 1916.35 lakhs.

National Programme on Improved Chulahs

This is a partially Central Govt. assisted programme, aimed at providing improved chulahs through the selected 16 IREP Blocks in the State. Under this programme 34430 fixed domestic chulahs, 516 community chulahs and 38008 portable chulahs were distributed. The department distributed 27129 numbers in hill areas and 3670 numbers to the SC/ST beneficiaries in the State during the year under review. 21 training camps were conducted for the rural people for installing improved chulahs and 19 refresher courses were also conducted for the self-employed rural youth. In order to create awareness among the people, 18 awareness camps were conducted during 1994-95.

Solar Thermal Programme

Under this Programme, 7 units of Industrial Solar Water Heating Systems of total capacity 11000 litres/day with 192 m² of Solar Collector Area; 35 Domestic Solar Water Heating systems of 100 LPD capacity each are installed in '94-95. During the year under review, 45 Solar Cookers and 15 Solar Stills were distributed.

Solar Photo Voltaic Programme

The major items of activities under this programme are the distribution of SPV lanterns, Solar Televisions, SPV Water Pumps and SPV fencing systems. 185 SPV street lighting systems, 670 domestic lighting systems 5806 street lighting systems, 10 solar televisions, 49 SPV water pumps and two SPV fencing systems were installed in the year under review. A SPV operator Refrigerator was given in one of the hospitals in

Alappuzha for the preservation of vaccines is a notable achievement during 1994-95.

Integrated Rural Energy Programme

The major activities under IREP include propagation of improved chulahs and energy saving devices. These programmes were implemented through 16 IREP blocks in the State during the year under report

Under this programme, 24626 numbers of fixed chulahs, 18490 portable chulahs and 828 community chulahs were distributed to the beneficiaries in the rural areas. As a part of the new energy and energy saving device, ANERT distributed 6885 electronic chokes, 1490, CFL with electronic chokes, 9824 kerosene stoves, 12205 pressure cookers, 3872 solar lanterns, 409 solar domestic lights etc. during the year under report.

Bio-Energy Programme

Under this programme, the work for the construction of 60 m³ bio-gas plant using poultry droppings at Pattanakkad in Alappuzha District was taken up. Installation of Biomass Gasifier at HITECH Industries, Kollam was completed and Synthetic Chemicals, Ernakulam was also taken up during the year 1994-95. As a part of research and development, a study on the generation of Biogas from rubber processing effluent was taken up during the year under review.

Wind Programme

Under Wind Programme, 15 Wind Mill Water Pumping Units were commissioned in the State during 1994-95. A report on the Wind energy potential of Kanjicode and adjacent areas in Palakkad district was prepared in 1994-95. 8 site surveys for establishing Wind Monitoring Stations were done in the State. The project report was prepared to set up a Wind Farm-2.25 MW at Ramakalmedu during the year under review.

Energy Conservation and Energy Audit

The department has successfully conducted preliminary survey in energy auditing in the industrial concerns such as Meat products of India Ltd; Alwaye Fertiliser Industries Ltd; AMP Tools (India) Private Ltd; and Sun Tech Tools Pvt. Ltd. The efficiency tests on new models of wood stoves, kerosene stoves and fluorescent lights are also being arranged. A load study on transformers at MRF Ltd, Kottayam was completed during the year under review.

CHAPTER - 6

INDUSTRY

An Overview

The developmental strategy adopted by the State Government on the industrial front following the Industrial Policy Statement of 1991 helped to set a strong foundation for the systematic growth of the industrial sector in Kerala. The major policy being followed in attracting more private investment in the industrial sector in the State by providing infrastructure facilities and promotional support by the Government and its agencies helped to mobilize sizeable investment during the last few years. It is estimated that investment of the order of Rs. 3000 crores could be attracted into the medium and large industries sector since the announcement of the industrial policy in 1991. The investment in the small scale sector during this period was Rs. 886 crores. Projects involving foreign investment of Rs. 3300 crores could be attracted and those proposals were at different stages of processing. It is hoped that the industrial sector in the State would achieve new heights provided the present tempo in the implementation of schemes aimed at improving the basic facilities required for starting industries in Kerala is maintained.

6.2 The Index of Industrial Production in the State, as per the latest data available has increased by 22 per cent in 1993-94 from the level of 217 in 1992-93. The number of working factories rose to 15357 by the end of 1994 from 15074 in 1993. The number of workers also increased during this period from 3.91 lakhs to 4.00 lakhs. In the meanwhile, the number of industrial disputes declined to 6153 in 1994-95 from 7234 in 1992-93. The total number of workers affected by the industrial disputes has also come down to 58298 from 1,25,925 during this period. The Central sector investment in Kerala increased to Rs. 2566 crores by the end of March, 1994 keeping the percentage share of the State in the total Central investment in the Country more or less at the same level of 1.29 as in March, 1993.

6.3 With the financial support of Kerala State Industrial Development Corporation, 29 projects involving a total investment of Rs. 133 crores with an employment potential of 2943 could be commissioned in the medium and large industries sector during 1994-95. Another 45 projects costing Rs. 182 crores were taken up for implementation

during this period. Besides, the Corporation had taken investment decisions for 51 projects at a total cost of Rs. 255 crores and signed Memoranda of Understanding with private parties for developing and establishing 24 projects with a total investment of Rs. 166 crores in 1994-95. As at the end of March, 1995 as many as 67 projects with an aggregate cost of about Rs. 248 crores were under various stages of implementation while 15 projects with an investment of Rs. 246 crores were under finalisation. The Kerala Financial Corporation, the major State agency which extends financial assistance to the Small Scale sector sanctioned an amount of Rs. 109.35 crores and disbursed Rs 68.42 crores in 1994-95. The performance of KITCO and SISI which are engaged in the promotion of small scale industries in the State was also encouraging. The Kerala Industrial Infrastructure Development Corporation (KINFRA) besides vigorously pursuing the execution of the projects taken up by them for providing industrial infrastructure facilities in the State, formed two subsidiary companies viz. Kinfra Export Promotion Industrial Park and Kinfra International Apparel Park for implementing specific projects.

6.4 Among the 45 State Public Sector Undertakings under the Industries sector, the details of which are available, 22 units were working on profit during the year under review. They together earned a total profit of Rs. 81.41 crores during this period. The remaining 23 units incurred a total loss of Rs. 75.27 crores during 1994-95. The total accumulated loss of 48 units as at the end of March, 1995 stood at Rs. 678.23 crores as against their paid up share capital of Rs. 540.86 crores. In the meanwhile, the accumulated loss in respect of 34 units had exceeded their paid up capital by March, 1995.

6.5 Under the Small Scale Sector, a total number of 15,836 units, as against the target of 15,000, have been registered during 1994-95. The total number of small scale units in Kerala stood at 1,26,220 by the end of March, 1995. This achievement was made possible by the Intensive Industrialisation Programme launched by the State Government in February, 1993. The new units registered during 1994-95 provided employment

to 73,618 persons. The total investment in the small scale industrial units registered in Kerala as on 31.3.1995 is placed at Rs.1367.34 crores. They were employing a total number of 7.03 lakh persons during 1994-95.

6.6 In the traditional industries sector, industries like coir and hadloom have evinced much improvement in respect of production and implementation of developmental schemes aimed at the stabilisation of existing level of employment in respective areas. But the sericulture development programme taken up in the State could not achieve any progress during the year under report also. Under the mining sector, a major programme has been initiated with the assistance of BRGM of France for the exploitation of placer gold deposits in Nilambur in Malappuram district.

Index of Industrial Production

6.7 The index of Industrial production in Kerala, according to the latest figures available, increased by 22.08 percent in 1993-94 to 265.30 from the level of 217.31 in 1992-93 (Base year: 1980-81). The quarterly indices for all the quarters in 1993-94 showed an upward trend. A group wise analysis of production during the year 1993-94 shows that there were increases in production of Cotton Textiles, Textile products, Paper and Paper products, Basic Chemicals and Chemical products except products of Petroleum and Coal, Non-metallic Mineral products and Machinery and equipment products including Transport equipment and Parts. A close examination reveals that the increase has been only marginal in the case of production of Textile and Basic Chemicals and Chemical products except products of Petroleum and coal. The remaining major industry groups reported decline in production during the year 1993-94. The industry wise indices for the years 1992-93 and 1993-94 are furnished in Appendix 6.1 (Fig. 6.1(a)).

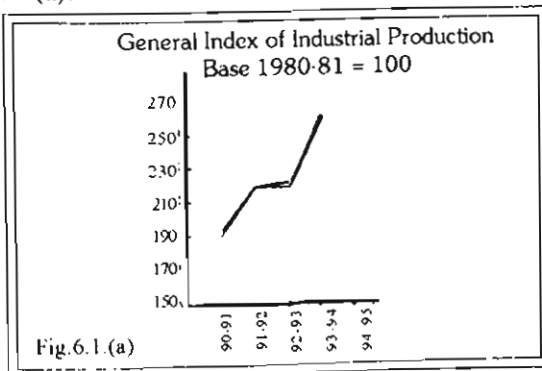


Fig.6.1.(a)

4/133/96-6

Working Factories and Employment

6.8 There were 15357 registered working factories in the State comprising 14853 private sector and 504 Public Sector units at the end of 1994 as against 15074 factories (14575 in private sector and 499 in Public Sector) in December 1993. (Fig. 6.2) The increase in the number of factories during 1994 was 283, which accounts for 1.88 per cent. While an increase of 1.91 per cent in the number of factories under private sector was noticed during the year, it was only one percent under public sector. But, over a period of seven years from 1988 to 1994, there was a growth of 70.88 percent in the number of factories under public sector, while it was only 26.38 percent under private sector.

6.9 The total number of workers employed in the registered working factories in the State has increased by 8546 to 3.995 lakhs in 1994 over the previous years level of 3.910 lakhs, showing a growth of 2.19 percent. (Fig. 6.3) While there was a growth of 3.05 percent in the number of employees in the private sector during the period under review, it was only 0.40 percent in the public sector. But it increased by 94.56 percent in the Public Sector during 1994 from the level of 1988. The increase in the number of employees under private sector during the period was only 26.30 percent. The details on the growth of working factories and average daily employment there-in during the period from 1988 to 1994 can be seen from Table 6.1.

TABLE 6.1
Growth of Working Factories and Employment in Kerala, 1988 to 1994.

Year	No. of Factories			Employment		
	Private	Public	Total	Private	Public	Total
1988	11733	295	12028	214723	65965	280688
1989	11841	265	12106	281066	64739	345805
1990	12035	413	12448	239562	115988	355550
1991	12800	455	13255	243211	125527	368738
1992(R)	14113	495	14608	248198	127538	375736
1993(P)	14575	499	15074	263175	127824	390999
1994(P)	14853	504	15357	271204	128341	399545

R- Revised P - Provisional

Source : Directorate of Economics and Statistics, Thiruvananthapuram.

6.10 The growth in the number of factories during the year 1994 has been noticed in all districts

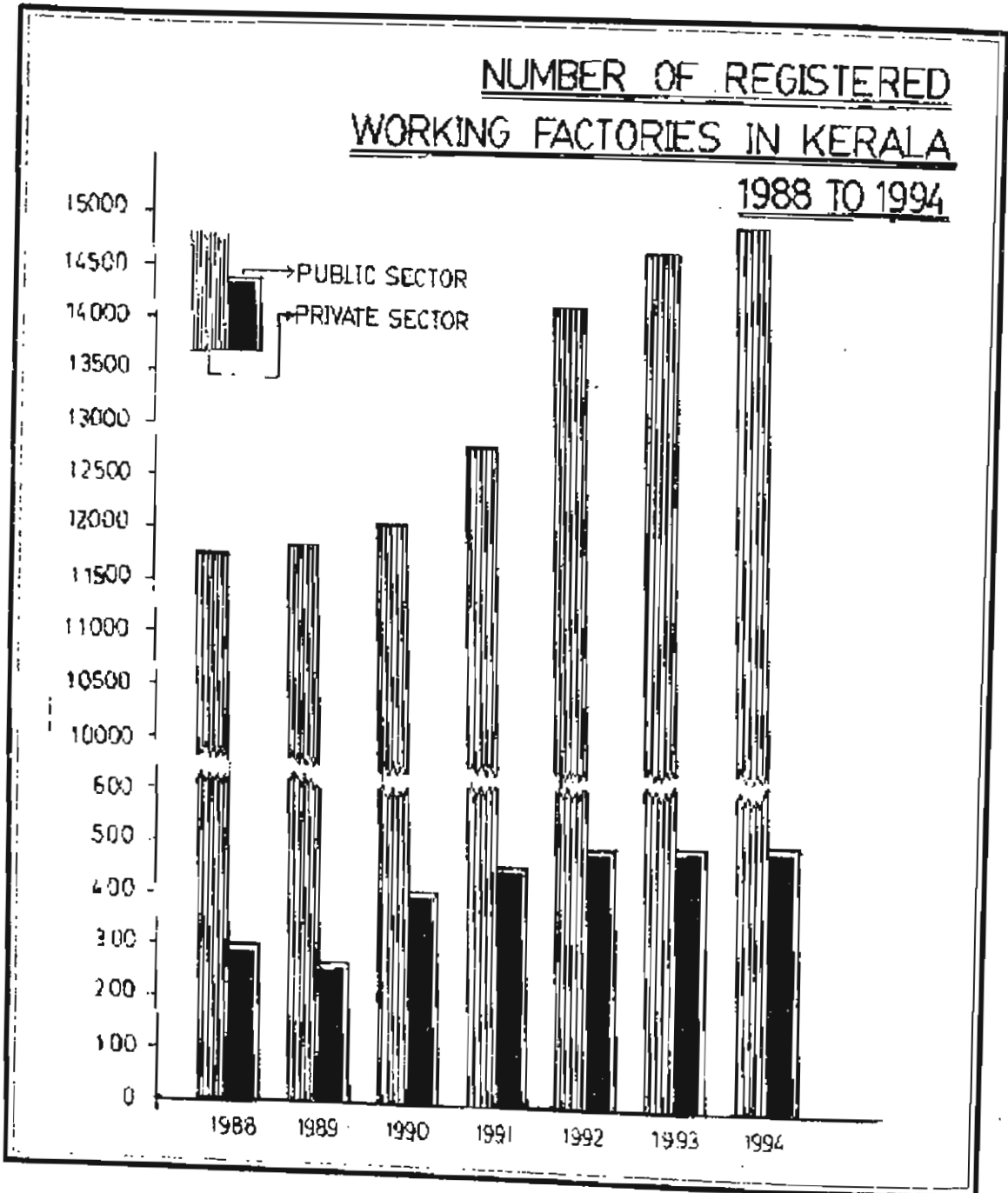


Fig. 6.2

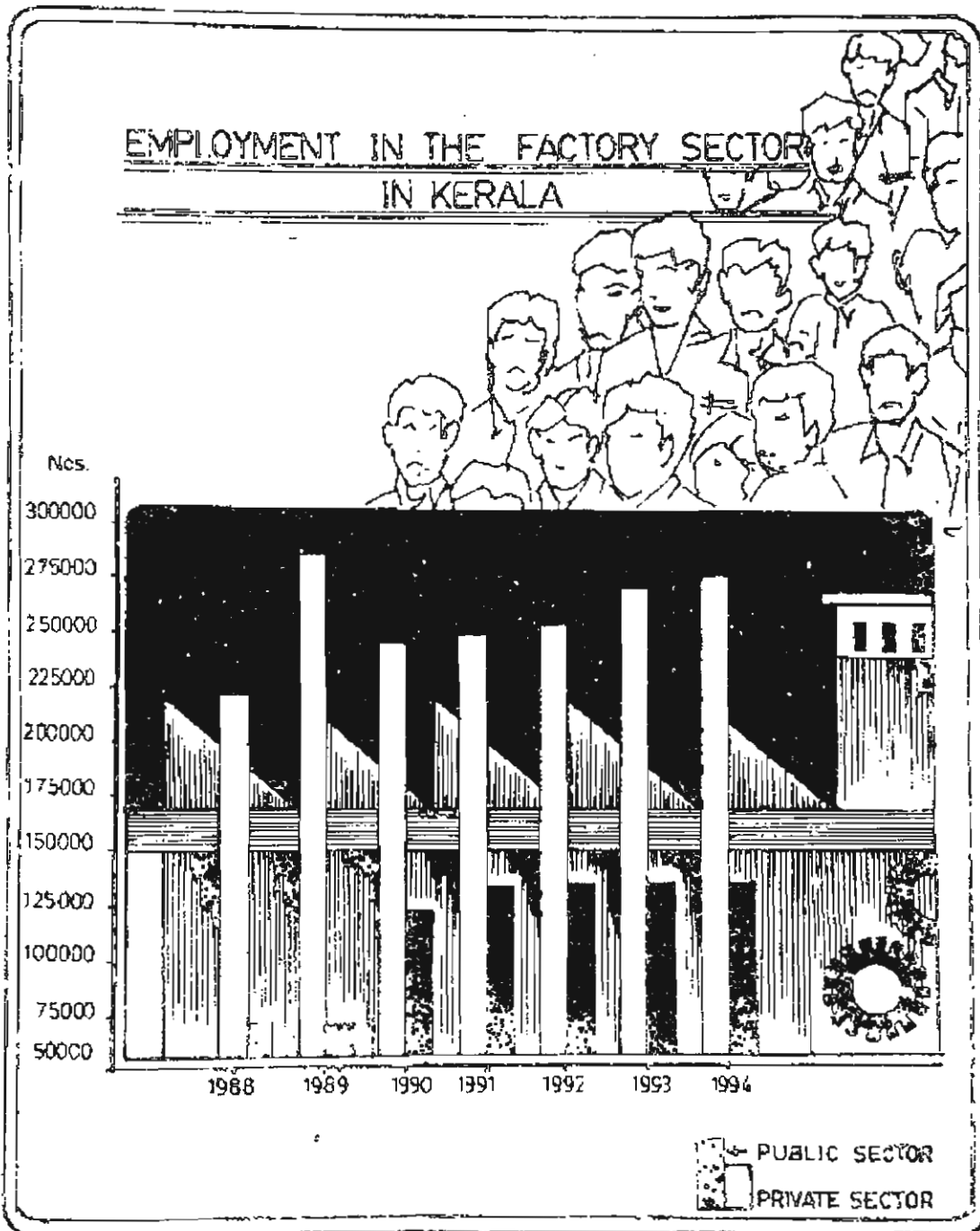


Fig. 6.3

except in Pathanamthitta, Idukki and Kozhikode districts. In the case of total number of factories, Ernakulam district continued to remain on top with 2404 factories during 1994 followed by Thrissur (1936 factories) and Kollam (1554 factories) districts. Kollam district witnessed the largest increase in the number of factories from 1502 in 1993 to 1554 in 1994. The number of workers in all districts except in Pathanamthitta, Alappuzha, Idukki and Kozhikode districts increased during this period. Maximum increase in the number of workers was noticed in Kollam district where it increased by 3990, from 149519 in December 1993 to 153509 at the end of 1994. The district wise distribution of registered working factories and workers employed there-in during 1993 and 1994 is furnished in Table 6.2.

TABLE 6.2

District-wise Distribution of Registered Working Factories and Employment as on 31st December (Provisional)

District	No. of factories		Employment(Nos)	
	1993	1994	1993	1994
Thiruvananthapuram	744	791	26881	27541
Kollam	1502	1554	149519	153509
Pathanamthitta	378	376	6080	5941
Alappuzha	935	985	18645	18459
Kottayam	1153	1154	14587	14613
Idukki	294	288	7627	7487
Ernakulam	2362	2404	58817	60873
Thrissur	1934	1936	31196	31508
Palakkad	1619	1666	18492	19074
Malappuram	827	844	8847	9088
Kozhikode	1607	1600	26981	26946
Wayanad	129	134	1945	2102
Kannur	1385	1415	19384	20359
Kasaragod	205	210	1998	2045
Total	15074	15357	390999	399545

Source : Directorate of Economics and Statistics, Thiruvananthapuram.

Industrial Disputes

6.11 Industrial disputes in the State have been occurring in 36 different types industries. The number of such disputes handled in the State decreased from 12617 in 1992-93 to 11477 in 1994-

95. While a total number of 7234 fresh disputes arose in 1992-93, it declined to 6153 in 1994-95. The percentage of disputes settled has increased to 57.64 percent in 1994-95 from 53.06 percent in 1992-93. The number of disputes that led to strikes and lockouts increased from 72 in 1992-93 to 82 in 1994-95, while the number of workers affected by strikes and lockouts decreased from 125925 in 1992-93 to 58298 in 1994-95. The total number of mandays lost due to strikes and lockouts during 1994-95 was 31.32 lakhs as against 28.83 lakhs in 1992-93 and 26.24 lakhs in 1993-94. The details of industrial disputes arose, handled, settled etc. in the State during the period from 1992-93 to 1994-95 are furnished in Table 6.3.

TABLE 6.3

Industrial Disputes Arose, Handled, Settled etc. in Kerala from 1992-93 to 1994-95

Sl.No.	Particulars	1992-93	1993-94	1994-95
1.	No. of Disputes at the beginning of the year	5383	5922	5324
2.	No. of Disputes arose during the year	7234	6578	6153
3.	No. of Disputes handled during the year(1+2)	12617	12500	11477
4.	No. of Disputes settled during the year			
	(a) By Voluntary Negotiation between parties	2449	2229	2725
	(b) By conciliation	1578	2106	1611
	(c) By withdrawal	2084	2162	1787
	(d) Referred for Arbitration	—	—	—
	(e) Referred for Adjudication	584	679	493
	(f) Total number of Disputes Settled (a to e)	6695	7176	6616
5.	No. of Disputes pending at the end of the year (3-4)	5922	5324	4861
6.	No. of Disputes led to :			
	(a) Strick (Including cases pending previously)	43	47	50
	(b) Lock out (Including cases pending previously)	29	31	32
	(c) Total(a + b)	72	78	82
7.	No. of workers affected due to :			
	(a) Strike	115198	51209	41230
	(b) Lock out	10727	11885	17068
	(c) Total (a+ b)	125925	63094	58298
8.	Mandays lost due to :			
	(a) Strike	1785205	518396	1295380
	(b) Lock out	1098163	2105226	1836990
	(c) Total (a+b)	2883368	2623622	3132370

Source: Office of the Labour Commissioner, Thiruvananthapuram.

Industrial Promotion Agencies

Kerala State Industrial Development Corporation Limited (K.S.I.D.C.)

6.12 Kerala State Industrial Development Corporation Limited is one of the major industrial promotional institutions functioning in the State. During 1994-95, the Corporation earned a record profit of Rs. 11.63 crores as against Rs. 2.11 crores in the previous year. With the financial assistance by way of share capital contributions and loans from the Corporation, 29 projects involving a total investment of Rs. 133 crores having direct employment potential of 2943 could be completed and commissioned during 1994-95. Besides, 45 projects involving a total cost of Rs. 182 crores were taken up for implementation during the year. The total employment potential of these projects is estimated at 2252. The Corporation, during the year under review, took investment decision for 51 projects costing about Rs. 255 crores. The total direct employment potential of these projects is estimated at 4587. The Corporation signed Memoranda of Understanding with private parties for developing and establishing 24 projects involving a total investment of about Rs. 166 crores during the year under report. As at the end of March 1995, as many as 67 projects with an aggregate cost of about Rs. 248 crores were under various stages of implementation. In addition, 15 other projects with an estimated investment of Rs. 246 crores were under different stages of finalisation.

6.13 The total financial sanctions, comprising share capital contributions and loans, to various industrial units, by the Corporation during the year under review amounted to Rs. 51.89 crores and disbursement totalled at Rs. 32.79 crores. The Corporation's total recovery of principal and interest on loans from assisted units amounted to Rs. 24.78 crores as against Rs. 16.38 crores in the previous year, 1993-94.

6.14 In the joint sector, 37 projects have been completed and commissioned with the financial and promotional assistance of the Corporation. Out of these, the Corporation's share holding in as many as 11 companies have since been partly/fully disinvested as at the end of March, 1995. Thus, currently there are only 26 companies on the 'Joint Sector' roll of K.S.I.D.C. with its share holding amounting to 26 percent or more. The details on the physical and financial performance of the Corporation during the period

from 1992-93 to 1994-95 are furnished in Table 6.4

TABLE 6.4

Kerala State Industrial Development Corporation Limited - Physical and Financial Performance, 1992-93 to 1994 - 95

Sl. No.	Particulars	1992-93	1993-94	1994-95
1.	Projects completed:			
	(a) Number of Projects	33	42	29
	(b) Aggregate Cost (Rs. Crores)	84.80	132.47	133.00
	(c) Employment Potential (Nos.)	2907	3888	2943
2.	Projects taken up for implementation.			
	(a) Number of Projects	39	46	45
	(b) Aggregate Cost (Rs. Crores)	274.24	147.99	182.00
	(c) Employment Potential (Nos.)	5060	2870	2252
3.	Projects cleared by KSIDC Board			
	(a) Number of Projects	51	47	51
	(b) Aggregate cost (Rs. Crores)	489.41	253.62	255.00
	(c) Employment Potential (Nos.)	6985	2946	4587
4.	Memoranda of Understanding Signed with Private Parties			
	(a) Number of Projects	54	27	24
	(b) Estimated Aggregate Cost (Rs. Crores)	983	533	166
5.	Financial Assistance Sanctioned and Disbursed			
	(a) Gross Sanction (Rs. Crores)	55.49	48.73	51.89
	(b) Disbursement (Rs. Crores)	27.24	29.85	32.79
6.	Net Profit (Rs. crores)	1.22	2.11	11.63

Source: KSIDC Ltd., Thiruvananthapuram.

Kerala State Electronics Development Corporation Limited.

6.15 Kerala State Electronics Development Corporation Ltd., with the main activities of designing, manufacturing and marketing of various electronic products/systems, has been managing eight subsidiary and five associate units and operating nine manufacturing divisions of its own. The performance of the Corporation in terms of value of production and sales turnover during 1994-95 was not encouraging. The value of production of the Corporation during the year under review was Rs. 23.79 crores as against Rs. 63.47 crores in 1993-94. Sales turnover has declined sharply to Rs. 72.50 crores in 1994-95 from the previous year's level of Rs. 136.67 crores. Lack of new product line and paucity of funds for diversification have limited its operations during 1994-95. The provisional accounts of the Corporation shows an estimated loss of Rs. 31.65 crores as against a profit of Rs. 1.68 crores attained

in 1993-94. The accumulated loss of the Corporation has increased to Rs.98.26 crores by the end of March, 1995 from Rs.66.61 crores in March, 1994.

Kerala State Industrial Enterprises Limited

6.16 As a holding company, Kerala State Industrial Enterprises Ltd. has been engaged in the management of the affairs of its five subsidiary companies viz. Kerala Soaps and Oils Ltd., Kerala State Drugs and Pharmaceuticals Ltd., Kerala State Detergents and Chemicals Ltd., Kerala State Salicylates and Chemicals Ltd. and Travancore Plywood Industries Ltd., which are fully owned by Government of Kerala. Most of these subsidiary companies have been defunct for more than three years and they have been listed for disinvestment by the State Government. The other major activities carried out by the holding company during 1994-95 were trading and the operation of air cargo complexes at Thiruvananthapuram, Kochi and Kozhikode. The air cargo complex at Kozhikode became functional in August, 1995. The Company could provide warehousing facilities for international air cargo landing at Thiruvananthapuram, Kochi and Kozhikode air ports. The warehousing and other facilities at Thiruvananthapuram air port have been improved by constructing additional storage space. The total turnover was Rs.136.63 lakhs through the trading activities of the company and it earned an income of Rs.150.31 lakhs from the air cargo complexes during 1994-95. The total income of the company including stock differential during 1994-95 amounted to Rs.304.17 lakhs against Rs.99.93 lakhs in the previous year. These activities of the Company resulted in a net profit of Rs.11.61 lakhs during the year under review as against Rs.0.80 lakh in the previous year, 1993-94. The operations of air cargo complexes and trading activities enabled the company to reduce its accumulated loss to Rs.0.94 lakh by the end of March, 1995 from Rs.12.55 lakhs in the previous year.

Kerala State Industrial Products Trading Corporation Limited

6.17 This Corporation has been engaged in the trading activity of the products of Government Companies and industrial concerns. It is the marketing agency for the sale of products manufactured by Travancore Titanium Products

Ltd. since 1979. The Corporation has been running on profit since 1979-80, and paying dividend to the State Government at 20 percent since 1981-82. In spite of the fact that the sales turnover of the company during the year 1994-95 stood at Rs.78.86 crores as against Rs.54.93 crores in the previous year, the profit earned by it has declined to Rs.35.26 lakhs during the year under review from Rs.58.18 lakhs in the previous year. An amount of Rs.25.44 lakhs was remitted to Government by way of service charge during 1994-95 in addition to the payment of dividend. The additional revenue to the State by way of Kerala State Sales Tax, as a result of canalisation of sales through this Corporation during 1994-95 is estimated at Rs.15.24 crores. Besides, the Corporation also collected and remitted Rs.2.85 crores by way of Central Sales Tax during the year under review.

Kerala State Textile Corporation Limited.

6.18 This Corporation has under its fold four textile mills, viz., Prabhuram Mills, Kottayam Textiles, Malabar Spinning and Weaving Mills and Edarikkode Textiles. The modernisation programmes of Prabhuram Mills and Kottayam Textiles commenced in 1988-89 were completed in 1992-93 and 1994-95 respectively. The capacity expansion of Edarikkode Textiles and modernisation of Malabar Spinning and Weaving Mills are still delayed for want of approval of the revised financing pattern by Government. The production of cotton yarn by these four mills declined to 25.17 lakh Kgs. in 1994-95 from the level of 27.06 lakh Kgs. in the previous year. But, the value of production increased to Rs.30.63 crores from Rs.26.59 crores during the same period. The Knitwear and Elastic Division of the Corporation was not fully functional during the year though the Corporation could produce 0.48 lakh metres of elastic tapes worth Rs.2.19 lakhs during 1993-94. The total sales turnover of the Corporation during 1994-95 reached Rs.30.40 crores with an increase of 13.56 percent from the previous year's level of Rs.26.77 crores. According to the Corporation, the cost of raw materials increased by 11.56 percent during the period between 1993-94 and 1994-95. Hence, the operation of the Corporation during 1994-95 resulted in a loss of Rs.40.06 lakhs as against a net profit of Rs.180.48 lakhs in the previous year. Its accumulated loss has gone up to Rs.433.61 lakhs by the end of March, 1995 from the level of Rs.394.28 lakhs in the previous year.

Electronics Technology Parks, Kerala.

6.19 The Electronics Technology Park, Kerala, known as 'Technoparks' is India's first Electronics Technology Park and has been set up at Karyavattom in Thiruvananthapuram district exclusively for the promotion of Electronics and Software industries in the State. The Park was formed in 1990 and the construction activities started in 1992. Industrial units started moving to the Technopark Campus in September, 1994. Over these years, the Park has been able to create a favourable image among prospective investors, both within and outside the country. It is also recognised as one of the most promising members of the International Association of Science Parks. Recently, the Park has been elected to the International Board of the Association. So far 28 industrial modules has been constructed in the Park. All the built up space so far constructed has been taken up by industrial units of which 7 have started commercial operations. A satellite earth station with high speed data communication links for Software experts has also been established in the Park. The Technopark has been dedicated to the nation in November, 1995.

Kerala Industrial Infrastructure Development Corporation (KINFRA)

6.20 Kerala Industrial Infrastructure Development Corporation, set up as a statutory body with the objectives of accelerating the industrial development of the State by providing World class infrastructure facilities to industries, has already undertaken projects for providing the industry with such structures and facilities as may be necessary for its growth and development. Four major projects, viz., Export Promotion Industrial Park at Kochi, International Apparel Park at Thiruvananthapuram, Integrated Infrastructure Development Centre at Thiruvananthapuram and Integrated Industrial Township at Palakkad are being implemented by Kinfra. These projects together will cost Rs.298.40 crores. Facilities will be provided to 590 industrial units on completion of these projects and a total capital investment of Rs.2372 crores is expected from these units. The total employment potential anticipated from these units is estimated at 90,000. Kinfra has so far acquired 600 acres of land in Thiruvananthapuram, Emakulam, Palakkad and Malappuram districts for various types of projects. Government land of around 65 acres in Irapuram and 172 acres in

Mazhuvannur villages of Emakulam district are being transferred to Kinfra for implementing various projects. Two subsidiary companies viz., Kinfra Export Promotion Industrial Park and Kinfra International Apparel Park were formed during 1994-95 for the speedy completion of the respective projects at Kochi and Thiruvananthapuram.

State Public Sector Manufacturing Industrial Enterprises

6.21 There were 44 manufacturing Industrial Enterprises in the State under the administrative control of the Industries Department as at the end of March, 1995. Among these, 20 enterprises were fully owned by the State Government, while the majority shares of the remaining 24 enterprises were jointly held by the State Government and its holding companies. The Kerala Special Refractories Ltd. has not started commercial production, as the Company has been proposed for liquidation. The performance of Foam Mattings (India) Ltd. has been dealt with elsewhere in this chapter. Some of the units are yet to finalise their accounts for the year 1994-95. The working of all the five units managed by the Kerala State Industrial Enterprises during the last three years have been seriously affected and all of them are more or less defunct. However, 33 companies including Foam Mattings (India) Ltd. have furnished the details of their performance during 1994-95.

6.22 Among the 20 public sector manufacturing industrial enterprises, whose shares are fully owned by State Government, 14 enterprises have furnished the details of their performance in terms of value of production and sales turnover during 1994-95. Out of these the performance in respect of value of production of 12 enterprises were encouraging during 1994-95. The Kerala Hitech Industries Ltd. has started commercial production during the year under review. The plant of Kerala State Salicylates and Chemicals was not functioning during 1994-95. The value of production of all these enterprises increased to Rs.386.02 crores in 1994-95 from the level of Rs.304.92 crores in the previous year. The sales turnover of these 14 enterprises except the Kerala State Salicylates and Chemicals and the Kerala Hitech Industries Ltd. also improved in 1994-95 from the level of 1993-94. The total sales turnover of all these 14 enterprises, except the Kerala State Salicylates and Chemicals Ltd. during 1994-95 amounted to Rs.366.23 crores against

Rs.318.33 crores in 1993-94. Among the remaining six units which have not furnished the details of their performance in 1994-95 include Scooters Kerala Ltd., Kerala Ceramics Ltd and four subsidiary units of KSIE Ltd. Kerala Automobiles Ltd. and Kerala Minerals and Metals Ltd. showed better performance in their capacity utilisation during 1994-95 compared to that in 1993-94. The Malabar Cements Ltd. could retain almost the same level of its capacity utilization in 1994-95 as in the previous year. The performance in regard to the capacity utilization of all the remaining 11 enterprises except Kerala Hitech Industries Ltd. was not found satisfactory. As the Kerala Hitech Industries Ltd. started commercial production only in 1994-95, it is too early to assess its capacity utilization. Relevant data relating to these enterprises are given in Appendix tables 6.2, 6.3 and 6.4.

6.23 Among the 24 public sector manufacturing industrial enterprises in which the State Government and its holding companies are holding majority shares, 19 enterprises have furnished the details of performance in terms of value of production and sales turnover during 1994-95. The enterprises which have not furnished these details for 1994-95 were Kerala Construction Components Ltd., Sidkel Televisions Ltd., Steel Complex Ltd., The Chalakudy Refractories Ltd. and Kerala Garments Ltd. Out of the 19 enterprises which furnished the details, the performance of six enterprises in terms of value of production during 1994-95 was not satisfactory compared to that in the previous year. They were Keltron Counters Ltd., Keltron Magnetics Ltd., Keltron Power Devices Ltd., Keltron Rectifiers Ltd., Keltron Crystals Ltd. and the Travancore Cochin Chemicals Ltd. Among the Keltron Group of companies the Keltron Component Complex Ltd., Keltron Electro Ceramics Ltd. and the Keltron Resistors Ltd. showed better performance in terms of value of production. Through Keltron Magnetics Ltd. showed poor performance in terms of value of production in 1994-95, its performance in sales turnover during the year under review was encouraging. Among the remaining 18 enterprises, the performance in respect of sales turnover by 13 enterprises was better in 1994-95 than that in the previous year. The enterprises which showed poor performance in terms of sales turnover during 1994-95 were Keltron Counters Ltd., Keltron Power Devices Ltd., Keltron Rectifiers Ltd., The

Travancore Sugars and Chemicals Ltd. and Keltron Crystals Ltd. The capacity utilisation of majority of the enterprises in this group during 1994-95 was not encouraging. The enterprises which showed satisfactory performance in terms of its capacity utilisation during 1994-95 compared to that in the previous year were Forest Industries (Travancore) Ltd., Keltron Component Complex Ltd., Keltron Crystals Ltd., Keltron Electro Ceramics Ltd., Keltron Resistors Ltd., The Metal Industries Ltd., The Travancore Cochin Chemicals Ltd., The Travancore Cements Ltd., Traco Cable Company Ltd. and Astral Watches Ltd. The relevant details of the enterprises under the Government majority group are furnished in Appendix tables 6.5, 6.6 and 6.7.

6.24 Out of 33 manufacturing enterprises reported, 12 units have suffered loss of mandays and production during 1994-95 for various reasons. Loss of mandays of these units increased to 96919 in 1994-95 from 87994 in the previous year. The loss of mandays in these units resulted in loss of production to the extent of Rs.15.92 crores in 1994-95 as against Rs.14.64 crores in the previous year. Certain units among these 12 enterprises have not yet estimated the quantum of its loss of production on account of mandays lost in 1994-95. The unit-wise details of loss of mandays and production during 1993-94 and 1994-95 are furnished in Table 6.5

6.25 As at the end of March 1995, there were 59 public sector enterprises, excluding the Khadi and Village Industries Board in the State under the administrative control of the Industries Department. Among these, the details of working results pertaining to 1994-95 have been furnished by 45 enterprises only. On reivewing these enterprises, it is seen that 22 units were working on profit. This included 14 units under the group of modern manufacturing industries, one unit each under the groups of wood based industry and trading units. The groups of traditional industries and promotional units represented 4 and 2 units respectively. These 22 units together earned a net profit of Rs. 81.41 crores, major contributors being the Chemical Industries group. On the other hand, 23 units together incurred a net loss of Rs. 75.27 crores during the year under review. The latest available figures of the 14 enterprises which have not furnished the details of their performance in 1994-95, indicate that 48 units out of 59 were having

TABLE 6.5
 DETAILS OF MANDAYS LOST AND PRODUCTION LOSS IN THE STATE PUBLIC SECTOR
 MANUFACTURING INDUSTRIAL ENTERPRISES DURING 1993-94 and 1994-95

Sl. No.	Name of Company	Main Reasons	Mandays Lost (Nos.)		Production Loss (Rs. lakhs)	
			1993-94	1994-95	1993-94	1994-95
1	2	3	4	5	6	7
A. Govt. Owned Companies						
1.	Autokast Ltd.	Absence on loss of pay and Bandh	23098	23442	NE	NE
2.	Kerala Automobiles Ltd.	Strike and Bandh	262	864	6.75	20.25
3.	Kerala Electrical and Allied Engg. Company Limited	Bandh, power failure, lay off etc.	2434	3033	51.24	51.38
4.	Sitaram Textiles Limited	All Kerala Mill Workers Strike,	2	16	6.51	88.00
5.	Steel and Industrial Forgings Ltd.	Shortage of raw materials and power, machine breakdown	9744	5578	565.00	591.00
6.	Steel Industrials Kerala Limited	Bandh, power failure, breakdown of machinery	11180	NE	42.69	NE
Sub Total (A)			46720	32933	672.19	750.63
B. Govt. Majority Companies						
7.	Keltron Counters Limited	-	-	19354	-	NE
8.	Keltron Rectifiers Ltd.	Bandh	378	236	1.32	0.54
9.	Metal Industries Ltd.	Mechanical and Electrical breakdown and absenteeism	5226	3915	43.36	24.36
10.	The Travancore Cements Ltd.	Standardisation, repairs and powercut	69	70	644.00	710.28
11.	Travancore Cochin Chemicals Ltd.	Power failure and break down	33415	37963	67.02	66.56
12.	Traco Cable Company Ltd.	Machine breakdown, Raw material shortage, power failure	2186	2448	35.61	39.88
Sub Total (B)			41274	63986	791.31	841.62
TOTAL (A+B)			87994	96919	1463.50	1592.25

N.E : Not Estimated

accumulated loss amounting to Rs.678.23 crores as against their total paid up capital of Rs. 540.86 crores. The accumulated loss of 34 companies had exceeded their paid up share capital and the total accumulated loss of these companies stood at Rs. 625.27 crores as at the end of March 1995. The details of these units are given in Table 6.6. The group wise working results of the State Public Sector Undertakings coming under the administrative control of the Industries Department are furnished in Appendix 6.8

TABLE 6.6
 DETAILS OF PUBLIC SECTOR UNDERTAKINGS WHOSE
 ACCUMULATED LOSS
 EXCEEDED THEIR PAID UP CAPITAL
 (Amount in Rs.lakhs)

Sl.No	Name of Undertaking	Paid up Capital as on 31.3.95	Accumulated Loss as on 31.3.1995
1	2	3	4
Electronics			
1	Kerala State Electronics Development Corporation Limited	8490.38	9926.15
2	Keltron Counters Ltd.	459.90	1138.42
3	Keltron Crystals Ltd.	133.98	164.82

4. Keltron Magnetics Ltd.	25.09	93.34
5. Keltron Resistors Ltd.	139.81	146.46
6. Keltron Power Devices Ltd.	410.23	2148.57
7. Sidkel Televisions Ltd.	43.50*	173.35*
8. Keltron Rectifiers Ltd.	274.36	1152.07
KSIE Group		
9. Kerala State Detergents and Chemicals Ltd.	154.63**	1556.72**
10. Kerala State Drugs and Pharmaceuticals Ltd.	430.00*	2546.49*
11. Kerala Soaps and Oils Ltd.	185.69@	2313.00@
12. Kerala State Salicylates and Chemicals Ltd.	638.00*	1711.50*
13. Travancore Plywood Industries Ltd.	48.59*	1057.58*
Chemical		
14. The Kerala Minerals and Metals Ltd.	3093.27	5009.94
Electrical and Cable		
15. The Metropolitan Engineering Company Ltd.	192.91	381.31
16. Transformers and Electricals Kerala Ltd.	1357.54	3327.87
Engineering		
17. Steel Complex Ltd.	400.00*	1195.81**
18. Scooters Kerala Ltd.	229.99*	316.85*
19. Astral Watches Ltd.	8.00	77.30
20. Kerala Automobiles Ltd.	730.99	1529.10
21. Steel and Industrial Forgings Ltd.	450.00	1491.00
22. Autokast Ltd.	1310.00	6291.26
Ceramics and Refractories		
23. Kerala Construction Components Ltd.	28.07*	53.78*
24. The Kerala Ceramics Ltd.	1301.98*	1206.11*
25. The Chalakudy Refractories Ltd.	346.64**	488.81**
Textiles		
26. Kerala Garments Ltd.	20.00*	108.21*
27. Sitaram Textiles Ltd.	420.00	1658.00
28. Trivandrum Spinning Mills Ltd.	294.25	819.78
Agro based		
29. The Travancore Sugars and Chemicals Ltd.	51.00	226.91
Traditional		
30. Kera State Handloom Development Corporation Ltd.	473.03	565.36
31. Kerala State Coir Corporation Ltd.	257.54	267.62
32. Kerala State Cashew Development Corporation Ltd.	3058.95	13576.30
Welfare Agencies		
33. Kerala Artisans Development Corporation Limited.	8.00	97.39
Promotional		
34. Kerala Small Industries Development Corporation Ltd.	625.04*	811.11*
Total	26091.36	62527.29

* As on 31.3.1994

** As on 31.3.1993

@ As on 31.3.1992

Central Sector Investment in Kerala

6.26 As on 31st March 1994, Central Investment (in terms of Gross Block) in Kerala has increased to Rs. 2566 crores from Rs. 2275 crores in March, 1993. (Fig. 6.4) The share of Central Sector Investment in Kerala has been steadily declining from 3.24 percent in 1975 to 1.29 percent as on 31st March, 1994. (Fig. 6.5) The total Central sector investment in the Country has increased from Rs. 173501 crores in March, 1993 to Rs. 198912 crores by the end of March, 1994,

showing an increase of Rs. 25411 crores during the financial year 1993-94. Out of this, Kerala received only Rs. 291 crores constituting just 1.15 percent of the incremental investment made by the Central Government in the country as a whole. The data relating to the Central Sector investment in the country and Kerala at different intervals are furnished in Table 6.7.

TABLE 6.7
Central Sector Investment in Kerala
(Amount in Rs. Crores)

Year	Investment (Gross Block) as on 31st March		Percentage of Column (3) to Column (2)
	All India	Kerala	
1	2	3	4
1970	3795	116	3.06
1975	6242	202	3.24
1980	18161	423	2.33
1985	47323	831	1.76
1990	113430	1701	1.50
1991	130657	1853	1.42
1992	153893	2000	1.30
1993	173501	2275	1.31
1994	198912	2566	1.29

Source : Centre for Monitoring Indian Economy,
Bombay.

6.27 Eighteen Central Sector Undertakings including five textile mills managed by the National Textile Corporation Ltd. were functioning in Kerala during 1994-95. They were

1. Cochin Refineries Ltd., Kochi.
2. Cochin Shipyard Ltd., Kochi.
3. The Fertilizers and Chemicals Travancore Ltd., Aluva.
4. Hindustan Newsprint Ltd., Kottayam
5. Hindustan Latex Ltd., Thiruvananthapuram.
6. Indian Rare Earths Ltd., Rare Earths Division, Aluva and Minerals Division, Kollam.
7. Indian Telephone Industries Ltd., Palakkad
8. Instrumentation Ltd., Palakkad.
9. Hindustan Insecticides Ltd., Udyogamandal.
10. Modern Food Industries (India) Ltd., Edappally.
11. H.M.T. Ltd., Kalamasseri.
12. Balmer Lawrie & Company Ltd., Aroor.
13. Hindustan Organic Chemicals Ltd., Kochi.

Units under National Textile Corporation Ltd.

14. Cannanore Spinning and Weaving Mills, Kannur.

CENTRAL SECTOR INVESTMENT IN KERALA (Investment in Rs Crores)

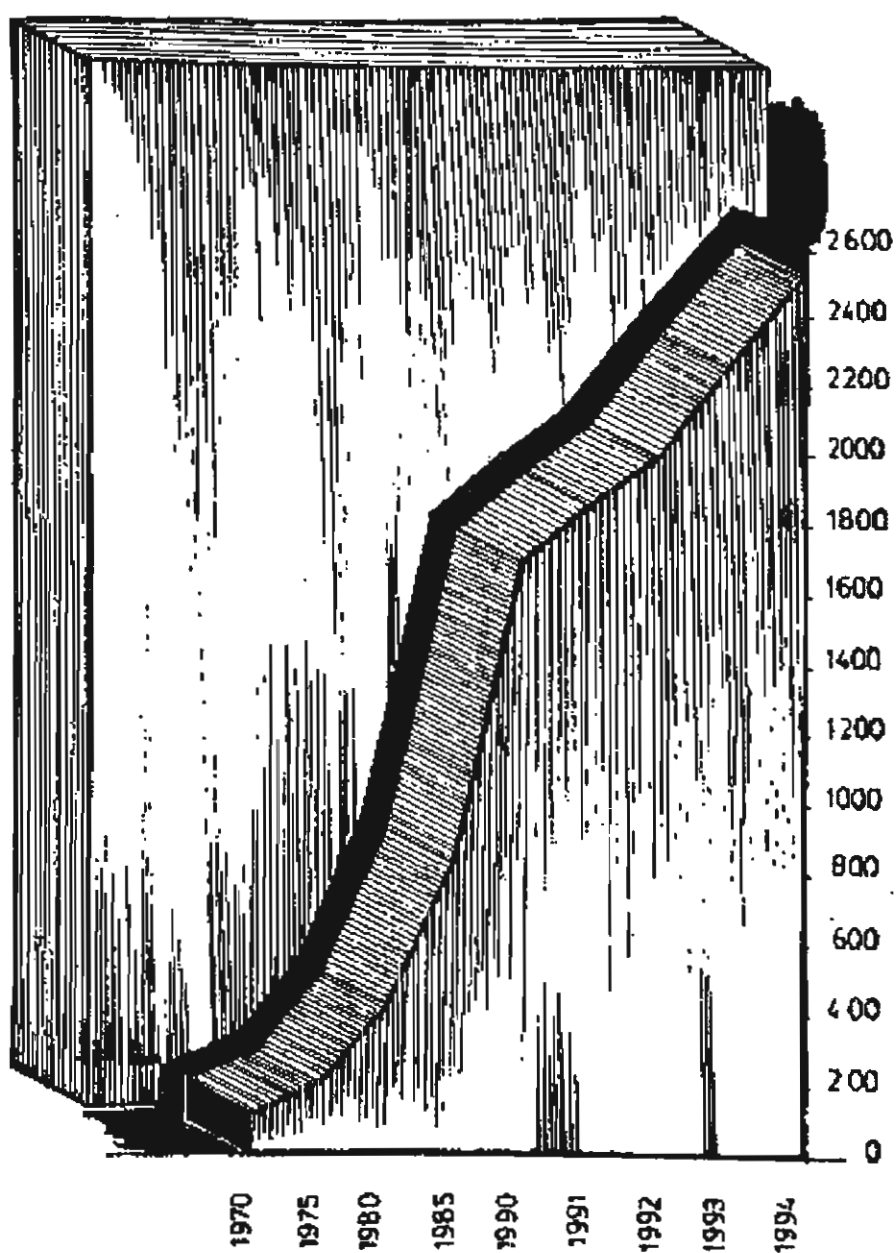


Fig 6.4

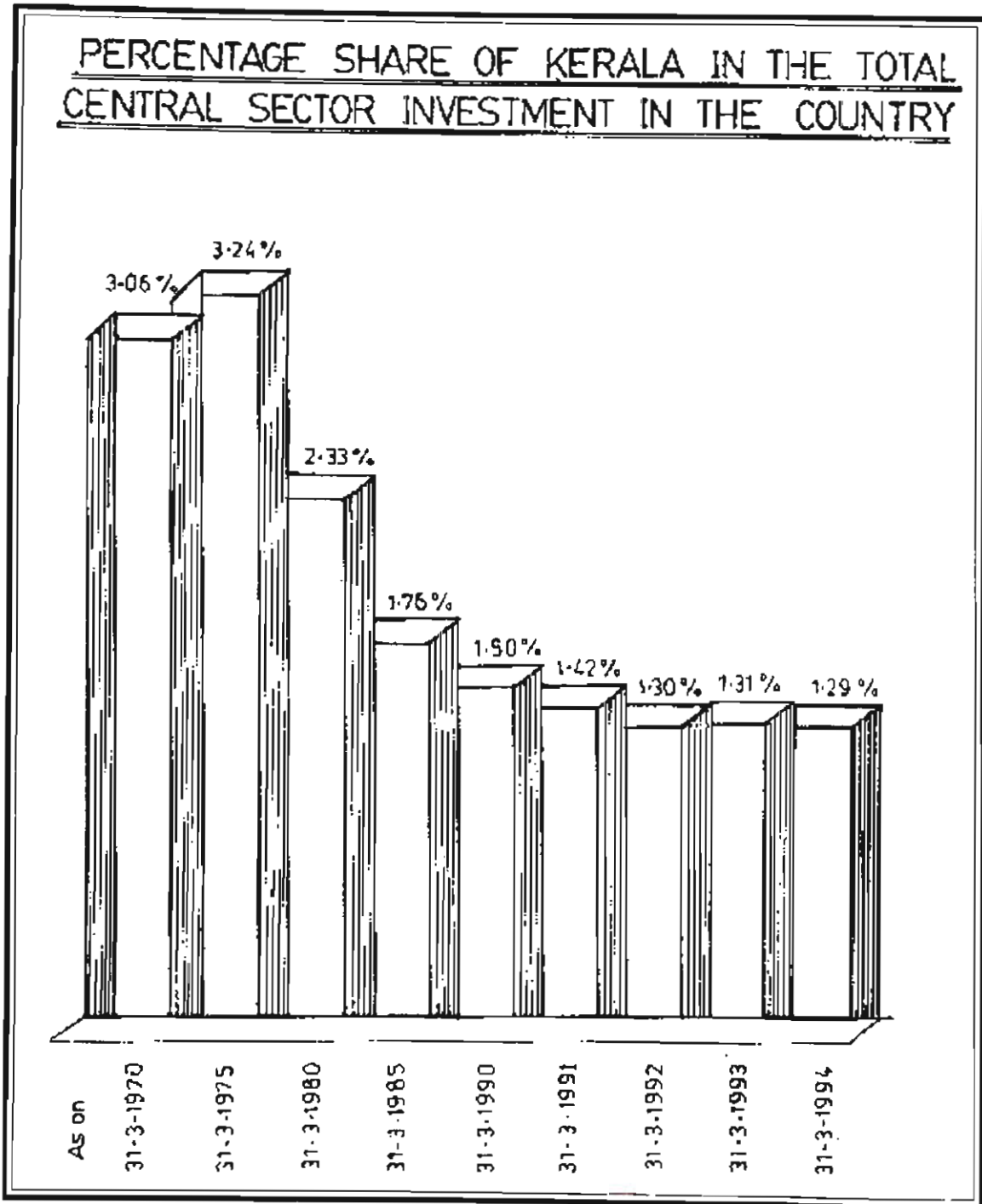


Fig. 6.5

15. Vijayamohini Mills, Thiruvananthapuram.
16. Parvathy Mills, Kollam.
17. Kerala Lakshmi Mills, Thrissur.
18. Alagappa Textiles (Cochin) Mills, Thrissur.

6.28 Certain salient features of the Central Sector manufacturing units working in Kerala are furnished in Appendix tables 6.9 to 6.12.

Small Scale Industries

6.29 During 1994-95, 15836 Small Scale Industrial units were newly registered in the State, against a target of 15,000 units marking a growth of about 9 percent over the previous year. The capital invested by these units amounted to Rs.19217.92 lakhs whereas the value of goods and services produced by them in 1994-95 stood at Rs.65232.56 lakhs. These Units have created employment opportunities to 73618 persons. Of the total number of 15836 SSI units registered during this period, 3619 units were run by women entrepreneurs and 1053 by SC/ST entrepreneurs. The district wise performance shows that Ernakulam (1915 units) and Thiruvananthapuram (1758 units) continue to maintain the top position (Ernakulam district accounted for 12 percent of the total number of new SSI units registered during the year followed by Thiruvananthapuram with 11 percent. Idukki and Wayanad districts accounted for the lowest number of new SSI units with only 355 and 281 units respectively. District-wise details of the SSI units registered in Kerala during the year 1994-95 are furnished in Appendix - 6.13. The unprecedented growth in the number of industries was made possible by the measures taken up under the New Industrial Policy and the Intensive Industrialisation Programme launched by the Government. The Intensive Industrialisation Programme (IIP) launched on 1st February, 1993 had the objective of promoting 30,000 new SSI units within a period of two years. But the State could promote 30584 new SSI units in the stipulated period. It is worth mentioning here that a total number of 41780 new small units could be registered during the first three years of the Eighth Plan against the five year target of 50000 numbers.)

6.30 Total number of Small Scale Industrial units registered in Kerala as on 31st March, 1995 reached a level of 126220 with a total investment of Rs.136734.18 lakhs and employment potential of 703161.(Fig. 6.6) Among these, 19361

units were promoted by women Entrepreneurs. [Fig. 6.7] District-wise details of registered small scale units in Kerala as on 31.3.1995 are given in Appendix 6.14. Out of 126220 registered units, 4058 units remained closed during 1994-95 and 2705 units were found sick. Thirty six sick units were revived during the period. District-wise details of working status of SSI units as on 31.3.1995 are furnished in Appendix. 6.15. During 1994-95, 392 prospective entrepreneurs were trained under the Entrepreneurship Development Programme while 30 persons trained under the programme had started new SSI units. District-wise details of Entrepreneurship Development Training Programmes are given in Appendix 6.16.

6.31 During 1994-95, about 926 Artisan units were established. The district wise performance (Appendix 6.17) indicates that the districts of Wayanad and Thiruvananthapuram were on the top position in this regard. Under Self Employment Programme (Appendix 6.18) an amount of Rs.57.22 crores was sanctioned to 11123 persons for establishing their own ventures, under industries. Service and Business category during 1994-95. Out of this, Rs.34.78 crores was disbursed to 7238 beneficiaries during the year under Prime Ministers' Rozgar Yojana Scheme (PMRY) for setting up their own self employment ventures. Under the Co-operative Sector, 143 industrial co-operative societies were newly registered during 1994-95 (Co-operative year) as against 76 in the previous year, taking the aggregate number of societies to 1918 as on 30-6-1995 (Appendix 6.19)

Kerala Financial Corporation

6.32 The Kerala Financial Corporation is the major State sector financial institution in Kerala for providing credit to industrial units especially those in the small scale sector. During the year under review, the Corporation received 1977 applications for an aggregate amount of Rs.13460.45 lakhs as against 2165 applications for Rs.10528.95 lakhs received during the previous year. The Corporation sanctioned an amount of Rs.10934.58 lakhs to 1816 units against Rs.7734.15 lakhs to 1856 units during the previous year. The summary statement indicating the operations of the Corporation is furnished in Appendix 6.20. Of the total net effective sanction of Rs.10934.58 lakhs, sanctions to small scale units amounted to Rs.7107.48 lakhs whereas the

NUMBER OF REGISTERED SMALL SCALE UNITS IN KERALA

(CUMULATIVE)

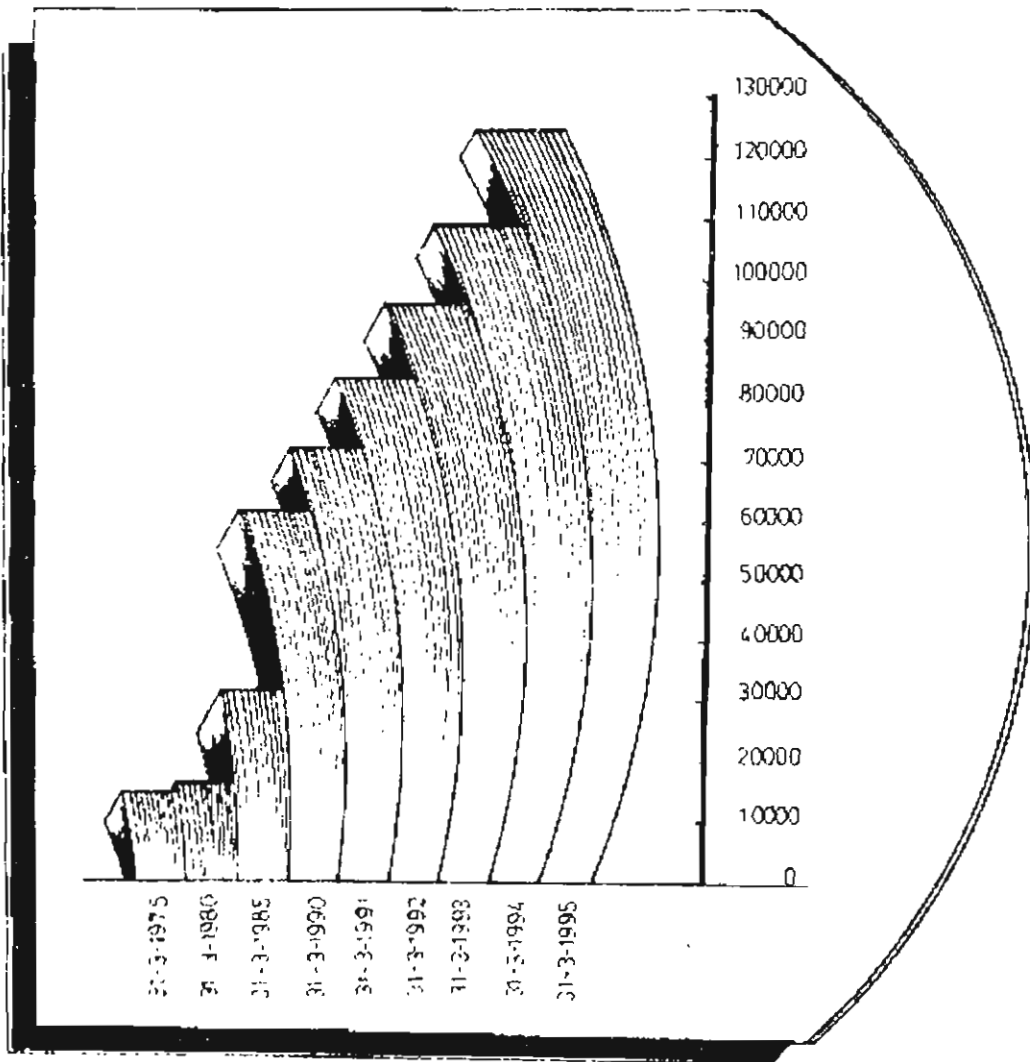


Fig. 6.6

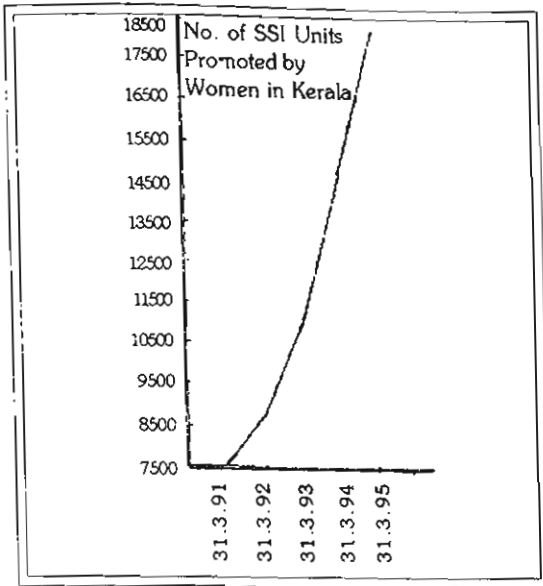


Fig. 6.7

assistance sanctioned to units in the backward areas amounted to Rs.5686 lakhs for 1032 units. With the sanction of Rs.10934.58 lakhs during 1994-95, the cumulative effective sanction by the Corporation as on 31.3.1995 stood at Rs.73288.57 lakhs.

6.33 The total disburseable amount of the Corporation stood at Rs.20157.67 lakhs against which the disbursement during the year under report amounted to Rs.7538.54 lakhs which works out to 38 per cent of total disburseable amount. This is against Rs.6842.43 lakhs disbursed in 1993-94 representing 42.59 per cent of total disburseable amount during that year. Of the total amount of Rs.7538.54 lakhs disbursed for 1131 units during 1994-95, an amount of Rs.3725.95 lakhs (49.43%) was disbursed to 645 industrial units in backward districts. The details of district-wise disbursement of loan by the Corporation during the year 1994-95 is furnished in Appendix 6.21

6.34 In spite of its best efforts, disbursement by the Corporation is not picking up at the expected pace with the result that the gap between sanction and disbursement is increasing. This is mainly due to the high interest rates which force the loanees to delay the drawal of loan. Recovery of dues has been given the highest priority during the year under review. The total amount of collectible arrears at the beginning of the year amounted to Rs.15581 lakhs. Including the current demand, the total amount collectible during 1994-95 amounted to Rs.28395 lakhs

Against this, the recovery during the year was Rs.9704 lakhs representing 34.17 per cent of the total collectible amount. The rate of recovery during the year increased by 16% over that of Rs.8362 lakhs in 1993-94. The total amount of arrears at the end of the year amounted to Rs.18691 lakhs.

6.35 An analysis of the industry-wise classification of loans sanctioned by the Corporation upto 31.3.1995 (Appendix 6.22) indicates that the transport sector continues to constitute the largest single category which received 18% of the total effective sanctions. Rubber goods, food processing, hotels, chemical products, metallic products and textiles are the other sectors which have received substantial assistance from the Corporation. It is also seen that loans of the size between Rs.2 lakhs and Rs.5 lakhs constitute the major part of the total effective loans sanctioned. The total share capital of the Corporation including share advance stood at Rs.5600.42 lakhs as on 31.3.1995. The operations of the Corporation during 1994-95 resulted in a net profit (after provision and transfer to reserve) of Rs.58 lakhs. Progress of the working of Kerala Financial Corporation during the year 1994-95 is given in Appendix 6.23

Kerala Small Industries Development Corporation (SIDCO)

6.36 The Kerala Small Industries Development Corporation (SIDCO), a fully owned Government Corporation, was registered as a Company on 6.11.1995. The major activities of this Corporation during 1994-95 centred on distribution of raw materials and extending marketing assistance to registered SSI units in the State. The Rawmaterial Division of SIDCO procured and distributed scarce raw materials like iron and steel, paraffin wax, coke, coal, T i02, LDPE, HDPE, PVC, Palm fatty acid etc. through its raw material depots in each district. The total quantity of various raw materials distributed through its different depots amounted to 18,062 tonnes in 1994-95 benefiting about 1714 SSI units. The Marketing Division rendered marketing assistance to registered SSI units through its sales emporia in Kannur, Kozhikode, Emakulam, Kottayam, Kollam and Trivandrum districts. A total number of 125 SSI units were benefited by the assistance of this Division and products worth Rs.176 lakhs could be marketed during 1994-95.

6.37 The Corporation is having 17 major Industrial Estates. All the 527 sheds in these estates had been occupied by 323 SSI units in March 1995. Of these, 295 units were working in 1994-95. About 25 defunct/idle units were closed during the year. The Corporation provided employment to a total number of 854 persons as on 31.3.1995. The paid up share capital of the Corporation amounted to Rs.626.57 lakhs at the close of the year 1994-95 whereas its long term borrowings stood at Rs.370 lakhs. The total value of production and the total income earned by the Corporation during this period were Rs.34.20 crores and Rs.33.46 crores respectively. Total sales turnover of the Corporation during 1994-95 attained a level of Rs.32.14 crores as against the previous year's turnover of Rs.29.87 crores. The provisional accounts of the Corporation for the year 1994-95 shows a net loss of Rs.172.81 lakhs.

Small Industries Service Institute (SISI)

6.38 The Small Industries Service Institute, Trichur, a field agency of Small Industries Development Organisation (SIDO) in Kerala is functioning with the main objective of providing techno-economic and managerial consultancy services to the existing and prospective small scale industries in the State and the Union territory of Lakshadweep. It also imparts workshop training in Machine Shop practices, Electric and gas welding etc. at the workshop attached to the Institute. The Footwear Services Training Centre of the Institute provides training in the manufacture of footwear and other fancy leather goods and the Vegetable Preservation Division imparts special training in fruits and vegetable preservation. Other important activities of the Institute include conducting implant and diagnostic studies for rehabilitation of sick units, modernisation studies for technology upgradation, quality control, energy conservation and pollution control, specialised training programmes on export marketing, entrepreneurial development and management. The SISI also conducts surveys and studies for identification of industries having scope for promotion and development with specific emphasis on resources availability of infrastructure facilities and other growth potential.

6.39 During the year 1994-95, the Institute undertook a total number of 554 job works and provided common facility services to 237 SSI units.

It earned a revenue of Rs.2.88 lakhs by way of service charges, consultancy charges and sale proceeds of technical literature. The Institute prepared 29 project profiles, study reports, technical literature, publications, manuals and directory and circulated for the benefit of the existing and prospective entrepreneurs during the year under report.

6.40 The technical divisions of the Institute provided consultancy services in 2252 cases including 2089 cases relating to new units. Details of technical assistance given to existing and prospective entrepreneurs by the Institute during the year 1994-95 is furnished in Table 6.8.

Table 6.8
Details of Technical Assistance offered by SISI during 1994-95.

Sl. No.	Type of Assistance Provided	No. of Cases
1	2	3
1.	Technical Consultancy	1809
2.	Product Development	17
3.	Training	263
4.	Assistance through DICs and other developmental agencies.	163
Total		2252

6.41 Under the programme of Modernisation, the Institute conducted various studies/programmes viz. cluster group study on Latex products, Unit specific study under cluster group of Latex products, Plant guide on ceramic kiln, furniture and modernisation guide on glazed sewerpipes. The main activities undertaken by the Institute under the Programme of Ancillary Development include Plant Level Committee Meetings, Buyers-Sellers Meet and Sub contracting arrangements. During the year 1994-95, supplies worth Rs.548 lakhs were made by ancillaries to various large and private sector undertakings and a Directory of Ancillary Units has been prepared. Under the Sub Contract Exchange Programme, a total number of 1093 eligible units were registered in Kerala upto 31.3.1995. Under the programme of Export promotion, the Institute conducted a Training Programme in packaging for Export of processed fish products during the year. The Institute also offered export related assistance to 256 Units. The Economic Investigation Division supplied brief market information to various prospective entrepreneurs during the year 1994-95. The section also compiled and updated a State profile of Kerala for the benefit of various development agencies engaged in the promotion of SSI units in the State.