

CHAPTER VIII

ECONOMIC TRENDS

The Economic Trends of an area depend upon its natural and financial resources, manpower, employment, standard of life, aptitude of people towards savings as well as extent of savings, besides other infrastructural facilities like banks, communication, transport, marketing, etc. Kodagu district being predominantly agriculture based, a large number of people stay in rural areas. The average annual rainfall in the district is 2,725 mm. The rivers and streams which flow rapidly here cause heavy erosion of land. About a third of this district is covered by forests full of valuable trees like teak, rosewood, *mathi*, sandalwood, bamboo and the like. The Forest Department of the State Government has invested funds under various schemes for the development of forests so as to maintain the district in evergreen condition. In the hill slopes of the district Commercial Crops like coffee, cardamom, tea, orange, pepper etc., and in the hinterland and plains paddy and pulses are grown. The Spices Board of India has undertaken distribution of seedlings, technical consultancy, financial aid, pesticides and irrigation implements for the development of crops like cardamom, black pepper etc. The Orange Development Board has been lending assistance for the growth and development of orange orchards, but in recent years this crop has been dwindling by diseases.

Though mineral resources and major industries are non-existent in Kodagu district, several medium and small scale industries are found to be satisfactorily thriving. Several products of small scale industries of this district are of long reknown. Knives with intricate carvings and clothes embroidered lace borders have been specially noted products of this district. While Shirangala located in the north-eastern part of the district was famous for clothes with embroidered lace borders, Shanivarasanthe was famous for Cotton Clothes, Fraserpet (Kushalnagar) was famous for

the distillery. However consequent upon the decline in the production of coffee the output from the distillery, also has dwindled. The tiles and pots industry which began at Mercara in 1882, continued to function till 1898.

The Dairy Development project at Kudige, Kodagu Coffee curing works and Cauvery Coffee Curing Works in Kushalnagar are the medium industries in the district. By the end of March 1990 there were 1,171 registered Small Scale Industries in the district. Small industries like Pottery, Smithy, carpentry, leather, cane and bamboo oriented industries abound here. The small Industries Service Institute (S.I.S.I) has established two Industrial Estates for development of small industries. Among them one is at Madikeri with 18 sheds and the other is at Kushalnagar and has 8 sheds. The Karnataka Industrial Area Development Board (K.I.A.D.B) has developed 250 acres as Industrial Area in Kudlur of Somvarpet Taluk, and has thus assisted development of Major and Medium Industries. However, this is yet to be fully utilised.

The soil and climate of Kodagu District is congenial for garden crops. The Horticultural Department has under various schemes produced seedlings of cardamom, blackpepper, coconut, plaintain (banana), orange, etc. and is distributing them to growers. This department has also laid emphasis for development of fruits and vegetables on priority basis. As a measure of conservation and improvisation of ecology this department has been maintaining parks by spending Rs. 5,000 per annum.

The State Government initiated Command Area Development Programme in the district in 1984-85 as a measure of prevention of deterioration of fertility in soils due to erosion and to prevent land from being left fallow and also to promote beneficial use of rain water. The Command Area Development Work has been taken up in 13,500 ha, in the Command Area under 'Kyathe hole' in Somvarpet Taluk and the work is progressing. The Forest Department has completed afforestation in 160 ha and has dug trenches to prevent erosion in 200 ha. in this area. The Horticulture department has developed parks in 18 ha and Orchards in 54.40 ha, the Soil Conservation Department has formed contour bunds numbering 300 in this area.

Recently sericulture has been initiated in this district and between 1984-85 and 1989-90 more than Rs.15 lakhs have been disbursed to 1,048 beneficiaries. Silk Farm has also been developed in 25 acres at Kudige in Somvarpet Taluk. Apart from producing Bivoltine seed cocoons, this farm has also been producing and supplying Mulberry cuttings to needy agriculturists.

There were 1,798.32 km long 11 K.V. electricity grid for supplying electricity in the district along with 2716.20 km long L.T. Network by the end of 1990. By this time 426 villages (including hamlets) had been electrified. Under Bhagyajyothi Scheme 26,490 houses were covered. Of these, 6,764 houses were in Madikeri Taluk while 11,867 in Somvarpet Taluk and 7,859 in Virajpet Taluk. There were 8,037 all-electric houses, 6,984 commercial units, 2,554 electrical pumpsets, 1,576 electrically-operated industrial units, 136 electrically operated drinking water wells 4,260 street lights. These figures illustrate the extent of utilisation of electricity in the district. Still there was demand for additional power supply to an extent of 66.11 MW in the district which comprised of 9.17 MW for houses 24.15 MW for all-Electric Houses, 3.08 MW for commercial and business units, 18.59 MW for I.P sets, 1.42 MW for H.T.(High tension) purposes, 9.70 MW for other purposes. In 1990-91 power supply was extended to 24,988 houses, 8,678 all-electric homes 3,153

Bhagyajyothi, 7,298 Commercial area, 1,636 industrial area and 158 for others. During the same period there were 2,824 electrical pumpsets in the district, talukwise 447 in Madikeri taluk, 1,171 in Somvarpet taluk and 1,206 in Virajpet taluk.

By the end of 1988, NABARD had sanctioned loans for development of Coffee Plantations to an extent of Rs.159 lakhs on long-term basis, apart from disbursing Rs.100.82 lakhs to 323 members. In the same period 8,773 persons got old-age pension, 9,053 persons got widow pension, and 3,242 persons were drawing monthly pension for disabled. The State Government supplied 952 biogas plants on loan-cum-subsidy basis costing Rs.59,600 lakhs and 4,064 'ASTRA' ovens at a cost of Rs.16,640. (Latest figures are furnished in the tables).

In 1981, the district had achieved 50.15 percent literacy, this progressed to about 58 percent by 1991. Two decades ago this district was ahead of all other districts in the State in literacy. Adult education programme commenced in this district in 1980-81 and by 1987-88 had admitted 74,409 illiterates in the age group of 15 to 35. Of these 51,492 persons have become literates. Akshara Seva Programme is being implemented since 1986-87; under the Mass Creative Literacy Scheme, college students as well as self-assistance institutions have been actively involved for adult education programme.

Kodagu District Central Co-operative Bank has rendered its own contribution in the field of co-operation since six decades. Besides it has covered more than 60 percent of the district's financial needs by way of agricultural loans. There were 180 branches of Commercial Banks (inclusive of Rural Banks) in the district in 1991, and these have induced increased aptitude for saving in the people. As regards commerce the district has a vast marketing facility. Even before the present regulated markets came into existence many towns were noted for commerce. Somvarpet and Kodlipet were famous for marketing of certain products.

The district is devoid of railway, air and waterway transport facilities. Surveys have been conducted for introduction of railways. It is said that residents of Kodagu have protested against laying of railway. At present the district is solely dependent on surface transportation. The economic progress of the district is mainly dependent on forest, coffee, blackpepper, orange, cardamom and paddy. Despite income level of the residents of the district being fairly high, a major portion of the income is being spent on necessities like food, shelter, clothing etc. besides unproductive items like religious and social programmes, resulting in increased number of creditors.

SOCIO-ECONOMIC SURVEYS

The Census Organisation has conducted Socio Economic surveys in Thannimani Village of Madikeri Taluk and Hebbale Village of Somvarpet Taluk in 1961 and has prepared Village Survey Monographs. The report highlights the social and economic changes which have occurred as a result of commencement of Block Development programmes during the Plan period (1952).

During the period of Survey(1962) there were 112 families in Thannimani with population of 669. Majority of the families were located in the vicinity of their own lands. Of the total families

90 belonged to Gowda (Gauda) community. The cultivable lands of 610 acres of this village formed 12 percent of the total area of the village. Of the cultivated lands paddy was being grown in 315 acres. There were about 1,327 livestock and 200 beehives in the village. Grain Loan Co-operative Society and the formation of the Bhagamandala-Karike road have influenced the life in this village.

About 82 percent of Thannimani village population were agriculturists, and 12 percent were working as farm labourers. Land happened to be the major economic resource. Since 1982, 25 families have engaged themselves in rearing honey bees. Several families have started growing cardamom. The average income and expenditure (expenditure figures in brackets) are noted below:

In families cultivating own lands Rs.1,511 (Rs.1,599); In tenants' families Rs.1,321(Rs.1,329); In farm labour families Rs.929 (Rs.928) and in other families it was Rs.480 (Rs.462). Agriculturists used to spend 65.95 percent of their total income on food, 5.11 on tobacco, 17.10 on clothes 0.71 on fuel and lighting, 3.54 on education and 7.59 percent on other items. The tenant families, farm labourers and other families used to spend respectively (in percent) 71.95, 74.52 and 73.63 on food 3.44, 7.6 and 4.73 on tobacco, 16.5, 11.95 and 12.27 on clothes and 0.18, 0.65 and 1.06 on fuel and lighting. While expenditure on education was nil in farm labour families, it was 0.89 percent in tenant families. The total loan of Rs.60,562 borrowed by 112 families of the village has been spread varyingly in different income groups. The distribution of loans were about 81 percent in the families with income of Rs.100 and above, 14.95 percent on loans in families with income level of Rs.76 to Rs.100, about 2.38 percent loan in families with income level of Rs.51 to Rs.75. and about 1.76 percent of loans were distributed among families with income level of Rs.26 to Rs.50. Of the total loans Rs.21,044 were utilised for purchase of agricultural implements, Rs.19,370 for house building and repairs, Rs.7,955 for house-hold expenses, Rs.7,500 for repayment of loans and Rs.3,925 towards marriage expenses. Of the total creditor families, 40 had borrowed for household expenses and 31 for purchasing agricultural implements.

In 1962 in Hebbale Village of Somvarpet Taluk there were 436 families with 2,229 persons. The village, spread over 540 acres, and had 1,107 acres of agricultural lands. Drinking water is being supplied through taps since 1956. During the survey period there were 15 tap connections. All residents are Hindus belonging to 22 castes. These castes could be broadly classified into three groups namely agriculturists, traditional artisans and labourers. Of the total 436 families 294 (67%) had their income from agriculture, 1,138 persons belonging to 185 families were living as agriculturists and 433 persons of 109 families were farm labourers. Of the 185 families who were predominantly dependent on agriculture, 115 depended on agriculture, 27 on agriculture- cum-farm labour and 24 business and other subsidiary occupation. Remaining 19 families had transportation, handicrafts, hotels and other professions as the source of their income. Of the 109 farm labourers 82 worked as farm labourers, 16 had agriculture as a subsidiary profession, 11 had handicrafts, business and other works as their occupation; 23 families were hereditarily traditional artisans, their professions were their sole means of livelihood.

According to 1951 and 1961 census, the population of this village was respectively 2,124 and 2,325. The decadal population growth was 9.4 percent. During this decade the population growth rate of the state and the district respectively were 40.1 and 21.4 percent. Out of 436 families of this

village 1,062 persons of 172 families were farmers tilling their own lands, 76 persons of 13 families were farmers tilling leased lands, 433 persons of 109 families were employed as farm labourers and 530 persons of 119 families were employed on other works. While the average annual income of owner-tiller families was Rs.1,343, the tenant-tillers annual income was (for adults) Rs.275.76; the average annual income of tenant families was Rs.896, while their *per capita* income was Rs.205.50; While the annual income of farm labourers families was Rs.508.00 their *per capita* income was Rs.164.94; While the annual income of the families of artisans (handicrafts) was Rs.810.00, their *per capita* income was Rs.188.81; while the annual income per family of other traders was Rs.847.00 their *per capita* income was Rs.248.39. The annual expenditure of owner-tiller family was Rs.97.76, of tenant-tiller family was Rs.74.32 and farm and other labourer families expenditure was Rs.41.50, artisans families' expenditure was Rs.67.83, and that of other families was on an average Rs.67.21. Of the 436 families, 174 families had borrowed Rs.1,12,325.00, 44 families out of 174 families had borrowed Rs.24,120 for marriages, 24 families had borrowed Rs.20,275 for building and repairing houses, 12 families borrowed Rs.16,380 for general purposes, 51 families borrowed Rs.12,125 for repayment of old loans, 16 families had borrowed Rs.9,835 for business purposes, 3 families had borrowed Rs.9,400 for procuring cattle, 34 families had borrowed Rs.9,035 for agriculture, 14 families had borrowed Rs.8,430 for purchasing pumpsets. One family borrowed Rs.925 for education, three families borrowed Rs.900 for litigation and two families borrowed Rs.900 for house-hold expenses. The sources of their loans were mainly relations, friends, long-term loans from co-operative societies, Land Development Bank, Thakavi (Government), Canara Bank, Life Insurance Corporation and Land owners. The total loan they borrowed and the extent they borrowed from Bank (within brackets) are furnished below respectively. Small farmers owning less than three acres Rs.19,045 (Rs.16,520); those owning 3 to 10 acres Rs.54,250 (Rs.46,880); and those owning more than 10 acres Rs.52,395 (Rs.41,350); and non-agriculturists Rs.7,950 (Rs.7,575).

URBANISATION

Kodagu District stands last in the state in respect of Urbanisation. As per 1981 census 15.52 percent of the population lived in Urban areas and 84.48 percent in Rural Areas. There were 10 towns in this period, and of these nine had Municipalities and one had Town Panchayat. In 1901 this District had only five towns their names and population (in brackets) were as follows: Kodlipet (889), Kushalnagar (1,600), Madikeri (6,732), Somvarpet (1,745) and Virajpet (4,283). Between 1911 and 1951 except for Madikeri and Virajpet, others remained unclassified. In 1961, eight towns became Urban. They are Gonikoppal (2,749), Hebbale (2,325), Kodlipet (1,667), Kushalnagar (2,902), Ponnampet (2,621), Shanivarasanthe (1,391), Somvarpet (5,137) and Suntikoppa (1,306). By 1971 there were eleven towns inclusive of Uluguli (4,232). As Uluguli remained unclassified in 1981 the number of towns came down to ten.

The Urban population of Kodagu District has been growing in all decades except during the two decades between 1901 and 1921. In 1901 the Urban population was 15,249. In the next two decades it decline while in remaining decades it is seen to have registered growth. The percentage of Urban population growth from 1911 to 1981 decade-wise is noted below. (figures in brackets represented percentages). It was in 1911-9,981 (-34.5), in 1921-8,841 (- 11.4), in 1931-9,827

(11.2), in 1941-11,218 (14.2), in 1951- 16,255(44.9), in 1961-42,689 (162.6), in 1971-58,699 (37.5), and in 1981-71,663 (22.1).

Table No.1

Table showing decade -wise population growth in the three Taluk headquarters from 1901 to 1991:

Decade	Madikeri		Virajpet		Somvarpet	
	Population	Percentage	Population	Percentage	Population	Percentage
1901	6,732	-	4,283	-	1,745	-
1911	6,269	-6.88	3,712	-13.33	-	-
1921	5,675	-9.48	3,166	-14.71	-	-
1931	5,995	5.64	3,832	21.04	-	-
1941	7,112	18.63	4,106	7.15	-	-
1951	10,117	42.25	6,138	49.49	-	-
1961	14,453	42.86	8,138	32.58	5,137	*32.40
1971	19,357	33.93	9,782	20.20	6,281	22.27
1981	24,724	27.73	11,676	19.36	6,936	10.43
			(21,434)		(25,505)	
1991	28,729	16.19	13,136	12.50	7,092	2.25
			(24,010)	12.02	(25,168)	-1.32

* Average of 1901 to 1961. Figures in brackets denote total urban population.

The Urban population growth of other towns in Kodagu district except the Taluk headquarters for the period 1971 and 1981 respectively was as given below. Gonikoppal 0.29 and 95.54; Kodlipet 23.52 and 9.47; Kushalnagar 72.29 and 38.72; Ponnampet 24.57 and 33.75 Shanivarasanthe 44.00 and 34.35. These towns have been classified as Urban since 1961. From 1901 to 1971 Madikeri was classified as Group IV town. In 1981 it became a group III town. Virajpet was in group VI since 1901 and became group V in 1951 and elevated as group IV in 1981.

Table 2

The development shown by other towns of the district is given below.

Sl. No.	Names of other Towns in the district	Years				
		1901	1951	1961	1971	1981
1.	Goni Koppal	-	-	VI	VI	V
2.	Hebbale	VI	-	VI	VI	-
3.	Kodlipet	-	-	VI	VI	VI
4.	Kudumangaluru	-	-	-	-	VI
5.	Kushalnagar	VI	-	VI	V	V

Sl. No.	Names of other Towns in the district	Years				
		1901	1951	1961	1971	1981
6.	Ponnampet	-	-	VI	VI	VI
7.	Shanivarasanthé	-	-	VI	VI	VI
8.	Somvarpet	VI	-	V	V	V
9.	Suntikoppa	-	-	VI	VI	VI
10.	Uluguli	-	-	-	VI	-

Table No. 3

The number of towns with classified population groups as of 1981 in Kodagu district and their population is tabulated below.

Sl.No.	Population Group	Total No of Towns	Population		
			Male	Female	Total
1.	Above 1,00,000	-	-	-	-
2.	50,000-99,999	-	-	-	-
3.	20,000-49,999	1	12,901	11,821	24,724
4.	10,000-19,999	1	6,217	5,459	11,676
5.	5,000-9,999	3	8,443	7,577	16,020
6.	below-5,000	5	36,006	32,414	68,420

Source: Census Hand book

Table No. 4

The Urban population details in 1981 and 1991 are tabulated below.

Sl.No.	Names of Towns	Population		Percentage difference
		1981	1991 (Tentative)	
1.	Madikeri	24,724	28,729	+ 16.19
2.	Somvarpet	6,936	7,092	+ 2.25
3.	Koldipet	2,254	2,179	- 3.32
4.	Kudumangaluru	4,522	-	-
5.	Kushalnagar	6,936	9,461	+ 36.40
6.	Shanivarsanthe	2,691	3,596	+ 33.63
7.	Suntikoppa	2,166	2,848	+ 31.11
8.	Virajpet	11,676	13,136	+ 12.50
9.	Gonikoppal	5,391	5,911	+ 9.64
10.	Ponnampet	4,367	4,963	+ 13.64

Source : Socio-Economic Review of Kodagu District 1990-91.

HUMAN RESOURCES

The Human Resources namely the population and the employed man- power in a district forms the foundation for the districts economic reconstruction. The population in Kodagu district in 1901 was 1,80,607. It was 1,74,976 (-3.12) in 1911, 1,63,838 (- 6.37) in 1921, 1,63,327 (-0.3) in 1931, and 1,68,726 (+3.31) in 1941. The figures in parenthesis show the change in population percentage. The reason for the low population of the district upto 1941 was mostly due to the fact that the estate workers had migrated from the neighbouring districts of Mysore, Hassan and from the neighbouring State of Kerala, and that they used to return to their native places at the closure of the work season in the estates; also, migration of numerous educated unemployed to other places in search of employment and the pestering malaria. Positive growth in the population of the district can be seen from 1941 onwards. It was 2,29,405 (+35.96) in 1951, 3,22,829 (+40.72) in 1961, 3,78,291 (+17.18) in 1971, and 4,61,888 (+28.93) in 1981. The population growth in the decade 1971-81 was 2.61 annually and at the end of the decade 113 persons were living for square kilometer. Out of total population 15.52 percent was in Urban areas and 84.48 percent in Rural areas. Thus this district had no Urban predominance.

In Kodagu district, 70.14 percent of the total population in 1901 were employed in different industries. Statistics of the employed personnel and the number of labourer (in parenthesis) is depicted here. Administration (685); Defence (Army) (09); national and international service (05); animal husbandry (504); agriculture (1,04,911); individual employments (household) and cleaning operations (3,040); production of food, beverages and nutritious materials (5,982); procuring fuel and fodder (139); building construction (513); manufacture of boats and vehicles (60); production of supplementary products (177); manufacture of clothes and dresses (799); metal and precious stones industry (1,079); manufacture of glass, clay and stone vessels (483); production of timber, cane and leaf etc (1,355); production of medicine, wax and colours etc (17); leather work (95); commerce (248); collection and transportation (1,698); arts and crafts (828); sports (100); earthwork and public works (2,972); uncertain and unimportant enterprises (46); and independent (own) enterprises (937). On perusal of the above differentia it becomes evident that a majority of workers engaged themselves in agriculture and a minority in Defence, National and International Services. In 1921, 8,475 per 10,000 persons engaged themselves in primary occupations like forest, agriculture, fishery, mining etc. The proportion in other occupations was: Industry (495); transport (166); commerce (409); public protection (30); public administration (71); enterprises, professional occupation and handicrafts (143) and other occupations (215).

The total population in 1921 was 1,63,838. Of these 83.19 percent engaged themselves in agriculture, 4.91 in industry, 5.75 in commerce, 1.43 in professional jobs, and 4.72 in other enterprises.

In 1951, for every 10,000 persons 1)3,380 indulged in own land cultivation, 2)1,006 as tenants in other's lands 3) 1,069 as farms labourers 4) 353 non-cultivating land owners 5) 2,374 in non agricultural production, 6) 346 in commerce, 7) 92 in transport and 8) 1,400 in other services.

The self-supported and labour-oriented workers who existed in 1951 compare with their counter-parts of 1931 as follows. Those provided in parenthesis depict 1931 figures 1) Own land tillers 17,054 (25,355) and 472 (30); 2) Those tilling others lands 6,187 (1,161) and 275 (76); 3) farm labourers 10,374 (17,771) and 1,017 (219); 4) Non-cultivated landlords 2,052 (2,357) and 145 (13); 5) Non-agricultural producers 27,818 (56,264) and 3,803 (378); 6) Commerce 2,693 (2,788) and 241 (38); 7) transport 875 (1,236) and 58(25); and other services 14,107 (17,641) and 4,615 (26,321). In 1931 and 1951 the number of workers inclusive of wage earners was respectively 1,11,673 and 91,786. It is evident that in 1951 large number of workers depended on non-agricultural enterprises. The break-up show that the workers were distributed in Coffee Estates (20,357), hotels and boarding houses (1,026), carpentry (1,100), road transport (865), household works (827), rubber plantations (674), State Government employees (563), other profession (lecturers, professors) (54), and others had spread in minor proportion in various other jobs. In 1951, 39.14 percent of the total population belonging to all age groups were workers, 54.22 percent being males and 20.96 percent females.

In Kodagu district the percentage of employed personnel in 1961, 1971 and 1981 was respectively 46.93, 40.40 and 45.18 and numbering respectively 1,51,506, 1,52,838 and 2,08,700. Part-time workers of 34,841 were excluded in the 1981 total population. Sex-wise proportion of workers compared to the total population was 57.19 males and 24.17 females in 1961; 55.34 males and 23.98 females in 1971; 58.86 males and 30.54 females in 1981. According to tentative figures of 1991 census the total employed persons were 2,27,068. Of them the number of persons employed in primary jobs were 2,17,708 and in general employment 9,360. Of the total employed personnel 1,98,834 were in rural areas and the remaining 28,234 were in urban areas. Of the total employees in primary jobs 1,89,742 persons were in rural areas and 27,996 were in urban areas. Of the general employees 9,092 were in rural areas and 268 were in urban areas.

The distribution pattern of the workers in urban and rural areas of the district was (percentage of total workers) respectively. 10.9 and 89.1 in 1961; 13.6 and 86.4 in 1971; and 12.32 and 87.68 in 1981. As per tentative figures of 1991 census (1981 statistics in parenthesis), percentage of tillers 20.07 (23.31), agricultural labourers 15.18 (25.82), manufacturers of home appliances 0.93 (0.99) and other labourers 63.82 (59.88). The distribution of non-workers in the urban and rural areas (as per relevant population in percent) were respectively 38.77 and 48.17 in 1961, 35.35 and 41.3 in 1971 and 35.87 and 46.89 in 1981.

In the decades following 1951 the increase in the workers population in the district was as below: In the decade 1951-61 it was 68.71; 1961-71 0.88; and 1971-81 36.55. The percentage of agriculturists and farm labourers decreased in the decade 1951-61 to an extent of 25.7 and 57.2 respectively. But in the decade 1971-81 the agriculturists increased by 35.1 percent while that of farmers increased by 9.9 percent. The table below shows the number of workers in different professions in the decades 1961 to 1981, the figures in brackets depict their percentage of total number of workers.

Table No. 5

Workers in Different professions 1971 to 1981

Professions	1961	1971	1981	Percentage Change 1961-1981
1	2	3	4	5
Agriculturists	48,433 (31.96)	35,996 (23.55)	48,643 (23.31)	0.43
Farm labourers	19,115 (12.62)	30,053 (19.66)	33,024 (15.82)	72.76
Mines, Animal husbandry, Forest, etc.	45,027 (29.72)	44,831 (29.33)	75,754 (36.30)	68.24
Production excluding cottage Industries	4,893 (3.23)	4,925 (3.22)	9,128 (4.37)	86.55
Cottage Industries	2,832 (1.87)	2,484 (1.63)	2,071 (0.99)	-26.87
Construction	4,076 (2.69)	4,963 (3.35)	5,214 (2.50)	27.92
Trade and Commerce	5,088 (3.36)	8,689 (5.69)	12,382 (5.93)	143.36
Transport, ware-house and communications	1,426 (0.94)	2,824 (1.85)	5,291 (2.54)	271.04
Other Services	20,616 (13.61)	18,073 (11.82)	17,193 (8.24)	-16.60
Total	1,51,526	1,52,838	2,08,700	

* Note: 20 percent sample survey based on of 1981

It has not been possible to furnish the data regarding the migrated workers who were in the district in 1981. The absence of these workers in their native places is the main reason for this. There were 1,99,505 migrated workers in the district in 1981. Of them 86,054 were native of the district by birth, 56,657 were from different districts of the State while 54,638 were from different states of the country and 2,156 were foreigners. In 1981 in respect of number of immigrant labourers Dakshina Kannada district stood first followed by Mysore, Hassan and Bangalore districts. The number of immigrant labourers in 1961 and 1971 were 99,814 and 91,250 respectively and formed 65.9 and 59.7 percent of total labourers. The number of immigrant workers in 1971 is hereby tabulated duly noting their number in 1961 in peranthises.

Those who immigrated from within the district numbered 43,365 (33,846); from other districts of the state 21,265 (26,674); from other states of the country 26,345 (39,176) and from other countries 275 (118). It is observed that the number of women who migrated has substantially decreased from 1961 to 1971. It was 36,585 in 1961 and 28,361 in 1971. In the same period the number of migrated men workers is seen to vary marginally. The number of migrated men was

63,229 in 1961 and it dropped slightly to 62,885 in 1971. The table No. 6 below shows particulars of men and women labourers who migrated in and into Kodagu district from rural and urban areas.

Table No 6

Sl. No.	Immigration Particulars		1961		1971		
			M	F	M	F	
1	2	3	4	5	6		
1.	Those from different parts of the district	R	15,605	16,252	20,365	13,930	
		U	1,335	654	6,925	1,895	
2.	From different district in the State	R	14,109	8,601	8,735	4,080	
		U	2,962	1,002	5,795	2,330	
3.	From different States in the Country	R	24,537	8,929	11,740	3,730	
		U	4,573	1,137	7,330	2,015	
4.	From different countries	R	108	10	270	05	
		U	-	-	-	-	

In addition to the above figures 1,725 men and 65 women in 1971 have not have been identified as to whether they are from Rural areas or Urban areas.

Of the immigrant workers in the district, the number of those from neighbouring States of Kerala and Tamil Nadu are seen to be predominant. In 1961, 21,181 men and 5,062 women were from Kerala while 7,754 men and 4,939 women were from Tamilnadu. The corresponding figures for 1971 are 13,935 men and 3,010 women from Kerala and 5,825 men and 310 women from Tamilnadu. The immigrated labourers from other states, and from different part of the district itself have been engaged in mines stone quarries, animal husbandry, fishery, forest, horticulture etc. The number of workers engaged in livelyhood occupation in 1961 and 1971 are respectively 38,166 and 33,440. This distribution was 18,492 and 9,886 in farming; 12,594 and 15,579 in farm labour; 6,203 and 5,995 in cottage industries and 15,581 and 12,890 in other serives (A detailed tabulation Table No.7 showing the trends of the immigrated workers is furnished below)

Table No.7

Table showing the trend of distribution of immigrated workers in each Taluk in accordance with the livelyhood classification in the district in 1961, 1971 and 1981.

Sl. Occupation	Madikeri			Somvarpet			Virajpet		
	1961	1971	1981	1961	1971	1981	1961	1971	1981
1. Agriculturists	14,966 (42.76)	10,219 (30.35)	13,741 (27.83)	15,257 (29.11)	12,552 (21.63)	16,396 (22.89)	18,210 (28.41)	13,225 (21.63)	18,506 (21.10)
2. Farm labourers	3,244 (9.27)	5,218 (15.49)	6,754 (13.68)	4,806 (9.17)	7,566 (13.06)	7,162 (10.00)	11,065 (17.26)	17,269 (28.24)	19,108 (21.79)

	1961	1971	1981	1961	1971	1981	1961	1971	1981
3. Cottage Industries	754 (2.16)	815 (2.42)	618 (1.25)	1,063 (2.03)	792 (1.37)	697 (0.97)	1,015 (1.59)	877 (1.43)	756 (0.86)
4. Other Workers	16,033 (45.81)	17,423 (51.74)	28,260 (57.24)	31,288 (59.69)	37,106 (63.96)	47,367 (66.14)	33,805 (52.74)	29,776 (48.70)	49,335 (56.25)
Total Workers	34,997 (100.00)	33,675 (100.00)	49,373 (100.00)	52,414 (100.00)	58,016 (100.00)	71,622 (100.00)	64,095 (100.00)	61,147 (100.00)	87,705 (100.00)

Note: The above figures exclude part time workers numbering 4,897 in Madikeri Taluk, 2,827 in Somvarpet Taluk and 1,928 in Virajpet Taluk.

AGRICULTURE LAND AND CROPS

The geographical area of Kodagu district based on Village accounts in 1990-91 was 4,10,775 ha. and of these, forests occupied 1,34,597 ha. 31,010 ha. were fallow lands, 23,691 ha. were non-agricultural lands, 17,804 ha. grasslands, 38,878 ha orchards of different trees, 11,915 uncultivable lands and 5,691 ha. other waste land. In the same year 1,47,680 ha. was net sown area in which 3,038 ha was used for raising more than one crop and have the gross area was 1,50,727 ha..

Food crops were grown in 73,000 ha of the sown area and in 78,000 ha other crops were grown. The particulars of crops grown with their areas in the present year (1990-91) and preceding year is furnished herewith in hectares. Figures for 1989-90 are shown in brackets: Paddy 45,269 (45,565), ragi 1,393 (1,210), pulses 966 (697), sugar cane 22(8), chillies 375 (381), cardamum 13,463 (13,768), black pepper 1,297 (1,274), other spices 93 (92), arecanut 360 (856), fruits 5,574 (5,883), cashew 1,694 (1,694), vegetables 2,294 (2,335), oil seeds 93 (175), cotton 12 (12), coffee 74,272 (74,057), tea 470 (470), tobacco 194 (86), cocoa 55(50), mulberry 140 (137), rubber 1,935 (1,935) and fodder 30(30).

Of the high-yielding crops of the district in 1990-91, paddy was grown in 26,000 ha, maize in 1,200 ha, ragi in 11,000 ha and other crops in 1,200 ha. In 1988-89, paddy was cultivated in 5,942 ha in Madikeri taluk, 8,139 ha in Somvarpet taluk, and 9,996 ha in Virajpet taluk. Maize was cultivated in only two taluks, 1,060 ha in Somvarpet and 8 ha in Virajpet taluk. Areas congenial for cultivation of high-yielding variety of ragi and cotton were found only in Somvarpet taluk and accounted for 2,478 ha and 14 ha respectively. Paddy was grown in 43,135 ha ragi in 1,150 ha, maize in 922 ha, pulses in 342 ha, oilseeds in 113 ha and tobacco in 86 ha, while plantation crops like coffee cardamum, black pepper, orange, coconut and rubber were grown in 97,589 ha and 8,356 ha. If cultivable land remain uncultivated and land unfit for cultivation formed 20,388 hectare. Yield per hectare was seen as follows: paddy 2,300 Kg, ragi 1,200 Kg, maize 4,000 Kg, pulses 0,800 Kg oilseeds, groundnut 150 Kg, and tobacco 0.650 Kg. In the areas programme for high-yielding seeds, transplantation of seedling of appropriate age, application of fertilisers based on soil testing, application of weed killers and application of water in a satisfactory manner. It

would be profitable to grow paddy in the irrigated areas in khariff and groundnuts in rabi season, rain-fed Paddy and ragi in heavy rainfall areas, and pulses and mulberry in dry lands. Integrated Paddy Development Programme has been adopted in the district since last three years and higher yield in paddy crop has been observed as a result of supply of agricultural implements at subsidised rates and also technical know-how to the farmers.

The prominent agricultural products of the district are paddy, ragi, maize, pulses, oil seeds and tobacco. Paddy and pulses are cultivated in large scale in all the taluks, and high-yielding ragi in Madikeri taluk, oil seeds and tobacco in Somvarpet taluk account for large scale productions. The district is noted for production of fruit crops like orange, plantains (banana), mango, guava etc. The fruit-growing area and the quantity of fruit production in 1987-88 is hereby listed. The area of fruit production is given in hectares and the quantity of production is given in tonnes in brackets as follows: Banana 1974 (17,462), orange 19,110 (1,29,616), guava 296 (1,622) and others 673 (5,250).

LAND HOLDINGS

As per *The Report on the Findings of Agricultural Census 1980-81* there were 42,864 agricultural holders holding 1,73,982 hectares of land in the district. Out of the total holdings 1,64,095 hectares land was in the hands of 42,281 individual holders, 3,484 hectares was in the hands of 353 joint holders and 6,403 hectares was in the hands of 230 institutional holders. Out of the 42,864 total holders, 1,411 holders belonged to the Scheduled Castes holding 1,786 hectares of land, 313 holders belonged to the Scheduled Tribes holding 376 hectares of land, and 41,140 holders belonged to other castes, holding 1,71,820 hectares of land. As per the report in the Third Five-Year Plan of the district, the average holding of land in the district was 6.1 acres. It was 10 acres to 200 acres in Virajpet Taluk. But the fragmented land was also plenty in the taluk. Agricultural Census of 1985-86 revealed that there were 55,000 agricultural holders holding 1,80,000 hectares of land in the district. Out of the 55,000 holders, 2,000 holders belonged to the Scheduled Castes, 1,000 holders to the Scheduled Tribes and other holders numbered 52,000. Out of the total 1,80,000 hectares of land, 2,000 ha. (0.2%) belonged to Scheduled Castes, 1,000 ha to Scheduled Tribes and others held 1,77,000 ha.

The distribution of land holdings in the District during 1980-81 and 1985-86 respectively were as follows: (Land holdings are given 000 ha and percentage of changes are in brackets). Holdings of Scheduled Castes 1.27, and 0.82 (-35.4) and holdings of Scheduled Tribes 1.21 and 1.23 (+1.7) respectively. Category-wise land holders of the periods mentioned above respectively are given as follows: (Number of holders are given in brackets and percentage of changes are given after the brackets). Individual holders 42,000 (98.6) and 55,000 (99.1) 29.6. Total figures of joint holders and institutional holders are not available, but the percentage of them are given respectively for the period mentioned above. Joint holders (0.8) and (0.5) -23.5. Institutional holders (0.6) and (0.4) -5.2. In the same period the extent of holdings is furnished in 000 ha. The extent of percentage land holding have been noted in brackets followed by the percentage variation. The individual land holdings were 164 (94.3), 174 (96.5), 5.8. The joint land holdings were 4(2.0), 2(5.1), -42.3 and institutional land holdings were 6(3.7), 4(2.4) -32.9.

Table No. 8

Statement showing the area-wise and category-wise number and extent of operational holdings.

Size Class	Total holdings		Individual holdings		Joint holdings		Institutional holdings	
	Nos.	Area in Ha	Nos.	Area in Ha	Nos.	Area in Ha	Nos.	Area in Ha
Upto 0.49	5,298	1,438	5,182	1,403	78	26	38	9
0.50 - 0.99	6,090	4,577	6,001	4,510	60	44	29	23
1.00 - 1.99	9,630	13,791	9,540	13,659	56	82	34	50
2.00 - 2.99	5,864	4,284	5,813	14,161	35	83	16	40
3.00 - 3.99	3,806	13,138	3,756	12,965	31	107	19	66
4.00 - 4.49	2,935	13,001	2,907	12,877	10	45	18	79
5.00 - 7.99	3,794	23,119	3,760	22,916	20	124	14	79
7.50 - 9.99	1,979	17,110	1,956	16,914	13	111	10	85
10.00 - 19.99	2,578	35,030	2,544	34,542	23	331	11	157
20.00 - 29.99	531	12,645	576	12,286	7	162	8	197
30.00 - 39.99	137	4,668	131	4,472	4	134	2	62
40.00 - 49.99	59	2,597	57	2,503	1	45	1	49
50.00 - & above	163	18,584	118	10,887	15	2,190	30	5,507
Total	42,864	1,73,982	42,281	1,64,095	353	3,484	230	6,403

Source : Agricultural Census 1980-81.

Table No.9

The table below depicts the extent of land holdings in 1970-71, 1976-77, 1980-81 and 1985-86.

Year	No. of land holders	Extent (area) of holdings	Percentage of land holders	Percentage of Extent	Variation of land holder percent	Variation of area percent
	No.	No.	No.	Ha		
1970-71	36,786	1,36,258	1.04	1.20	10.01	7.65
1975-76	40,467	1,46,683	1.06	1.29	16.52	27.67
1980-81	42,864	1,73,982	1.00	1.48	5.92	18.61
1985-86	55,000	1,80,000	1.1	1.5	29.00	3.4

Source: Agricultural Census 1980-81 & 1985-86.

PROMINENT COMMERCIAL CROPS

Orange has been reknown among the horticultural products in Kodagu district and accounted for 5,061 ha in 1989-90. It was 5,112 ha in 1988-89. The reduction due to the disease called "Bitter Catch" (*bevu hidiyuvudu*) which afflicted orange crops. The commercial crops of the district consists of cardamum, pepper, cashew, rubber, arecanut and coconut. The area under cardamum in 1990-91 was 13,468 (13,768) ha, pepper 1,297 (1,274) ha, Cashew 1,694 (1,694) ha, Rubber 1,935 (1,935) ha, Arecanut 360 (856) ha and Coconut 665 ha. The figures in brackets denote 1989-90 data.

Cardamum

In recent years cardamum is facing number of problems. Decline in rainfall is one reason while *katte* disease is another. The Cardamum growers have to also compete with the production from Gwatemala (Central America) in the world market. Consequently while some of the cardamum growers indulged in diversifications by resorting to growing other crops, many others have strived to produce cardamum itself to a greater extent by resorting to scientific methods, which incidentally has started a ray of hope among the growers. Though cardamum cannot compete in the international market its export is still surviving because of Saudi Arabia which has been traditionally importing it from India.

The Cardamum growing states in India are Kerala, Karnataka and Tamil Nadu. The production of Cardamum in 1980-81 was 3,100 tonnes in Kerala, 1,000 tonnes in Karnataka and 300 tonnes in Tamil Nadu.

Kodagu district accounted for 20 percent of total production of cardamum in the country. The price of cardamum was on an average Rs.18 per kg in 1960-61. In 1975-76 it was Rs.100 per kg and in 1978-79 it exceeded Rs.203 per kg. In 1985-86, the Government of India dissolved the Candamum Board and brought this crop under the perview of the Spices Board.

Coffee is the most impertant commercial crop of the district. It was being grown in 38,886 acres in 1943-44 and it increased to 40,938 by 1945-46. It was 86,775 acres in 1962-63. Cardamum registered its increase in average from 3,911 acres in 1945-46 to 14,419 acres in 1960-61. Tea, pepper, arecanut and cashew etc. are being grown in some places in the district, though not extensively to sufficient extent. Arecanut is seen in smaller extent in all parts of the district including the South Kanara district border. Orange is grown extensively in the district. Its area was 28,153 acres in 1962-63.

Coffee Plantations

Coffee which comes under plantation crop is a very important commercial crop of Kodagu district.

The list of 134 European Coffee Estates which extended prior to 1870 was furnished by *Richter*. Of these Glen Coorg with 3,012 acres and Coorg Coffee Company with 2,025 acres were major plantations. The oldest and largest coffee plantation in Coorg in 1870 was Karnataka Coffee Company Ltd., Its area was 3,000 acres. One Channabasappa was the first to start Indian Coffee Plantation near Somvarpet. His Coffee estates were at Bhoothnakadu, Kusbur and Suntikoppa. Subsequently these estates were further developed by Mrs. Sakamma who was owner of Sakamma Coffee Works Bangalore. The Mamphis Coffee Company is also one of the large coffee estates in Kodagu. The Palethodu, The Faith, Vivarakadu and the Hoovina Kadu Coffee estates have contributed for the increase of coffee trade in Kodagu. Large Coffee estates were started in Brahmagiri of South Kodagu. The Hope, Horur and the Jamboor estates were famous even in those days.

The incidence of a number of problems connected with the coffee industry resulted in uniting the coffee planters and their deciding to start The Consolidated Coffee Estates Ltd., which was established in 1943 in Pollibetta. This was a joint finance venture. This Company was not only running the Kushalnagar Coffee works and Hunsur Coffee Works but also functioning as a contact agency for coffee growing areas and coffee industry. This firm is not only acting as an agency for sale of fertilizers but also provided general requirements of coffee estates. The shareholders of this Company were the coffee planters of the Mysore State (now Karnataka) and Nallur, Jamboor and Margalli; and Kotebetta Coffee estates were directly managed by this Company.

The Coffee growing area is increasing in the district every year. In 1989-90 the area of coffee estates was 74,057 ha. It was 73,737 ha in 1988-89. Of which 15,760 ha were in Madikeri Taluk, 23,497 ha were in Somvarpet taluk and 34,800 ha were in Virajpet Taluk. The total area in 1990-91 was 74,272 ha.

Siddapura, Chetnalli, and Madapara areas in Kodagu district are famous for coffee plantations. The failure of blossom showers in any year affect the entire year's production of coffee. Even heavy rains on the very next day of blossom causes extensive damage to crops. Excessive or difficient rainfall causes variation in the yield of coffee crops. To overcome such contingencies those planters who have facilities and finance resort to sprinklers in the blossom season. The capital invested on this coffee industry by the planters are very heavy. Pesticides, fertilisers, copper sulphate which are essential inputs have become dearer and in last ten years they have become costlier 3 to 4 times. There has been substantial raise in labour wages. As the price paid by Coffee Board to the planters is not related to the cost of production there is discontentment in coffee planters as is evident from statements made by many of them. As a result of insufficient supply of copper sulphate and fertilizers many estates have lost their production capacity. In 1989 Kodagu was in Second Place in coffee growing areas in the state with 49,630 ha.

The British laid the foundation for consolidated administration in 1942 by bringing out legislation regulating marketing and distribution of coffee. Though it was meant to be a tentative measure many opine that this was continued mainly because of pressures from coffee planters. It is also possible that this was a result of finding that centralising the trading in coffee to be of advantageous compared to selling it through the intermediaries. The Central Government consolidated its hold on the Coffee Board after Independence in 1955 by bringing in some

legislative amendments. Now the Government of India secured full powers in appointment of not only the officials but also the members and the chairman of the Coffee Board. In the light of this centralisation of power many coffee planters have expressed that their confidence in the Coffee Board has declined. Serious allegation have been levelled against the Board by the Planters Association and many co-operative Institutions. As per the existing law, the entire production of coffee has to be deposited with the Coffee Board. One of the members of the Coffee Board itself has taken this law tantamount to breach of fundamental rights. Government itself appoints 33 members to the Board. Of these ten are stated to be representatives of Coffee planters. It is also alleged that these 10 members mostly comprise of proprietors or planters of coffee curing works. Several planters opine that this has resulted in obstruction to work on behalf planters. They have alleged that several decisions taken by the Coffee Board are against the interest of the planters, thus benefiting the owners of the Coffee Curing Work. A study conducted by the Indian Institute of Management, Calcutta has revealed that the Board lacks in efficiency since the Board has not invested any thing on its own in coffee industry. It concludes that since the Board is at liberty to release payment to the growers the delay in releasing payment to planters has resulted in many of them approaching Banks for loans at high rates of interest.

Suchethana Swarupa, Journalist is of the opinion that the inactivity on the part of the Board due to negligence of coffee growers and the planters. According to another opinion many of the planters are not feeling the pinch as they are not strictly abiding by the Minimum Wages Act, and hence they have not taken this problem seriously. Though the Coffee planters started their agitation in the decade 1980-90, it started in Kodagu district in late 1990, Only after an action committee of the coffee planters started. Coffee transportation was stalled for a fortnight in response to a call given by this committee in 1991. For certain ideological reasons a federation of growers was formulated against the planters' association. It is said that the inactivity of the federation was the sole reason for the formation of the action committee (for fighting). Their significant demand is that the cost of production should be decided in a scientific manner every year and the same should be paid to growers in one instalment. Certain modifications appear to have resulted as a result of the protests by this committee. It appears that Coffee Board also has revised its stand to certain extent and the state Government has also reduced the burden of tax to some extent. However it is felt that these measures do not constitute a permanent solution to the grievances of the coffee planters.

Table No. 10

The area of coffee plantations in Kodagu along with the corresponding area in the state and the country as in 1986-87.

Area	Area of Arabica Ha.	Area of Robasta Ha.	Total Area Ha.
India	1,23,315	1,18,886	2,42,201
Karnataka	79,899	46,464	1,26,363
Kodagu	25,643	34,432	60,075

Table No 11

The production of coffee from 1985-86 to 1989-90 in the district with the break-up of the two varieties are tabulated below:

Year	Production in Metric tonnes		
	Arabica	Robasta	Total
1985-86	22,180	17,320	39,410
1986-87	25,400	44,000	69,400
1987-88	14,350	20,650	35,000
1988-89	34,000	40,000	74,000
1989-90	20,000	28,500	48,500

Source: Coffee Board, Madikeri

The Coffee Board has been procuring coffee seeds from growers at a low rate and selling it to the consumers at a much higher rates. The district's coffee planters united to resist such acts as narrated above. Their important demands include that the Central Government should rationalise the purchase price, that the State Government should reduce the purchase price, that the State Government should reduce the purchase tax (this has been reduced from 13 percent to 7.8 percent in 1991). Another demand is that curing expenses of coffee should be procured in second stage instead of the first stage. This has been accepted by the Coffee Board. As per the revised rates fixed by the Central Government the rate of procurement has been increased in the current year (1992-93) by 11.93 percent for Arabica and 10.91 percent for Robasta since last year. The devaluation of the rupee possibly results in not only increased exports but also in obtaining increased rates.

Galibeedu Tea Project

Galibeedu is a small village located at a distance of five kilometers from Madikeri. In 1979, the Forest Department has planted on experimental measure tea plants in 35 acres on the barren mounds. The tea grew luxuriously as a result of the efforts in four years. However lack of curing arrangements have rendered the tea plants useless. The Karnataka Forest Development Corporation initiated a major plan for growing tea, as mentioned by E.V.Satyanarayana in "Tea Plantation in Galibeedu." after detailed inspection of the area in 1985. The Forest Department handed over 2,100 ha C & D grade lands in its possession to the Corporation. The Corporation decided to grow tea in 1,800 ha by investing Rs.21 crores. This plan is expected to get Rs.15,000 per hectare as aid from the Tea Board as well as Rs.8.55 crores from NABARD. NABARD has laid down a condition that in the first stage tea should be grown only in 800 ha and that the scheme should be completed in five years. The responsibility of tea leaves processing has to be also shouldered by the corporation. It is expected that this would cost Rs. 2 crores and the Tea Board would be bearing half of this expenditure. This scheme is known as "KANTEA" (Karnataka Tea). Since inception of this scheme tea has been grown in 60 ha at a cost of Rs. 30 lakhs. Development of labour colony, roads, tea nursery raising 20 lakh tea plants etc have all been developed. As NABARD had prescribed that tea should be grown in 800 ha., the State Government has ordered that the Forest

Development Corporation should formulate a Revised Plan in July 1989. As the revised plan expenditure exceeded the 1985 planed expenditure (Rs.961 lakhs) by Rs.644 Lakhs, it has drawn the criticism of the Public Undertakings Committee of Legislature, so that the Corporation has to obtain the necessary consent of the State Government.

The State Cabinet while approving this scheme has stipulated that this should be taken up as a joint venture with participation of private agencies as partners. As per the rules formulated by the Government, the share of the private institution has to be 49 percent and the remaining 51 percent shall be invested by the Corporation. It is stipulated that a majority of the Directors should be from the Corporation. It is also stipulated that the Chairman of this Joint Sector Venture should be the Managing Director of the Corporation. Rao Bahadoor Takoor Co (R.B.T) which has consented for the above rules has been selected by Central Government as they are considered as experts in this field. But in the face of opposition of the Tea Board on the decision on participation of this company a decision on collaboration is yet to be taken.

This project which is proposed to be taken up in the forest area, needs clearance from the Department of Environment and experts. The environmental enthusiasts of the district have expressed their opposition to this project. Many institutions and organisations have been pressing for dropping this project on the plea that this would provide opportunity to private enterprenuers to earn money at public cost. However this project would provide employment to local unemployed, the public in the district are prepared to welcome this project only if the Government itself handles it without private partners. One view holds that this project should be stalled in view of the fact that minimum of one labourer per acre is needed to maintain a tea estate and the several thousands of labourers and their families would invade on the forest wealth of the district to meet their daily needs of fuel and they are afraid that this would denude the forest wealth of the district. It is also feared that there would be increase in the migration of outsiders into the district.

In 1915 a British Company by name Glen Lorn had started tea industry in Kodagu. In 1943 The Coorg Tea Company came into being. As per a latest observation there are 1,870 ha private Tea Estates in Kodagu and Chickmagalur districts. In 1989-90 and 1990-91 there were 470 ha. of Tea estates in the district.

Orange Cultivation

Kodagu Orange is renowned since long. The main reason for this is the compatibility of the districts soils. Tithimathi, Balele, Kanoor Kutta, etc of South Kodagu have special soil varieties which nurture orange of special quality and there is great demand for the fruits of these areas. Orange can be grown in areas where annual rainfall ranges from 30 to 120 inches. As the average annual rainfall in Kodagu exceeds 2,300 mm both coffee and orange can be grown here in abundance. Like coffee orange also is an item which was brought to India from outside. It came from Indo-China according to some. In 1988-89 orange was cultivated in 5,113 ha in the district. While coffee, cardamum, and pepper have good marketing facilities and are procuring good rates they are progressing, orange which has been deprived of these facilities is declining. Orange has not been given concession in taxes as it is considering a plantation crop like coffee and cardamum. The disease which is pestering it in recent years is also responsible for decline in its development.

With the intention of providing suitable marketing facilities to orange a Britisher founded the Cobrg Orange Growers Society in 1942 and obtained necessary permission from the Government to utilise hundreds of acres of forest lands in Tithimathi area for orange research. In 1962 this Co-operative Society imported machinery and equipments worth Rs. 80 lakhs from Europe and started fruit processing plants at Gonikoppal in South Kodagu and Kushalnagar in North Kodagu but they are remaining idle now. The inaction of the Orange Growers' Society has resulted in these units not functioning fully and a warehouse valued at Rs.1 1/2 crores at Bangalore became useless. The assurance of the Government that it would subscribe the shares being raised by the Society by an equal amount, has spurred the society into action and it intends to Rs.10 lakhs out of its share of Rs.25 lakhs for re-starting the Gonikoppal Unit of the fruit processing plant.

With an intention of rejuvenating orange again as a commercial crop of the district and to revive its lost glory the State Government founded the Plantation Crop Research Centre at Chettalli. This institution which was being run by the State Government is now in the hands of Central Government. Its employees are from other states. As such the orange growers feel that this institution has not been useful to them since it has not been conducting any research regarding orange.

Irrigation Facility

As a measure of providing increased irrigation in the district the Lakshmana Theertha dam and its canals were included in the Second Five Year Plan. In addition the Harangi Project was commenced in the Third Five Year Plan. In the days of the British Government, the state administration had proposals for utilising the waters of the Lakshmana Theertha for growing paddy. Though this was planned in 1893, due to lack of finance this project had not materialised. Its estimated cost of 1942 was revised in 1945. The project envisaged construction of dams on the Lakshmana Theertha and Rama Theertha and digging canals. It was planned to provide irrigation to about 3,167 acres during the Second and Third five year plans. Rs.8.51 lakhs were spent on this project in the Second Five Year Plan and Rs.11.74 Lakhs were provided in the Third Plan. As Kodagu district is full of hills and mounds well irrigation is not feasible here. The minor tanks in the district are like ponds and are unable to provide sufficient water for paddy cultivation. Still, as a result of irrigation facilities provided by State Government 9,500 acres were irrigated in the district in 1961-62. The total area irrigated under the Government and private canals, tanks, wells etc. was 15,000 acres. By about 1965 this increased to 21,000 acres as a result of improvisation of minor irrigation.

A review of the agricultural development programmes during the first two Five Year Plans in the district reveal increase in the area of food production as well as higher yields. These Plans resulted in increased production of food grains to an extent of 1,400 tons as about 12,000 acres of additional lands were brought into the fold of irrigation. In order to develop water logged lands many drainage and fertility conservation programmes have been adopted. In 1962-63 the area under paddy was 1,12,541 acres and had a capacity of production of 2,500 pounds per acre. Attempts were made for obtaining increased yields by adopting Japanese and Chinese model of irrigation. Improved methods of cultivations were incorporated. To implement immediate and long- term programmes they have adopted mainly irrigation, animal husbandry, use of superior

variety of seeds, rural financing, assessment of crops, utilisation of fertilisers, consolidation of holding, establishment of co-operative societies, improvement of cottage industries etc.

In 1988-89 there were 1,345 tanks in the district, of which 1,322 were irrigating less than 40 ha of lands, 23 tanks were irrigating more than 40 ha, each. Irrigation was supported by 123 wells, three canals totalling 60 km in length, two anicuts (Harangi and Chiklihole) in the district. The two anicuts are in Somvarpet taluk and each anicut has planned to provide water to 21 villages. They have already provided irrigation facilities to 21 and 8 villages respectively. The cost of construction of these two projects was estimated as Rs.12,200 lakhs and Rs. 1,200 lakhs respectively, and by 1988-89 Rs. 10,051 lakhs and Rs.534 lakhs were spent. By end of March 1989 the Harangi anicut was capable of irrigating 2001.96 ha while Chiklihole anicut could irrigate 436 ha. Harangi had provided irrigation to its planned area in full while Chiklihole provided irrigation facility to 431.22 ha.. In 1988-89 a net area of 4,096 ha. of lands in the district had been supplied with water. Of them 2,667 ha were being supplied through canals while 206 ha by tanks, 25 ha by wells and 1,198 ha. lands were being fed water by other sources. The total area of lands irrigated in the district was 5,728 ha. consisting of 4,611 ha., producing food crops, 519 ha. oil seeds and 598 ha other crops.

The number of land holders and the net areas which had irrigation facilities in 1985-86 is furnished in accordance with the different sizes of holding in the following table

Table No. 12

Size of holding	Full Irrigation (wet)		Semi Irrigation		Total Irrigation	
	Nos.	Area (ha.)	Nos.	Area (ha.)	Nos.	Area(ha.)
Less than 0.5	45	10	3	-	48	10
0.5 - 1.0	173	144	17	9	190	123
1.0 - 2.0	471	642	119	94	590	736
2.0 - 3.0	186	343	132	160	318	503
3.0 - 4.0	87	195	107	190	194	385
4.0 - 5.0	35	124	64	136	99	260
5.0 - 10.0	38	188	50	115	88	303
10.0 - 20.0	6	45	22	84	28	129
20.0 - 30.0	7	82	35	225	42	307
30.0 - 40.0	0	0	12	55	12	55
40.0 - 50.0	-	-	-	-	-	-
Above 50.0	-	-	-	-	-	-
Total	1048	1743	561	1068	1609	2811

Source: Bureau of Economics and Statistics, Bangalore.

In 1990-91 a total of 5,885 ha lands were under irrigation, of these 4,230 ha (71.87 percent) were by canals 185 ha (3.14 percent) by tanks, 2.3 ha (0.40 percent) by wells, 12 ha (0.20 percent) by lift irrigation and 135 ha (24.39 percent) had irrigation facilities from other sources. Since the

irrigated area in 1989-90 was 5,636 ha, the increase in 1990-91 was 3.5 percent. Of the total irrigated area, paddy was grown in 3,683 ha, ragi in 154 ha, *alasan* in 906 ha and other crops in the remaining area.

Sericulture

The climate and soils of Kodagu district are best suited for silk production. The Sericulture Department has declared Kodagu as Bivoltine Seed production district as the production of Bivoltine seeds here is twice that of Kolar and Mysore district. As this district does not have a cocoon market the Bivoltine cocoons are being sold in Hassan cocoon processing centre. As there are plenty of trees in the district which are required for production of Tassar Silk and as the Western Ghats Development Programme, have extended into district, it is felt that it would be profitable to involve this district in the production of Tassar Silk.

The training center at the Silk Farm, Kudige in Somvarpet taluk, has necessary hostel facilities and training personnel and has been providing training to farmers. In accordance with the World Bank Project sanction has been accorded for establishing Technical Assistance Centres and Chawki rearing centres at the rate of one in each taluk of the district. Plans are afoot to establish a Silk Cocoon Marketing Centre either at Gonikopal of Virajpet taluk or Kushalnagar of Somvarpet taluk.

Mulberry was cultivated in 653 ha of land in 1990-91 in the district. Mulberry cultivation is concentrated in Somvarpet taluk as its climate is congenial for its growth. In recent years mulberry cultivation has spread into other taluks also. There are 5 Chawki rearing centres in the district and have produced 84 tons of silk cocoons in 1990-91.

Table No. 13

The data on sericulture existing in the district at the end of March 1991 is tabulated below:

Particulars	Somvarpet Taluk	Madikeri Taluk	Virajpet Taluk	Total Area
Area under Mulberry cultivation (Acr)	1,093.00	60.20	36.00	1,189.20
No. of villages engaged in Sericulture	200	30	15	245
No. of persons who are involved in Sericulture	1,332	40	36	1,408
No. of SC & ST engaged in Sericulture	50 (45)	1 (2)	Nil (22)	56 (69)
No. of layings	1,85,511	4,804	1,466	1,91,781
Production of cocoons (M.T.)	75.00	8.60	0.86	78.46

Source : Office of Asst. Director of Sericulture, Madikeri.

It has been planned to extend mulberry cultivation in the district to 1,700 acres in 1990-91, 2,400 acres in 1991-92, 3,300 acres in 1992-93 and 5,100 acres in 1994-95.

Apiculture

Under development programmes the State Government has provided facilities for bee-keeping by way of supply of beehives, financial assistance for other equipments and training facilities with stipend. A certificate training course has also been established for those who are interested to undertake bee-keeping in medium and large scale. There are two major bee-keeping co-operative societies functioning the district.

They are: 1) The Coorg Progressive Bee-keepers Co-operative Society (Bhagamandala) which has extended its operations to the north of the Cauvery river in Madikeri and Somvarpet taluks, and (2) The Coorg Honey and Wax Producers Co-operative Society Ltd., (Virajpet), which has extended its operation in all the three taluks to the South of Cauvery River. The bee-keeping development programmes are aided by co-operative societies with the assistance of Khadi and Village Industries Commission. This assistance is extended by the State Khadi and Village Industries Board. These co-operative Societies procure the honey from not only the bee keeper members but also others who are non-members. The societies purchased about 50 percent of honey from bee-keepers and remaining honey is sold to private entrepreneurs. The honey received by the Co-operative Societies is tested in the Agmark testing centre at Madikeri and filled into bottles which are 'Agmark' labelled and released to markets.

The main bi-product in the bee-keeping industry is the bee wax and its production amounts to about 2,000 kgs in the district. This bee wax is collected by the two Co-operative Societies and are used for preparing the beehive production sheets. As a result the bees consume less honey themselves thus making it possible to collect more honey. These artificial hives can also be used for 3-4 years. The bee-keepers can thus collect 25 to 30 percent more honey. The other bi-products of this industry are not being utilised as is done in Western countries for manufacture of royal jelly, pollon bee, venons etc. The bee-keepers are deprived from earning higher profit as the queen bees are not being produced in larger quantities and distributed to bee-keepers. Similarly, baby bee colonies are also not being produced in large numbers and distributed to bee-keepers. This also has contributed to the above cause. The production of bee wax due to modern methods of bee-keeping averages 3,000 kgs annually in addition to 10,000 kgs from rock bee colonies. But the Bee industry here is utilising only about 2,000 kg bee wax. The remaining wax purchased by private entrepreneurs is used in other industries.

The State Commerce and Industries Department has formulated several programmes for development of apiculture. The important ones are (i) State Level annual plan, (2) Western Ghats Development Plan, (3) Tribal plan, (4) Special Component plan, (5) Industrial Development plan and TRYSEM for self employment training for rural youth.

Table No. 14

The production values (in rupees) of the honey production in Kodagu district under various plans and schemes from 1980-81 to 1989-90 as noted below:

Year	Tribal Sub-Plan	Western Ghats Developmt. Prog.	State level annual plan	Special component plan	Rural artisan training prog.
1980-81	2,55,267	24,992	10,534	-	-
1981-82	2,36,887	23,080	12,265	-	-
1982-83	3,83,138	23,264	18,500	-	-
1983-84	4,09,177	41,616	1,39,083	2,60,969	-
1984-85	1,72,358	33,632	1,96,541	1,46,870	-
1985-86	2,48,654	66,202	2,48,697	1,04,162	36,022
1986-87	2,02,434	1,79,360	1,97,893	-	42,897
1987-88	96,635	99,986	2,85,885	-	48,200
1988-89	66,434	-	74,339	-	-
1989-90	36,634	-	1,22,350	7,500	-

Source: Office of Bee Development Officer, Karnataka, West Zone, Madikeri.

Table No. 15

Honey production in the district in the decades 1960-1980 and from 1986-87 to 1989-90 is tabulated below:

Year	Honey Production (In lakh kgs.)
1960	2.00
1960-70	2.50
1970-80	3.00
1086-87	3.20
1987-88	3.50
1988-89	4.20
1989-90	3.40

Source: Office of Bee Development Officer, Madikeri.

The bee keeping industry in Kodagu district ran profitably upto the early 1991 without any hindrance. But in latter part of 1991 and in early 1992 the bees in the district have been dying due to affliction of the contagious disease called "European Foul Brood", resulting in pushing the bee keepers in the maze of loans. If the government does not provide measures to eradicate the disease and also extend financial assistance to the bee- keepers, it is felt that Coorg honey may vanish from market.

FOREST WEALTH

The total geographical area of Kodagu district is 4,10,775 ha and forest has occupied 1,34,657 ha which is about 1/3 of the total area. The forests in the district are full of teak, rosewood, *honne*, sandal wood, cane etc. Which have been contributing substantial income to the State exchequer. The cane grown in the district had attracted foreigners. The description recorded by Captain Basilhall in 1813 when he saw the bamboo canes while on the way to Siddaput from Mysore is profound and captivating. The forests here are on the eastern and western sides of the ghats and are evergreen. The First Five Year Plan did not envisage any programme for development of forests. However this was accorded priority in the remaining five year plans and forests are being developed. The forest wealth here mainly consists of sandal wood, soapnut, tamarind, bee wax etc. In recent years the Zilla Parishad has implemented several schemes through the Forest Department. For improvement the forest wealth Rs. 4.37 lakhs have been spent under the World Bank aid in 1990- 91 for social forestry comprising tree gardens, seedlings, nurturing and growing of bamboo nurseries. Tree gardens have been developed in 66 ha and bamboo in 15 ha, besides Rs. 5.82 lakhs have been spent for nurturing of seedlings and 200 plots of bamboo seedling nurseries. Rs. 50,000 have been spent in School gardens, Rs. 4.80 lakhs have been procured from the National Waste Land Development Board for decentralised plant centres. Under the Special Component Plan Rs. 60,000 have been spent for nursing and growing Social secure woods in Madikeri and Virajpet Taluks. The work is under progress.

In 1990-91 the total forest area in the dist. was 1.35 lakhs ha, of these 47,514 ha were in Madikeri taluk, 20,849 ha in Somvarpet taluk and remaining 66,234 ha were in Virajpet taluk. During this year 38 Lakhs seedlings have been planted under various schemes. In the same year the earning from sandal wood totalled Rs. 269 lakhs, timber fetched Rs. 50 lakhs, bamboo Rs. 2.00 lakhs while other sources fetched Rs. 7.00 lakhs according to the reports of forest department. (See table No. 1 6 for details)

INDUSTRIAL DEVELOPMENT

Kodagu district is one of the industrially backward districts of the State. The reasons for its industrial backwardness are that this district is solely dependent on road transportation which is limited, and lack of enthusiasm in enterprise. By the end of March 1990 only two medium scale industries were handling coffee curing. The capital investment on them was Rs. 287.20 lakhs. They have provided employments to 425 workers, and produced goods worth Rs. 2.00 crores during 1989-90. At the same time there were 1,171 registered small scale industries working in the district. They provided employment to 5,078 workers and in 1989-90 had produced goods worth Rs. 970.26 lakhs. There were in all 1,092 cottage industries in the district. There is abundant scope for development of industries connected with fruit processing, bee keeping and forest wealth in the district. Besides production of goods based on demand, engineering, pottery, electric, and electronic items, ready made dresses, leather works etc. may thrive due to heavy demands. Industries like photo processing, cutting granite stones and polishing, manufacture of beaten rice, manufacture of matchboxes, production of plastic goods etc. have been helpful in development of industries in the district.

Table No. 16

Extent of Production from the Forests in the Districts and their values from 1984-85 to 1988-89 is tabulated below

(Value in Rs. Lakhs)

Years	Sandal Wood		Timber		Fuel		Coal		Bamboo		Value of Minor products of forest
	Qty. in Tonnes	Value	Qty. in C.mt.	Value	Qty. in C.mt.	Value	Qty. in bags	Value	Qty. in No.	Value	
1984 - 85	137	11.00	17,751	454.00	25,080	28.00	315	0.7	56,645	0.57	1.66
1985 - 86	225	11.00	49,568	316.00	48,122	32.00	2,200	0.41	64,314	1.08	10.81
1986 - 87	102	31.00	24,147	648.00	31,852	41.00	3,955	0.71	61,151	0.59	2.35
1987 - 88	76	18.00	8,759	648.00	11,968	19.00	4,175	0.83	53,321	0.89	2.35
1988 - 89	178	51.00	7,138	281.00	10,059	09.00	2,800	0.56	28,545	1.11	2.35

Source : Office of the District Statistical Officer, Madikeri.

As per the report of the district's socio-economic survey of 1990-91 in the current year there were 30 factories in the district; of them eight factories concern engineering, and 22 others. They have provided employment for 1,814 workers. In the same year there were 1,323 registered small scale industrial units functioning in the district and they were providing employment for 5,468 workers.

Table No. 17

The details of registered small and tiny industries registered from 1983-84 upto 1989-90 in the district is furnished in the table below.

Year	No. of units	Capital Investment in Rs. lakhs	No. of employees
1983-84	82	22.57	289
1984-85	130	27.08	521
1985-86	117	44.63	235
1986-87	115	48.48	516
1987-88	103	42.23	252
1988-89	102	48.95	361
1989-90	110	35.61	375
Total	759	269.55	2,549

Source: District Industrial Centre, Madikeri.

Economic Physical Facilities

The development of economy of a district mainly depends on the agriculture and industrial development, forest wealth, man power besides other financial facilities like commerce, financial institutions, electricity, transport and communication facilities available in the district. Detailed account of many of these facilities are made available in several other chapters of this volume and as substantial information has been incorporated in this chapter only brief accounts of the remaining are furnished here.

On observing the details of business in the district, Madikeri, Virajpet, Somvarpet, Kushalnagar, Suntikoppa, Gonikoppal and Shanivarasanthe are prominent while places like Bhagamandala and Kudige are moderate. Large number of merchants have settled in towns. The import and export business of the district is mostly handled by merchants from Malabar, retail business is mostly carried out by merchants who are from outside while a small part of it belong to local merchants. As the district is devoid of railway transportation the entire trade depends on road transportation and is found to thrive in all the seasons except rainy season. Banana is extensively grown in the district and hence the towns adjacent to the banana gardens have become key business centres. Gonikoppal, Suntikoppa, Kushalnagar and Virajpet have gained importance in trade on this account. Recently Shanivarasanthe and Kodlipet have started selling green chillies in two to three days weekly bazaars which has attracted traders from other districts. The district has trade links mostly with Kerala, Dakshina Kannada and Mysore.

While discussing economic facilities it is observed that in earlier days lending business was cornered by private money lenders. Even now in the rural areas of the district this practice is in vogue. Modern banking dealings started in 1922 by establishment of the Coorg State Co-operative Bank. Since 1934 Commercial Banks have cropped up. The Co-operative movement started in Kodagu in 1905 itself. Registered Co-operative Societies, Land Development Bank and the like are now the centres in Rural areas extending loan facilities to rural public.

Table No 18

Talukwise banking facilities which were available in the district in 1989-90 is furnished in the table.

Sl.No.	Name of Bank	Madikeri	Virajpet	Somvarpet	Total
1.	Branches of State Bank	4	2	3	9
2.	Nationalised Commercial Banks	20	31	21	72
3.	Regional Rural Banks (Grameena)	8	6	4	18
4.	Private sector	5	-	4	9
5.	Co-operative Banks				
a)	District Central Co-operative Bank	4	2	5	11
b)	Land Development Bank	2	1	1	4
c)	Town Co-operative Bank	3	2	1	6
	Total	46	44	39	129

Source: Lead Bank Report 1989-90.

Electricity

The development of Industries and other economic sectors mainly depend on supply of electricity. With the intention of taking up hydro-electric power generation, the Madras Electricity Board started investigation of Borapole Hydro Electric Project in 1945 and estimated that about 30,000 to 40,000 KW power could be generated here. In 1953, M.S.Thakar, M.Narasimhaiah and Prof. Govinda Rao counselled the Government of Coorg to make the best use of this project. The project was reinvestigated by Mr M.R.Krishnamurthy Rao of Mysore who also prepared detailed blue prints. The Government of Karnataka proposed to spend Rs. 20.00 lakhs on this project in the Third Five Year Plan. However due to inadequacy of funds and as priority was to be given to other hydro electric projects this project was temporarily stopped. Recently the project work has been stalled due to opposition by Kodagu public.

With the intention of harnessing power in air at Thalacauvery, Karnataka State Industrial Financing and Development Federation, with the co-operation of state institutions like the Karnataka Electricity Board, Karnataka State Finance Corporation and the Central Government assistance of Rs. 65 lakhs commenced in 1988 a scheme estimated at Rs. 1 crore. Windmills imported from Denmark have been erected at Thalacauvery. Though these wind mills have been established two years ago they have yet to generate electricity.

Of the total 3,280 km power transmission line in the district in 1989-90, there were 134 km long 33 K.V.A. line 1,798 km long 11 K.V.A. line and 2,716 km long 440 voltage line. Upto 1990-91 all the 289 villages and 150 hamlets had been electrified. At the same time there were 45,911 electrical connections in all and were being used for different purposes.

Transport and Communication

The district does not have either railway or air-link. There are no National Highway in this district either. The State Highway and district roads have provided communication links to all the taluks and towns. The main District Roads in the district are, Madikeri-Bhagamandala road, Madikeri-Virajpet road, Madikeri- Kodlipet road, Virajpet, Mysore road, and Gonikoppal-Mysore road. The total length of the roads in the district in 1990-91 was 2,782 km of these 806 km was in Madikeri taluk 978 km in Somvarpet taluk and 998 km in Virajpet taluk. The total number of vehicles belonging to various categories was 14,901. Of these Government vehicles numbered 196 and 14,705 were private vehicles.

The post offices, telegraph offices, telephone offices and telephone exchanges, all grouped together called communication facilities. In Kodagu district, there were 213 post offices, 68 telegraph offices, 5,436 telephone connections and 61 telephone exchanges in 1988-89. Of these 47 post offices, 31 telegraph offices, 18851 telephone connections and 21 telephone exchanges were located in Madikeri taluk. Somvarpet taluk had 81 post offices, 25 telegraph offices, 1,341 telephone connections and 17 telephone exchanges. Virajpet taluk had 85 post offices 12 telegraph offices, 2,244 telephone connections and 23 telephone exchanges. In 1989-90 and 1990-91 the district had respectively post offices 213 and 215; telegraph offices 73 and 85; telephone connections in use were 5,831 and 6,270.

There are sufficient number of educated and wealthy person in the district who are capable of procuring receiving facilities of Radio and Doordarshan, though the statistics on the use of these are not available in the absence of licensing facilities.

PRICES

More than a century ago the Kodagu farmers used to produce agricultural products in great quantities. But they were not getting proper returns for their produce. The main reasons for this were lack of transport and marketing facilities. In the past considerable quantities of paddy grown used to be thrown away as the farmers had no storage facilities nor could they meet the cost of

thrashing it as stated by an author from the district. In 1864 rice used to be sold at 10 to 22 seers per rupee, ragi at 20 to 35 seers, salt at 10 to 22 seers and wheat at 4 to 6 seers. In 1873 superior variety of rice was available at 10 seers per rupee, and ragi at 35.06 seers per rupee. In 1876 fine rice was sold at 8.31 seers per rupee and ragi at 16.42 seers per rupee. After a decade, in 1886 rice was sold at Madikeri at 13.4 seers per rupee whereas it was 17.8 seers per rupee in next year. The prices increased substantially in 1892. The price of rice was 9.8 seers per rupee in 1892 and in 1907 rice was available at an average of 10-12 seers per rupee. The price of ragi was 24.8 seers per rupee in 1896 and 17.12 seers per rupee in 1907. The prices of various foodgrains and commodities in the period from 1873 to 1876 is furnished in Table No. 19. and subsequent tables no 20,21,22 and 23.

The principal reason for variation in prices are increase in population, variation in paddy growing areas, and the variation of the price in the value precious metal, etc. In the pre-First World War (1914) period fine rice was being sold at 8 seers per rupee. It was 10-16 seers in 1864 per rupee and became 8 seers per rupee in 1914. A year before this world war, it could be seen that there were disadvantageous trends from the point of view of the consumer. They began to purchase more and more consumer goods even then. The type of inflation which is now seen originated in the decades after the First World War.

When Kodagu was being ruled by kings, paddy was being sold in excess of 50 seers per rupee. In the 70's of the last century the cost of on *butti* (80 seers) of paddy used to be Rs. 2 to 3. In 1958 it costs Rs. 16 and in 1959 it was more than Rs 14. Cost of coffee seeds varied from Rs 7 to 10 per *butti* (80 seers). In 1920 the prices of all varieties of sweets in the hotel of Kongappaiah was 12 pies, (present 6 paise), a meal cost 16 pies (present 10 paise). One pie of those days could purchase two pockets full of ground nuts, peas etc. In the recession period of 1930, cultivaters could not get proper price even for their meagre production and many coffee estates were closed down. The following figures depicting the values of a cart load of paddy are taken from the book the *Coorg Memories* written by Sri I.M.Muthanna. One cart load of paddy costed in 1920 Rs. 28, in 1930 Rs 50, in 1940 Rs 180, in 1950 Rs 380 and in 1960 Rs 520. The cost of one maund of coffee was Rs 50 in 1920, Rs 80 in 1930, Rs 300 in 1940, Rs 500 in 1950, and Rs 850 in 1960.

The trend of lower prices during the period of financial stringency made way for inflation in prices since 1935 as a result of the changes in the governments policies. During the Second World war paper money circulation widened while there was no increase in production of commodities which resulted in spurt in demand and spiralling of prices. In 1940 rice was available at 4 seers per rupee and ragi for 6 seers per rupee. During the war prominence given to arms and ammunition required for the war was unsatisfactory. This resulted in the increase in hoarders and also black marketing and state distribution system for food articles. Agriculture production was neglected and consumer had to suffer. The Kodagu administration imposed controls on transactions of consumer goods operation and suppressed the irregularities like hoarding and transport of goods. When the essential commodities came under control, rationing system was introduced in the towns. The foodgrains which were transported into towns were regulated. But as paddy was being grown extensively in the district, its movement was not subjected to severe regulation. The rationed

articles were distributed without inconveniencing to any section. But even after the end of the War in 1945, the prices of essential commodities did not fall. The scrapping of rationing also failed to produce a down-ward trend in prices. Many known measures were implemented for checking inflation in addition to taking steps to minimise cash circulation among the general public. Banks were directed not to extend loans for farming, To help the poor selling of commodities was arranged through co-operative societies and fair price shops, with government subsidy. Arrangements were also made to protect the estate workers from the pressure of inflation. The estate owners also made arrangements for providing the essential commodities to their workers at fair price.

Table No. 19

The approximate prices of certain commodities from 1870 to 1952 is listed in the table (in rupees and paise of today)

Commodities	1870	1890	1905	1920	1935	1945	1952
Paddy (cart load)	20.00	28.00	40.00	80.00	28.00	100.00	200.00
Cardamum (maund)	10.00	15.00	23.00	70.00	40.00	140.00	325.00
Coffee (khandi)	98.00	450.00	120.00	95.00	100.00	350.00	650.00
Jaggery (maund)	2.50	3.50	4.00	4.00	4.50	5.00	5.00
Salt (seer)	0.02	0.03	0.06	0.04	0.06	0.09	0.11
Potato (vise)	0.13	0.13	0.19	0.25	0.31	1.00	1.00
Onion (seer)	0.02	0.02	0.03	0.06	0.04	0.08	0.38
Dhal (seer)	0.09	0.12	0.15	0.25	0.22	0.50	0.93
Butter (seer)	0.12	0.19	0.25	0.37	0.50	1.00	2.25
Coconut Oil (seer)	0.15	0.25	0.37	0.62	0.75	1.50	3.00
Muslin Cloth (yard)	0.15	0.19	0.25	0.50	0.56	0.93	1.42

Source: A Tiny Model State of South India.

Table No - 20

The Prevailing prices of various foods and

Name of Market	Rice (fine)				Rice (medium)			
	1873	1874	1875	1876	1873	1874	1875	1876
1. Madikeri	10	10.37	10.4	8.31	11.12	11.7	11.9	10.4
2. Virajpet	10	12	12	9	14	14	14	10.5
3. Fraserpet (Kushalnagar)	10	10	10	9	16	16.37	16	11.5
4. Somvarpet	-	-	-	-	18.06	20	19	15
5. Shanivarsanthe	-	-	-	-	20.12	22	20.6	14.1
6. Kodlipet	-	-	-	-	20	24	24	13.4
7. Ponnampet	-	-	-	-	14	15	26	14
8. Colpet (Ammathi)	12.06	12	12	10	14.05	13	13	11
9. Ramaswamy Kanive	-	-	-	-	16	18	16	11

Sources : Lewis Rice, Mysore and Coorg Gazetteer, compiled for Government of India, Vol. III, Coorg 1978, P.311.

(Table 20 Continued)

commodities in the district from 1873 to 1876

Ragi				Wheat			Barley			Horsegram		
1873	1874	1875	1876	1874	1875	1876	1874	1875	1876	1874	1875	1876
25.06	30.75	21.18	16.42	7.75	8.9	8.07	9.14	10.9	9.07	17.23	19.37	15.28
38	30	24	17.5	9	10	9	7	9	8	16	20.00	16.00
48	42.75	26.64	20.74	8	10	8	10	8	9.37	19.68	23.32	18.74
40	45	28	20	-	-	9	8	8	10	18	20.00	16.00
48.52	45	30	20.2	-	-	-	10	9.20	8.05	20	20.7	16.1
45.86	45	30	22.4	-	-	-	10	10.25	9.4	20	22.0	18.4
40	20	28	16	7	6	7.5	7.40	7	8	14	17	16
30.82	28	24	17	8	8	8	9	8	9	14	18	15
45	43	32	23	-	-	-	9	8	8.5	20	24	18

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Name of Market	Rice (fine)				Rice (medi	
	1873	1874	1875	1876	1873	1874
1. Madikeri	10	10.37	10.4	8.31	11.12	11.7
2. Virajpet	10	12	12	9	14	14
3. Fraserpet (Kushalnagar)	10	10	10	9	16	16.37
4. Somvarpet	-	-	-	-	18.06	20
5. Shanivarsanthe	-	-	-	-	20.12	22
6. Kodlipet	-	-	-	-	20	24
7. Ponnampet	-	-	-	-	14	15
8. Colpet (Ammathi)	12.06	12	12	10	14.05	13
9. Ramaswamy Kanive	-	-	-	-	16	18

Sources : Lewis Rice, Mysore and Coorg Gazetteer, compiled for Government of India, Vol. III, P.311.

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(Table 20 Continued)

commodities in the district from 1873 to 1876

Ragi				Wheat			Barley			Horsegram		
1873	1874	1875	1876	1874	1875	1876	1874	1875	1876	1874	1875	1876
25.06	30.75	21.18	16.42	7.75	8.9	8.07	9.14	10.9	9.07	17.23	19.37	15.28
38	30	24	17.5	9	10	9	7	9	8	16	20.00	16.00
48	42.75	26.64	20.74	8	10	8	10	8	9.37	19.68	23.32	18.74
40	45	28	20	-	-	9	8	8	10	18	20.00	16.00
48.52	45	30	20.2	-	-	-	10	9.20	8.05	20	20.7	16.1
45.86	45	30	22.4	-	-	-	10	10.25	9.4	20	22.0	18.4
40	20	28	16	7	6	7.5	7.40	7	8	14	17	16
30.82	28	24	17	8	8	8	9	8	9	14	18	15
45	43	32	23	-	-	-	9	8	8.5	20	24	18

Table No. 21

The retail rates of commodities in Madikeri from 1911 to 1924 is tabulated below :

Year	(in seers per rupee)					
	Wheat	Barley	Common Rice	Ragi	Gram	Salt
1911	6.90	6.00	9.20	13.16	14.10	18.70
1912	6.00	6.00	8.80	15.11	14.20	17.00
1913	6.00	6.00	8.80	15.00	9.00	16.00
1914	6.00	6.00	8.80	15.00	12.00	16.00
1915	6.00	6.00	8.14	15.80	12.60	17.10
1916	6.10	5.13	8.40	17.60	14.60	17.40
1917	5.12	5.10	7.70	14.90	14.12	12.50
1918	4.10	4.00	6.80	13.00	8.70	9.40
1919	2.10	2.70	4.80	6.80	6.70	12.60
1920	2.50	2.00	5.90	8.40	5.80	13.12
1921	3.20	-	6.50	10.20	6.50	13.50
1922	3.20	-	5.13	7.15	6.13	11.80
1923	3.90	-	6.20	10.11	3.10	9.10
1924	3.12	-	6.00	8.80	7.50	10.60

Table No. 22

The average whole sale prices of certain selected food grains as existed in Kodagu district from 1957 to 1961 is noted in Table below:

Food Grains	(in rupees per maund)				
	1957	1958	1959	1960	1961
Rice	19.49	19.95	20.59	52.00	61.00
Wheat	20.10	19.84	20.96	55.00	56.00
Maize	14.30	12.04	14.12	42.00	38.00
Whole sale rate of rice per quintal					
		1987	1988	1989	
Medium rice		324.00	410.00	395.00	
Coarse rice		300.00	373.00	378.00	

Source: Office of District Statistical Officer, Madikeri

Table No. 23

Retail prices of certain commodities as existed in Kodagu District from 1982 to 1990 is tabulated here:

		(in rupees per kg)								
Sl. No.	Name of Commodity	1982	1983	1984	1985	1986	1987	1988	1989	1990
1.	Rice (Coarse)	2.57	2.60	2.75	2.72	3.01	3.27	3.28	4.24	4.36
2.	Rice (Medium)	2.78	2.90	2.95	2.72	3.26	3.45	4.11	4.47	5.50
3.	Tor dal	6.45	7.08	7.20	7.53	7.83	13.15	14.16	12.19	14.50
4.	Urddal	5.90	6.60	8.61	8.81	8.69	9.75	10.76	11.71	12.81
5.	Green gram	5.85	6.70	7.38	7.82	8.18	8.78	12.11	12.34	12.83
6.	Horse gram	5.55	5.76	7.10	7.48	8.00	8.31	9.50	11.92	-
7.	Potato	2.28	2.60	2.40	2.18	3.73	3.12	3.46	3.07	3.63
8.	Onions	1.54	1.66	1.60	1.70	2.20	4.10	3.35	3.15	3.18
9.	Ground nut Oil	14.77	15.30	17.75	16.30	18.16	27.50	25.50	24.02	32.67
10.	Castor Oil	12.00	12.00	16.10	16.05	16.28	17.45	19.33	22.48	-
11.	Dry Chillies	13.75	13.50	17.17	18.98	13.49	17.86	19.54	26.76	16.54
12.	Jaggery	2.15	3.05	5.45	3.65	3.69	4.25	4.11	4.75	7.54
13.	Coconut Oil	19.02	22.00	26.00	26.00	28.00	37.80	41.50	38.83	38.21
14.	Tamarind	7.90	6.75	10.20	13.25	8.48	9.25	9.08	8.05	-
15.	Coconut (each)	1.83	2.23	3.30	2.45	2.62	3.60	3.96	3.28	-
16.	Sugar	5.86	5.06	5.45	5.85	6.83	7.16	7.53	7.90	8.85
17.	Salt	0.40	0.45	0.65	0.65	0.69	0.73	0.78	0.79	-

Source : Office of the District Statistical Officer, Madikeri

It is observed that the wholesale prices of food articles have risen in 1990-91 compared to the previous year. Per quintal cost of fine rice was Rs. 470 to Rs. 650, Medium Rice Rs. 390 to Rs. 550 ordinary rice Rs. 375 to Rs. 450, boiled rice Rs. 390 to Rs. 520; and ragi cost from Rs. 270 to Rs. 320. The retail prices on an average for the year were as follows: per kg fine rice Rs. 5.58, medium rice Rs. 4.36, ordinary rice Rs. 4.10, boiled rice Rs. 4.41, ragi Rs. 3.0, wheat Rs. 5.12, maize Rs. 2.60, turdhal Rs. 14.80, urd dal (black gram) Rs. 12.50 sugar Rs. 8.53, jaggery Rs. 5.30, dry chillies Rs.15.83, potatoes Rs.3.00, onion Rs.3.20, groundnut oil Rs. 34.75 per litre, til oil Rs. 37.33, and coconut oil Rs. 38.75.

There were 250 fair price shops in all in the district in 190-91, and of these 240 were in rural areas and 10 were in urban area. In Madikeri there were 5,548 ration card holders. In the district (excluding Madikeri) there were 1.03 lakh ration card holders in all. Of these 55,484 green card holders and 41,974 pink card holders. Cloth has been distributed to the green ration card holders in rural areas on discount in 1990-91.

Table No -24

The Regulated Market rates from 1980-81 to

Name of Commdity		80-81	81-82	82-83	83-84
Rice per	(mini)	250	230	260	260
Quintal	(max)	280	270	280	280
Coconut	(mini)	120	135	170	170
per 100	(max)	180	175	200	200
Cashew	(mini)	-	-	500	-
	(max)	-	-	600	-
Pepper	(mini)	13.50	-	9	18
per kg.	(max)	14.50	-	11	20
Cardamum	(mini)	75	92	-	-
per kg.	(max)	109	170	-	-
Orange	(Mini)	20	15	-	25
per 100	(max)	40	25	-	30
Bananas	(mini)	25	30	30	30
per 100	(max)	35	40	40	40
Paddy	(mini)	115	125	125	140
quintal	(max)	130	135	135	180
Soapnut	(mini)	-	60	60	-
per quintal	(max)	-	100	100	-
Arecanut	(mini)	-	80	80	300
per quintal	(max)	-	100	100	400
Antuvala	(mini)	-	-	-	-
per quintal	(max)	-	-	-	-

Source : Regulated Market Committee, Madikeri

24 (continued)

1989-90 is furnished in this table:

(in Rupees)

84-85	85-86	86-87	87-88	88-89	89-90
300	280	265	250	480	320
340	300	350	325	520	500
250	200	175	250	280	250
300	250	290	400	340	350
-	1,550	1,700	1,500	1,500	1,500
-	1,650	1,400	1,650	1,600	1,600
10	30	-	40	40	40
12	35	-	55	50	48
-	-	-	-	-	-
-	-	-	-	-	-
60	30	35	30	20	-
70	50	40	50	30	-
25	25	-	30	20	30
30	35	-	40	50	40
140	150	200	140	190	200
180	200	220	160	210	250
-	640	700	400	-	-
-	680	800	600	-	-
400	400	1,500	-	1,700	2,000
600	600	2,200	-	2,200	2,500
-	-	-	500	-	-
-	-	-	650	-	-

WAGES

At the commencement of the 19th Century the farm workers in Kodagu were mostly being carried out by Jammadalu slaves. Even observations of Lt. Connor (1817) support the view. Together with the Jammadalu or daily wage workers were also engaged when the quantity of work was more. Rich farmers used to entrust the maintenance of cattle to Jammadalus under their own supervision. On some occasions neither co-operation nor farmers' supervision was available to the workers. The labourers employed in Kodagu used to work on daily-wage basis right from 7.00 in the morning upto sunset for a small quantity of rice. If the labourer has been contracted for a year, he used to get country blanket one kambali two pieces of loin cloth, two towels, a short, *dhothi* and two *varaha*'s a year together with daily food etc. This daily wage was not attractive as most of the land owners used to own *jammadalus*. If the wages were to be paid only in cash it used to be six *varahas* (Rs. 18) or a little more than this. This was a very a small amount and two-thirds of this amount would be required for the labourer for his own maintenance.

Colonel Sankey has described the labour market related to public works in 1865 as follows: It would become hard to get labourers as soon as the monsoons started. The labourers from Mysore would not be available for farm works, the reason being that most of them would be employed in the coffee estates. The Coolies used to earn a little money by selling fire-wood in addition to their daily wage of four annas. Mapile Coolies used to earn Rs. 10 per month at the foot of the mountain. Tamilians who worked on Pariambadi-Anechakoor road used to earn wages in kind like salt and fish. He states as follows regarding their obtaining minimum wages: Male Coolies used to earn Rs. 6 per month in eastern and southern Kodagu. They used to get Rs. 7 per month in western and northern parts of Kodagu. The second class workers used to get Rs. 4.50 in eastern and northern Kodagu while they used to get Rs. 5.00 in the western and southern Kodagu. Women and children were earning Rs. 3.75 in eastern and northern Kodagu and Rs. 4.00 in Western and southern Kodagu. Constables used to get Rs. 15 per month in eastern and southern Kodagu. Rs. 18 in Western and southern Kodagu. There was public pressure for increasing all these wages. Unskilled workers used to get 4 annas (25 paise) to six annas (37 ps) per day, while skilled workers used to get from 12 annas (75 paise) to Re.1 per day. Hire charges for carts used to be from Rs. 1.50 to Rs. 2.00.

Workers from Mysore used to work in coffee estates in Kodagu after their harvest season and by the onset of monsoons used to return to their places and commence their agricultural operation.

Wages paid to the clerks were Rs. 4 to Rs. 7 p. m from 1868 to 1880. This was raised to Rs. 10 in 1890. Lower level teachers used to earn wages at Rs. 2 to 5 per month. Workers used to get their wages in the form of food grains. I.M.Muthanna states that the daily wages of men coolies ranged from 10 paise to 36 paise.

In 1843, the British Government abolished slavery. But these slaves (*jammadalus*) did not leave their masters all of a sudden. Land owners of Kodagu had the facility of utilising them extended for a further period. But many slaves left them, being attracted by the wages available in coffee estates. This resulted in their master's treating them better and even increasing their food quota. In 1878 the wages of men varied from Rs. 6 to Rs. 7 per month, that of women and children varied from Rs. 3.75 to Rs.4. Daily wages of unskilled workers from four annas (25 paise) to six

annas (37 paise) and that of skilled worker from 12 annas (75 paise) to one rupee. Wages which were offered for daily work underwent a sea-change. As and when the coffee estates expanded in area workers were imported from Mysore, Dakshina Kannada and Kerala.

The structure of wages in Kodagu underwent many changes. Earlier the farm labourers used to obtain their wages in the form of foodgrains. In course of time this was changed to cash. Wages increased during the First World War. However the financial stingency in 1929 resulted in decrease of wages. It increased again after 1930 based on production and economic considerations. In 1932-33 skilled workers used to earn Rs. 1.40 per day and the non-skilled workers 10 annas (62 paise) per day. In the 1940s the wages had an upward trend. In this period the daily wages of skilled workers was Rs. 2 to Rs. 2.50 and that of unskilled workers was Rs. 1 to Rs. 1.50.

The enactment of the social security acts after Independence resulted in increase in wages in coffee industry and in private institutions. The Minimum Wages Act of 1948 had promised provisions of good wages to workers. Though there was increase in the wages in several work areas due to increase in the cost of living workers had to strive to make both ends meet. In 1964 skilled workers used to get Rs. 5 per day and un-skilled workers used to get Rs. 2 per day. The wages in coffee estates varied from Rs. 2.50 to Rs. 3.50 per day.

Minimum Wages

Government of Karnataka has fixed minimum wages for workers in 36 industries consisting of shops and commercial establishments, residential hotels and eating house, engineering industry, tailoring industry, construction and repairs of roads and buildings, printing press, film industry, agarabathi industry, tobacco industry, public motor transport, hospitals and nursing homes, clubs, bakeries, confectionery, stone Quaring or stone crushing, plywood industry, carpentry and saw mills, coffee curing works, flour or dal mills, Oil mills, toddy tapping, tile industry, farm labour, cinchona, rubber, tea and coffee plantations, cardamum garden, sericulture, cashew industry, cotton ginning, pressing and manufacturing, tanning and leather industry, Khandasari sugar factories, textile industry, automobile engineering, manufacture of vehicles and repairing, foundry and local institutions.

Shops and Commercial establishments

The state Government has fixed minimum monthly wages with effect from 20th August 1987 to all workers employed in any work pertaining to shops and commercial establishments in the state. This is applied at rates fixed in the four zones of the state. The first is Urban zone having jurisdiction over corporations and municipalities, the second zone comprises of all district headquarters, K.G.F., Davanagere, Bhadravathi, Gadag and Hospet, the third zone consists of all taluk headquarters (excluding those included in the second zone), and the fourth zone includes all the areas which are not coming under first, second and third zones. Works have been classified into seven groups and the monthly minimum wages in each of the four different zones according to the different groups in each zone are as follows:

The first group consists of some categories of managers, pharmacists and chemists and their minimum monthly pay is fixed zone wise at Rs. 644.75, 614.75, 599.25 and 584.20. In the second group there are accountant, supervisor and stenographer they get Rs. 560.75, 542.25, 525.75 and 503.70. The third group consists of clerk, cashier, typist, salesman, sales girl, compounder, photographer, photo technician, watch mechanic, T.V.Mechanic, optical mechanic, skilled worker who assemble lifts, technician, carpenter, polishing worker for wooden articles, refractioner, hair dresser, air condition operator, workers who manufacture umbrella and suitcase, receptionist, etc and their minimum monthly pay is fixed at Rs. 492.45, 482.50, 469.70 and 458.25. In the fourth group there were bill collector, bill clerk, godown keeper, booking clerk, assistant photo technician, salesman, salesgirl, shop assistant, packer, etc and their minimum monthly pay is fixed at Rs.465.45, 452.55, 444.70, and 435.25. The fifth group consists of attender, peon, watchman, messenger, weighman, bicycle assembler, store keeper, petrol bunk operator, painter, fruit juice maker, grinder of dough, and all these being general workers (excluding those in administration and clerical services). Their minimum monthly pay is fixed at Rs. 451.75, 435.25, 408.75 and 389.75. The sixth group consists of gunny bag stitcher, who gets Rs. 0.70 per bag and Rs. 0.80 per bag of cement and manure. The seventh group has drivers whose minimum monthly pay is fixed respectively at Rs. 505.25, 494.75, 464.75 and 437.75. Apart from the above there are attenders, cleaners (of vehicles) chief porter, and loaders whose monthly minimum pay is fixed at Rs. 429.75, 414.75, 398.75 and 378.75.

The rates stipulated under the rules of the Act are inclusive of the dearness allowances at 700 points on the average consumer price index at 100 in 1960. For every point exceeding 700 of the State average consumer price index, additional dearness allowance has to be paid as shown below. The calculation of subsistence allowance has to be made on the 1st April every year based on the price indices of previous twelve calendar months. Also the increase in the price index has to be calculated at the average of price indices for the whole year and variation quantum should be decided. The subsistence allowance has to be calculated at 2 paise per point for those getting daily wages of Rs. 10 per day or less and for those whose monthly pay is Rs. 300 or less; for those getting daily wages of Rs. 10 and above or Rs. 15 and below or monthly pay from Rs. 301 to Rs. 450 at 2.5 paise per point; and for those whose daily wage is more than Rs. 15 or monthly pay more than 450 at 3 paise per point.

While fixing the minimum wages category-wise the following rules have to be followed: (1) While fixing the minimum daily wages their wages for the entire month has to be divided by 26 and calculate their daily wage and it has to be paid for the four weekly holidays also; (2) When the nature of work is similar the wages for both men and women should be equal and paid as such; (3) Wherever the prevailing rates of wages are higher, the higher rates of wages shall continue to be paid; (4) Categories of employees not mentioned in the schedule shall be paid the same wages payable to the employees in employment of similar nature; (5) In case of piece-work, daily total earning of those workers for eight hours of work shall not be less than the daily rates of wages fixed for that category of employees. In computing the above rates a day's work is deemed to comprise of eight working hours. If the worker is employed for less than 8 hours, wages have to be calculated proportionately. (6) If they work on holidays or festival days they should be paid twice the normal wage they are eligible; (7) for over-time work also they should be paid twice the normal rate of wage; (8) for adolescent (between 15 to 18 years of age) the wages should be 80 percent of

that fixed for those doing similar jobs; (9) apprentices should be paid 75 percent of wages and for children (between 14 and 15 years of age), wages should be 60 percent of the wages of category of work.

Hotels

The State Government has fixed minimum daily wages with effect from 5th June 1984 for workers of restaurants and lodges. The wages fixed were applicable for all the three zones. The first zone comprises of areas coming under Corporation, the second zone consists of areas coming under Municipalities and the remaining areas are classified as the third zone. For any type of job of residential hotels and eating houses the basic monthly pay as applicable for the first second and the third zone respectively is furnished herewith:(1) Cooks and those who prepare sweets and refreshment items, Rs. 425, Rs.400 and Rs. 380; (2) Supervisors and manager of kitchen Rs. 400, Rs.380 and Rs.370; (3) bar workers Rs. 380, Rs. 370 and Rs.362; (4) assistant cooks (those who prepare *dosas*, *chapathies*, *idlies* etc) Rs. 370, Rs. 362, and Rs. 346; (5) room boys Rs. 370, Rs. 362 and Rs. 346; (6) those who prepare coffee, tea, and suppliers Rs. 346, Rs. 285, and Rs. 265; (7) those who cut meat and vegetables and those who prepares parcels Rs. 285, Rs. 265 and Rs. 247; (8) Water suppliers, gardeners, dobhi, etc, Rs. 285, Rs. 265 and Rs. 247; (9) Receptionists Rs. 425, Rs. 400 and Rs. 380; (10) telephone operators Rs. 425, Rs. 400 and Rs. 380; (11) Electricians Rs. 400, Rs. 380 and Rs. 370; (12) light operators Rs. 285, Rs. 265 and Rs. 247; (13) accountant Rs. 425, Rs. 400 and Rs. 380; (14) clerk, typist, cashier, store supervisor Rs. 370, Rs. 362 and Rs. 346; (15) Cleaner, watchman, sweeper assistant etc. Rs. 285, Rs. 265 and Rs. 247 and (16) peons and other unskilled workers Rs. 285, Rs. 265 and Rs. 247. In addition to the basic pay as listed above, the dearness allowances is also fixed with effect from 1.4.1985. This is fixed as applicable to other industries for points exceeding 470 (with bases at 100 in 1960).

Engineering Industry

The State Government has fixed the minimum wages for workers in engineering industry with effect from 18th Feb. 1987. According to their categories the minimum daily wage applicable to them in the first second and third zone is as follows: Highly skilled worker Rs. 30, Rs. 28 and Rs. 26; skilled worker Rs. 21, Rs. 18.60 and Rs. 16.50; semi-skilled worker Rs. 16.50, Rs. 15 and Rs. 13.50; for unskilled worker Rs. 15, Rs. 14 and Rs. 12.50. The minimum wages for workers of tailoring industry has come into effect from 12th Feb. 1986 and according to the category of job the daily minimum wages in the first, second and the third and fourth zones respectively are as follows: highly skilled workers Rs. 18,17, 16 and 14.50; skilled workers Rs. 17, 16, 15.50 and 14; semi-skilled workers Rs. 15, 14.50, 14 & 12; unskilled Rs. 14, 12, 11 & 10.50; and office workers Rs. 14.50, 14, 12 and 11.

Roads and Buildings

The minimum daily wages for workers engaged in construction and repairs of buildings and roads according to the category of the jobs in the first, second and the third zones respectively are fixed as follows: Skilled workers Rs.16, 15 and 14; semi-skilled workers Rs. 13, 12 and 11; unskilled heavy labourers Rs. 10.50, 9.75 and Rs. 7.75; unskilled light labourers Rs. 8.55, 7.80 and

7.80; bullock cart driver Rs. 17, 16 and 15; graduate worker Rs. 16, 16 and 16; single bullock cart driver Rs. 16, 15 and 14; literate cooly Rs. 12, 10 and 10; engineering diploma holders Rs. 18, 18 and 18; engineering graduate Rs. 25, 25 and 25; watchman Rs. 9, 8 and 8; Sweepers Rs. 9, 8 and 8; blower head labourer and blue printer Rs. 11, 10 and 9.50.

Printing press

The State Government has fixed the minimum wages applicable to workers of printing presses with effect from 25th May 1984. According to the category of the jobs the minimum wages for workers in the first, second and third zone respectively are as follows: skilled workers Rs. 16, 15 and 14.25 per day, and Rs. 416, 390 and 370.50 per month; semi skilled workers Rs. 14.50, 13.50 and 12 per day and Rs. 377, 351 and 312 per month; unskilled workers Rs. 11, 10.20 and 9.50 per day and Rs. 285, 265 and 247 per month; office workers (clerk typist) Rs. 360, 335 and 300 per month; cashier Rs. 420, 400 and 380 per month and store keeper Rs. 370, 346 and 335 per month.

Film Industry

The minimum wages for workers of film industry has been fixed by the State Government with effect from 24th May 1984. This industry is grouped under five zones, depending upon population and in each zone the category of work has been divided into (1) exhibition sector (2) production and distribution sector and (3) studio sector applicable to the state. The first zone comprises of cities and areas coming under Municipalities, the second zone comprises of the area having more than 1,20,000 population excluding those coming under the first zone, the third zone comprises of area with population between 40,000 and 1,20,000, the fourth zone comprises of areas with population between 15,000 and 40,000 and the fifth zone comprises of area having a population less than 15,000. The exhibition wing in the cinema industry has four categories of jobs in each zone. The first zone consists of assistant manager, supervisor, accountant, chief operator, etc. and their monthly minimum pay is fixed at Rs. 467.50. The second category consists of office assistant, clerk, typists and assistant supervisors and their minimum monthly pay is fixed at Rs. 407.40. The third category consists of sweepers, gardeners, cycle stand supervisors etc. and Rs. 381.85 has been fixed for them. In the other (second to fifth) zones also jobs have been classified into four categories as in the first zone. Rs. 440.45 has been fixed for the first category of the second zone per month, and Rs. 397.55 for the second category, Rs. 381.85 for the third category and Rs. 368.95 has been fixed for the fourth category of jobs. In the third zone Rs. 417.55 for the first category, Rs. 381.85 for the second category, Rs. 368.95 for the third category and Rs. 319.80 has been fixed for the fourth category. In the fourth zone Rs. 407.40 for the first category, Rs. 368.95 for the second category Rs. 319.80 for the third category and Rs. 291.70 for the fourth category have been fixed. In the fifth zone Rs. 397.55 for the first category, Rs. 319.80 for the second category, Rs. 291.70 for the third category and Rs. 268.90 for the fourth category have been fixed.

Beedies, Tobacco

Monthly minimum pay has been fixed by the State Government with effect from 25th July 1986 for the workers in the tobacco industry inclusive of rolling beedies, Rs. 11.50 per thousand

beedies for beedy rollers, Rs. 25 per one lakh beedi wrappers, or Rs. 292.50 per month, Rs. 292.50 per month for tobacco mixers and distributors etc. in all the areas, Rs. 451.50 per month for drivers of trucks, vans and cars, Rs. 499.50 per month for first division clerks, Rs. 451.50 per month, for second division clerks, Rs. 12 per day for loaders and unloaders have been fixed. In the tobacco company Rs. 12 per day for tobacco workers, Rs. 1 for filling a sack with 50 kg or Rs. 292.50 per month, Rs. 451.50 per month for drivers of vehicles, Rs. 499.50 for first division clerks, Rs. 451.50 for second division clerks have been fixed. In the snuff industry there are five categories inclusive the filling 1 1/2 kg of snuff and their minimum daily wages are fixed ranging from Rs. 7.50 to Rs. 0.65; Rs. 11.50 per day for workers in zarda industry and Rs. 292.50, Rs. 499.50, and 451.50 have been fixed respectively for the packers, drivers and first and second division clerks as minimum pay. Dearness allowance is payable at 2 paise per day for every 85 points keeping the base at 100 in 1960.

Transport

The minimum wage has been fixed by the state Government for the public transport industry with effect from 24th May 1984. For drivers and conductors Rs. 390 per month, for the cleaners Rs. 300 per month and Rs. 420 per month for vigilance inspectors and traffic supervisor has been fixed. In the category of office work Rs. 420 for accountants and cashiers, Rs. 390 for clerks, booking agents and assistant cashiers, Rs. 360 for time keepers have been fixed as monthly minimum wage. There are 24 categories of works in the workshops. Among them, Rs. 300 for cleaners, for various lubrication applicers, watchmen etc. Rs. 270 for peons, Rs. 375 for fitters and auto fitters, Rs. 330 for hammerman and assistant labourers, Rs. 420 for assistant mechanic, painter, electrician, battery man etc., and Rs. 430 per month for smiths, welders and 'A' grade workers have been fixed. Together with these wages dearness allowance has to be paid as applicable in accordance with the price index.

Hospitals and Nursing Homes

The government has fixed monthly minimum pay with effect from 26th October 1987 to workers, in hospitals and nursing homes. There are two zones in this sector and minimum pay has been fixed separately in each zone. The first zone comprises of cities and district headquarters. The second category includes all other areas. There are 10 groups of jobs comprising several category of workers. minimum pay for each group applicable in the first and the second Zone respectively is listed below: In the first group there are three categories of jobs and Rs.1,262 and Rs.1,136 have been fixed for all of them: there are 9 categories of jobs in second group and Rs. 1,073 and Rs. 947 per month is fixed for all of them; there being 4 types of jobs in the third group Rs. 1,010 and Rs. 884 is fixed for all of them; there are 12 job categories in the fourth group and Rs. 884 and Rs. 758 is fixed for all of them; there are 4 types of jobs in the fifth group and Rs. 821 and Rs. 758 is fixed for all of them; there are 6 job categories in the sixth group and Rs. 758 and Rs. 695 is fixed for all of them; there are eight types of job in the seventh group and Rs. 695 and 663 per month is fixed for all of them; there are 12 job categories in the eighth group and Rs. 632 and Rs. 569 per month is fixed for all of them; there are six types of jobs in the ninth group and Rs. 569 and Rs. 537 per month is fixed for all of them; and there are eight types of jobs in the tenth group and Rs. 540 and

Rs. 500 has been fixed for all of them as minimum monthly pay. In addition they have to be paid dearness allowances for every additional point of the state average consumer price index when it exceeds 700 points.

The State Government has fixed the minimum monthly pay for the workers in clubs with effect from 26th Oct. 1987. The managers who are in the first category get Rs. 777 per month, Rs. 602 is fixed for six types of workers inclusive of assistant manager who are in the second category; Rs. 510 per month is fixed for the six types of workers which includes clerks and typists and Rs. 494 per month is fixed as minimum pay for the six types of workers including watchmen who are in the fourth category. In addition dearness allowance has to be paid for every 5 points of consumer price index exceeding 620 points

Bakeries and confectionaries

The minimum monthly-basis pay for the workers of bakeries has been fixed by the State Government with effect from 26th Oct. 1987. There are three zones pertaining to bakeries. The first zone comprises of areas coming under City Corporation, the second zone comprises of district headquarters and the third zone comprises of all other areas which do not come under the first and second zones. The monthly minimum basic pay fixed respectively for the first, second and third zones according to the categories of jobs is given below: Dough grinders Rs. 550, 500 and 450; assistants to dough maker and bakers Rs. 453, 428 and 403; helpers Rs. 363, 343 and 325; manager Rs. 600, 550 and 500; clerks Rs. 478, 428, and 403; and for watchmen, peons etc. Rs. 363, 343 and Rs. 325. In addition the dearness allowance has to be paid for every additional points of consumer price index when it exceeds 650 points.

For workers who produce sweets the State Government has fixed the minimum monthly pay with effect from 26th October 1987. There are three zones pertaining to this industry similar to those which apply to bakeries. The basic monthly minimum pay fixed respectively for the first, second and third zones according to categories of jobs are explained herein. Rs. 550, 500 and 450 for those who prepare sweets; Rs. 453, 428 and 403 for assistant confectioners; Rs. 600, 550 and 500 to managers; Rs. 478, 428 and 403 to clerks; Rs. 363, 343 and 325 for peons and watchmen. In addition they have to be paid dearness allowance in accordance with the rise in consumer price indices.

Stone Quarrying and crushing

The state Government has fixed minimum wages with effect from 24th May 1984 for the industry of quarrying stones and manufacture of metal and jelly. There are 10 categories of work in the industry. Minimum daily wage has been fixed for them ranging from Rs. 9.50 to Rs. 15. Dearness allowance is to be paid in addition to the wage.

In quarry operation there are 12 group with 23 sub-categories. Minimum daily wage as well as monthly pay has been fixed for each of them. The daily wage ranges from Rs. 9.50 to Rs. 14.25 and the monthly pay ranges from Rs. 247 to Rs. 370. They have to be supplemented with payment of dearness allowance.

Plywood and Carpentry

The Government has fixed minimum wages for the workers involved in the plywood industry with effect from 24th May 1984. Among the unskilled workers of this industry there are four categories of workers and minimum daily wage of Rs. 10.50 or a sum of Rs. 237 per month has been fixed for them. There are 17 categories of semi-skilled workers and Rs. 12.50 per day and Rs. 325 per month has been fixed for them. The skilled workers consist of three categories and Rs. 14.50 per day and Rs. 377 per month has been fixed for them. There are 9 categories of highly skilled workers and Rs. 15 per day and Rs. 390 per month has been fixed for them. Among the office personnel Rs. 15 per day or Rs. 390 per month for accountants; Rs. 12.50 per day or Rs. 325 per month for clerks and typists has been fixed. There are three other categories in the remaining group of workers whose wages has been fixed at Rs. 10.50 per day or Rs. 273 per month. All of them have to be paid dearness allowance in addition to the above wages.

Minimum wages have been fixed with effect from 9th November 1984 for the workers of timber and saw mills. There are three zones applicable to this industry. The areas under cities and Corporation come under the first zone, areas coming under the Municipalities belong to the second zone and the areas which do not come under the first and second zones comprises the third zone. For carpentry, wages have been fixed zone-wise respectively for the learners and hard labour at Rs. 11, 10.20 and Rs. 9.50 per day or Rs. 286, 265.20 and 247 per month; for semi-skilled Rs. 12.90, 11.00 and 10.20 per day or Rs. 335, 285 and Rs. 265 per month; for skilled workers Rs. 14.50, 14 and 13.50 per day or Rs. 377, 364 and Rs. 351 per month has been fixed. For the highly skilled Rs. 15, 14.50 and 14 per day or Rs. 390, 377 and 364 per month has been fixed. For the clerks of the saw mills Rs. 12.90, 11 and 10.20 per day or Rs. 335, 285 and 265 per month has been fixed. For peons and porters Rs. 11, 10.20 and Rs. 9.50 per day or Rs. 285, 265 and 247 per month has been fixed. For the un-skilled workers of this industry Rs. 10.20 per day or Rs. 265 per month, for semi-skilled Rs. 11.00 per day or Rs. 285 per month, for skilled workers Rs. 14.50 per day or Rs. 377 per month, for clerk Rs. 12.90 per day or Rs. 335 per month has been fixed. For watchmen Rs. 10.20 per day or Rs. 265 per month has been fixed. In addition all of them have to be paid dearness allowance based on the increase in the consumer price index.

Coffee Curing

The Minimum wages for the workers of Coffee Curing Works has been fixed with effect from 26th March 1986. The minimum wages fixed are as follows: For garblers per ticket or for work pertaining to 40 kgs Rs. 2.80, Rs. 10 per day; for yard workers Rs. 9.50 per day; for the garbling shed workers Rs. 12.05, for canteen supervisor Rs. 11.50, for cook Rs. 11, for the assistant cook Rs. 9.50 has been fixed. The minimum monthly pay is fixed at 450 to the foreman of the machine room, Rs. 400 for the assistant foreman, Rs. 375 for the engine operator, Rs. 350 for the assistant engine operator, Rs. 375 for the fireman, Rs. 325 for fitter, and Rs. 299 for others has been fixed as minimum wages. Rs. 520 per month has been fixed for the yard superintendent, Rs. 312.50 for the maistry, and Rs. 312.50 for the carpenter and Rs. 312.50 for others has been fixed. Rs. 312.50 for the garbling maistry, Rs. 299 for the mukadam and moopathies has been fixed as the monthly minimum pay. Among the office establishment Rs. 450 for the cashier, stenographer, and Rs. 390

per month for the clerk and typist and equivalent category has been fixed as minimum pay. In addition they have to be paid dearness allowance based on the rise in the consumers price index.

Food Processing and Oil Mills

In the rice, flour and pulses mills, the workers have the benefit of minimum wages with effect from 26th May 1984. Among the workers the highly skilled workers get Rs. 16 per day, skilled workers Rs. 15 per day, semi-skilled worker Rs. 14 per day and unskilled workers (A Group) get Rs. 10.20, and unskilled workers (B Group) get Rs. 9.50 as minimum daily wages. Rs. 390 per month has been fixed for the office establishment like clerk and typist, and Rs. 350 per month is fixed for the lorry driver as minimum monthly pay. In addition all of them have to be paid dearness allowance based on the rise in the consumer price index.

Minimum wages have been fixed for the workers of oil mills with effect from 8th May 1978. The skilled worker of 'A' group gets Rs. 7.20, skilled worker of 'B' group gets Rs. 6.50, semi-skilled worker gets Rs. 5.75 per day and the unskilled worker gets Rs. 5 per day and the clerks who belong to the office establishments and lorry driver get Rs. 210 per month as minimum wages.

The minimum wages fixed for workers of toddy tapping is classified for the three zones. They are respectively Rs. 12.90, 11 and 10.20 per day for salesman, Rs. 11, 10.20 and Rs. 9.40 for bottle fillers and bottle cleaners; Rs. 285, 265 and 243 has been fixed per month for chowkidars; Rs. 390, 370 and 350 is fixed for lorry drivers, Rs. 285, 265 and 243 for the assistants, Rs. 346, 335 and 285 for jeep drivers, and Rs. 285, 265 and 243 has been fixed for cleaners and others. In addition they have to be paid dearness allowance based on the rise in the consumer price index.

Worker in tile factories have their minimum wages fixed with effect from 11th March 1987. Rs. 22 per day has been fixed for the skilled workers, Rs. 20 for semi-skilled workers, Rs. 16 for the unskilled workers, and Rs. 20 has been fixed as minimum daily wage for the office establishment. In addition they are eligible for payment of dearness allowance based on rise in the consumer price index.

Plantation workers

Minimum wages were fixed for the workers of cinchona, rubber, tea and coffee plantations with effect from June 26, 1984. According to this the minimum daily wages are Rs. 9.35 for adults, Rs. 7.50 for adolescent, Rs. 5.60 for children. Rs. 310 per month has been fixed for supervisors and maistries; Rs. 10 per day for adults working in rubber plantation, Rs. 8 for adolescent, and Rs. 6 for children has been fixed, Rs. 330 per month has been fixed as minimum wages for supervisors or maistries.

Minimum wages have been brought into effect from 5th June 1984 for the workers of cardamom plantations. According to this the adults get Rs. 9.35 per day, adolescent gets Rs. 7.50 and children get Rs. 5.60 per day as minimum wages while Rs. 310 per month has been fixed for maistries or supervisors.

Minimum wages have been fixed for workers in sericulture sector with effect from 6th June '84. This sector too is classified into three Zones. The first Zone comprises of areas under Corporation, the second the district headquarters and the third of taluk headquarters and other areas. In accordance with the category of the jobs, the minimum wages have been furnished below as applicable to the first, second and third zones respectively. There are six categories in the division, Rs. 15, 14 and 13 has been fixed per day for the workers in grainage, Rs. 15, 14 and 13 per day has been fixed for workers in Chawki rearing and reeling division consisting of four categories; Rs. 16, 15 and 14 per day for the four categories of workers in cocoon marketing division. While fixing the minimum wages for silk farm or mulberry garden and plant protection divisions the classification of dry, wet, and gardens have been duly considered and the minimum daily wages have been fixed accordingly. Rs. 10, 12 and 14 has been fixed for those who work in silk farm sector per day, Rs. 9.50, 10.50 and 11.50 for up-rooting and picking of leave; Rs. 13, 14 and 15 for the sprayers of chemicals and fertilisers has been fixed as minimum daily wages. Rs. 9.50, 10.50 and 11.50 has been fixed for workers of plant protection division (nursery) and Rs. 9.50, 13 and 14 have been fixed per day for other workers. In addition they have to be paid dearness allowance from 20th Oct. 1986 as stipulated.

Workers of porcelain, stone and pottery industries have their minimum wages fixed with effect from 25th May 1984. Rs. 15.50 per day for the skilled workers or Rs. 403 per month, Rs. 13 per day or Rs. 338 per month for semi-skilled workers, Rs. 9.50 per day or Rs. 247 for unskilled workers. Rs. 330 per month for clerks, typists, Rs. 420 per month for the cashier have been fixed as minimum wages. In addition they have to be paid dearness allowance as admissible.

The minimum wages applicable to automobile industry has been fixed with effect from 28th June 1979. The rates are Rs. 280 per month for the highly skilled workers, Rs. 235 per month for skilled workers, Rs. 170 for semi skilled workers and Rs. 135 per month for the unskilled workers. In addition they have to be paid dearness allowance as applicable.

Minimum wages have been fixed for workers at furnaces with effect from 28th March 1979. Rs. 455 per month has been fixed for highly skilled workers, Rs. 10 for skilled workers per day, Rs. 750 per month for semi-skilled workers and Rs. 6 per day for unskilled workers, Rs. 300 per month for office establishment, Rs. 230 per month for vehicle drivers, and Rs. 156 per month for peons and watchmen.

Apart from the above, wages have also been fixed for the workers of cardamom industry both on value basis and time basis. For the leather tanner and workers of leather industry and also for workers of cotton silk, and mills minimum wages have been fixed extensively.

Minimum wages of farm workers

The Government of Karnataka has fixed minimum wages for 10 categories of farm workers in 1959. This has been revised a number of times. The minimum wages fixed by the State Government in 1959 and the rates revised in 1968 for ten categories is furnished below for dry lands, irrigated lands, and garden lands in that order. The 1968 rates are noted in peranthesis. The workers in accordance with the category of the jobs, the tiller, the digger, clod breaker, sowers of seeds, harvester, water applier, and root remover who come under the first (or A) category have

been fixed with Rs. 1.25 (1.85), 1.50 (2.20) and 1.75 (2.85) per day. The manure applicator, transplanter, weeder and harvesting worker who come under the second (or B) category have been fixed with Rs. 1 (1.45), 1.12(1.65), and 1.37(2), and the worker who graze cattle, sheep and goats come under the third (or C) category have been fixed with paise 50(75), 50(75) and 50(75) per day as minimum wages.

The data of the minimum daily wage rates inclusive of all the allowances as fixed in 1973 and 1975 as applicable to dry lands, wet land and gardens lands are furnished below with the revised 1975 rates in peranthesis. In accordance with the categories of the jobs, for tiller, digger clod breaker, seed sower, interim harvester, water applier and root remover who come under the first (or A) category have been fixed with Rs. 3.15 (4.10), 3.75(4.90) and 4.30(5.60) per day. The workers engaged in applying manure, seedling, planting, weeding, yard work, cotton picking come under the second (or B) category and their daily wages are fixed to Rs. 2.80 (3.25) 2.80 (3.65) and 3.40(4.45); for the grazers of cattle, sheep and goats who come under the third (or C) category, Rs. 1.30 (1.70), 1.30(1.70) and 1.30(1.70) per day; and for plucking coconuts and arecanuts, dehusking them, spraying pesticides and erecting fences and for other works which come under the fourth (or D) category, Rs.3.15 (4.10), 3.75 (4.90) and 4.30 (5.60) had been fixed as minimum wages inclusive of all allowances.

The State Government has fixed the revised minimum daily wages for workers of tile factory, rice mills, flour mills and oil mills with effect from 15th January 1974. The rates category-wise daily rates so fixed are furnished below: Rs. 5.05 (in tile factories) Rs. 5.40 (in rice flour and oil mills) has been fixed for highly skilled workers of A group; Rs. 4.90 (in rice, flour and oil mills) for skilled workers (A) ; Rs. 4.30 (in rice flour and oil mills) for semi-skilled workers; for unskilled workers (a) Rs. 3.90 (in tiles factories); (b) Rs. 3.75 (in rice, flour and oil mills);(c) Rs. 3.25 in rice, cotton and oil mills; Rs. 215 per month for manager of office (in rice, cotton and oil mills); Rs. 167 for clerk & typist (in tile factories); and Rs. 162 (in cotton rice and oil mills); Rs. 167 for cashiers (in tile factories); Rs. 167 for store keeper (in tile factories); and Rs. 162 (in rice cotton & oil mills) per months had been fixed.

The revised minimum wages which were in force in March 1980 has been furnished herewith in accordance with the category of jobs respectively for dry lands, wet lands and garden lands. For tilling digging clod breaking, sowing interim harvest, irrigation etc., works which come under the first category Rs. 4.10, 4.90 and 5.60 has been fixed per day; for planting seedling, applying manure, harvesting work, and cotton picking works which come under second category Rs. 3.25, 3.65 and 4.45 had been fixed per day and for grazing cattle, sheep and goats which come under the third category, Rs. 1.70, Rs. 1.70 and Rs. 1.70, for dehusking coconut and arecanut Rs. 4.10, 4.90 and 4.60 while Rs. 4.10, 4.90 and 5.60 was fixed for spraying pesticides and fencing, and Rs. 4.10, 4.90 and 5.60 per day for other workers related to gardening.

The minimum wages fixed in March 1980 was in accordance with the classification of jobs as noted below. The A and D group workers Rs. 48.75 per month along with of food and clothes or Rs. 97.30 without food and clothes had been fixed. For B group workers Rs. 31.60 with food and clothes per month, or Rs. 48.75 without food and clothes had been fixed per month. For C group

workers, Rs. 16.25 per month with food and clothes or Rs. 48.75 per month without food and clothes had been fixed.

The detailed tabulation of wages of unskilled farm workers is given in Tables 25 and 26. (For Table 26 see pages 460 to 463).

Table No. 25

Table showing daily wages earned by non-agricultural workers in Rs.

Type of Employee	1985	1986	1987	1988	1989
Carpenter	27.20	30.00	40.00	43.00	46.00
Smith	21.60	21.75	24.50	25.00	26.00
Cobbler	15.08	15.25	16.00	16.50	17.00

Source : Office of District Statistical officer, Madikeri

STANDARD OF LIVING

Kodagu was self-sufficient in respect of food and other facilities for many centuries. The valley and slopes of the hills were very fertile and are congenial for agricultural development. The main food crop of the district is paddy. As a result of the extension of coffee plantations in vast area of the district in the latter half of last century the level of income of the people rose. The income and standard of living of the people was much higher than that of the workers who came into Kodagu. The standard of living and income level of the people of the district are high but the same cannot be compared with that of other districts due to very poor developments of the towns of the district. However the district has achieved substantial progress in the field of education. The increase in the price of coffee has resulted in increasing the level of income of coffee planters. The standard of living of workers also has risen as a result of the many facilities they are being provided in accordance with the Labour Legislation.

To assess the standard of living it becomes necessary to classify the people of the area into various groups and assess the standard of living of each group. When classified as poor, middle class and rich it is observed that the large number of wage earners come into the category of poor; government officials, employees of private institutions and businessmen are seen in the middle class and the big landlords and those having fixed income are seen in the category of the rich.

The number of landless farm workers are very high in rural areas. The income level of farm workers is very low as agriculture provides them only partial employment. The income of those who work in coffee estates is insufficient for them to make both ends meet as they are not having work in the rainy season. Similarly small land holders also cannot make both the ends meet with their meager income and hence their standard of living also is at a lower level.

In Kodagu land holders having more than five acres are in large scale. There are on an average, six to eight persons in every family. the source of their income is mostly agricultural

Table No 26

The Daily Wages of Nonskilled Farm Workers of Kodagu District from 1985 - 1989

Name of job	1985						1986					
	Dry lands		Wet lands		Garden lands		Dry lands		Wet lands		Garden lands	
	M	F	M	F	M	F	M	F	M	F	M	F
1	2	3	4	5	6	7	8	9	10	11	12	13
Tilling	12.00	-	12.11	-	-	-	13.50	-	13.00	-	-	-
Digging	12.00	-	12.00	-	11.86	8.0	12.50	-	-	-	15.00	12.00
Breaking clods	12.00	-	-	-	-	-	13.00	-	-	-	-	-
Sowing	12.00	10.00	11.80	-	-	-	12.50	10.50	12.00	-	-	-
Interim Harvesting	-	-	-	-	10.00	8.50	-	-	-	-	12.00	10.00
Irrigating	-	-	-	-	-	-	-	-	-	-	-	-
Manuring	11.67	10.00	12.11	10.28	11.00	9.00	12.00	10.00	12.00	10.00	15.00	12.00
Planting (seedlings)	11.75	10.50	12.14	10.40	10.00	8.00	12.00	11.00	12.50	12.00	12.00	10.00
Weeding	12.00	10.00	12.33	10.50	11.00	9.00	12.00	10.00	13.00	11.00	11.50	10.00
Harvesting	12.00	10.00	12.00	10.00	-	-	12.50	10.50	12.00	10.00	-	-
Thrashing	12.15	10.50	12.50	10.50	-	-	12.00	10.50	12.50	10.50	-	-
Grain screening (Throwing)	12.00	10.00	12.00	10.00	-	-	13.00	11.00	14.00	12.00	-	-
Picking Coffee	-	-	-	-	15.00	12.00	-	-	-	-	15.50	12.50
Grazing Cattle, Sheep & goats	5.50	-	-	-	-	-	5.75	-	-	-	-	-

Name of Job	M	F	M	F	M	F	M	F	M	F	M	F
Picking Arecanut & Cashew	-	-	-	-	15.00	12.00	-	-	-	-	16.50	13.50
Picking Cerdamom	-	-	-	-	13.20	9.50	-	-	-	-	16.00	12.50
Picking pepper	-	-	-	-	18.00	-	-	-	-	-	20.00	-

Table No 26 (continued)

Name of Job	1987						1988					
	Dry lands		Wet lands		Garden lands		Dry lands		Wet lands		Garden lands	
	M	F	M	F	M	F	M	F	M	F	M	F
Tilling	15.00	-	15.00	-	-	-	15.00	-	16.00	-	-	-
Digging	15.00	-	15.00	-	16.00	12.50	15.00	-	16.00	-	17.00	14.00
Breaking Clods	14.00	-	-	-	-	-	15.00	-	-	-	-	-
Sowing	15.00	12.00	12.00	-	-	-	15.00	12.50	15.00	12.00	-	-
Interim harvesting	-	-	-	-	14.00	11.00	-	-	-	-	15.00	13.00
Irrigating	-	-	-	-	-	-	-	-	-	-	-	-
Manuring	15.00	12.00	15.00	12.00	15.00	12.00	15.50	13.00	15.00	12.00	16.50	12.50
Planting (seedling)	15.00	12.00	15.00	12.00	12.50	11.00	15.00	12.00	18.00	15.00	13.00	12.00
Weeding	14.00	12.00	14.00	12.00	12.00	10.00	16.00	13.00	16.00	12.50	12.00	10.50
Harvesting	14.00	12.00	15.00	12.00	-	-	15.00	12.50	15.00	12.50	-	-
Thrashing	15.00	12.00	15.00	12.00	-	-	16.00	12.00	15.50	12.00	-	-
Grain screening (Throwing)	15.00	12.00	14.00	12.00	-	-	16.00	12.00	15.50	12.00	-	-

	M	F	M	F	M	F	M	F	M	F	M	F
Picking Coffee	-	-	-	-	18.00	15.00	-	-	-	-	18.00	15.00
Grazing cattle sheep & goats	7.00	-	-	-	-	-	7.25	-	-	-	-	-
Picking cashew & arecanut	-	-	-	-	18.00	13.00	-	-	-	-	20.00	15.00
Picking cardamum	-	-	-	-	16.00	12.50	-	-	-	-	16.50	13.00
Picking pepper	-	-	-	-	25.00	-	-	-	-	-	28.00	-

Table No 26 (continued)

Name of Job	1989					
	Dry lands		Wet lands		Garden lands	
	M	F	M	F	M	F
Tilling	16.00	-	18.00	-	-	-
Digging	16.00	15.00	16.00	15.00	18.00	15.00
Breaking clods	16.00	-	-	-	18.00	15.00
Sowing	16.00	12.50	15.00	12.00	-	-
Interim harvesting	-	-	-	-	16.00	13.00
Irrigating	-	-	-	-	-	-
Manuring	16.00	13.50	16.00	13.50	16.50	14.00
Planting (seedlings)	17.00	15.00	17.00	14.00	14.00	13.00
Weeding	16.00	13.00	17.00	15.00	20.00	18.00
Harvesting	15.00	12.50	18.00	15.00	-	-

Name of Job	M	F	M	F	M	F
Thrashing	16.50	12.00	19.00	16.00	-	-
Grain screening (Throwing)	16.00	12.00	16.00	15.00	-	-
Picking Coffee	-	-	-	-	22.00	20.00
Grazing Cattle, sheep & goats	8	-	-	-	-	-
Picking cashew & arecanut	-	-	-	-	22.00	20.00
Picking Cardamum	-	-	-	-	20.00	16.00
Picking pepper	-	-	-	-	30.00	-

production and animal husbandry. However the income from these sources have proved to be insufficient for procuring essential commodities at the recent increased rates and hence their standard of living also not improved and has remained at lower level. The monthly wage workers in urban areas do not transfer enough pay for procuring the essential commodities as required and hence their standard of living is also lower than that of farm workers and small land holders. The standard of living of the workers of coffee estates has slightly improved as a result of their getting daily or monthly wages in accordance with the Minimum Wages Act. Much of the earning of the government officials and employees of private institutions, who belong to the middle class, is consumed by house rent and education of children, and their standard of living has not improved. Though the income level of persons engaged in private enterprises like doctors, lawyers, businessmen and others is high, as a result of competition in their professions, their standard of living is subject to fluctuations. The rich persons in Kodagu are coffee and cardamum planters and orange growers. They possess the facilities required for modern living and are comfortable in life.

Table No. 27

Table showing the consumer price indices applicable to workers of Madikeri from 1988 to 1990 with base at 100 in 1982.

Year	Month	Food Index	General Index
1988	October	176	161
	November	171	159
	December	168	157
1989	-	173	162
1990	-	183	173

Source : Labour Bureau, Shimla.

EMPLOYMENT

Kodagu district is mainly agriculture - oriented and agriculture and agro-based industries form the prominent source of employment. In the days of monarchy there was scope for employment in the army, as palace guards, services, music, arts and such sectors. Skilled and un-skilled used to get jobs in construction of palace, temples, ponds and tanks etc. There were also occasions when farmers from other districts were invited and given lands with a view of extending agriculture. The skilled artisans were engaged in manufacture of embroidered clothes required for wearing at functions, production of carved swords etc. But they were very small in number. Post-1850 developments of coffee estates provided large scale employment to the hard labour. Several industries which have come up in recent years have provided large scope of employment to skilled workers as well as hard labour. In the past workers used to get their wages in kind. Though cash is the medium of payments in all sectors, the medium of payment in kind is still seen to a little extent in rural areas.

There were 1,52,838 employees in Kodagu district in 1971 which formed 40.40 percent of the total population of the district. By 1981 it increased to 2,08,700 covering 47.27 percent of the population. According to livelihood classification the total number of workers in 1981 and 1971 were as follows: 1971 figures are in brackets. Farmers 48,643 (35,996), farm labourers 33,024 (30,053), mine workers 75,754 (44,831), workers of household articles and other industries 11,199 (7,400), those engaged in construction of roads and buildings 5,214 (4,863), engaged in commerce and business enterprises 12,382 (8,689), engaged in transport and communication 5,291 (2,824), and workers in other services 17,193 (18,073). There are three medium scale industries in the district and they provided employment to 830 workers by end of 1990. In the same period there were 1,171 registered small scale and tiny industries which provided employment to 5,080 workers. There are also numerous unregistered small-scale industries which have provided employment in large scale. In addition, Khadi and village industries, bee keeping, handicrafts, handloom industry etc., have also provided employment to a substantial extent.

The Central Government opened an employment exchange at Madikeri on 1.4.1940. This came under the administration of the State Government after Reorganisation of States in 1956.

Table No. 28

The number of persons who registered, notified vacancies and those who secured jobs in Kodagu from 1961-1976.

Year	No. of persons Registered	No. of vacancies notified	Vacancies filled up
1961	1,395	831	760
1962	1,692	983	867
1963	1,968	460	448
1964	2,295	865	612
1965	2,497	498	397
1966	2,180	494	356
1967	2,732	511	503
1968	3,408	446	281
1969	3,403	601	451
1970	3,395	451	325
1971	4,094	584	442
1972	4,591	273	218
1973	4,670	330	274
1974	4,988	159	159
1975	5,505	239	229
1976	5,508	408	359

Table No 29

The number of Persons who got themselves registered in Kodagu District Employment Exchange from 1980-81 to 1989-90 as per educational qualifications

466

Sl. Educational No. Qualification	1980-81		1982-83		1984-85		1986-87		1987-88		1988-89		1989-90	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1. Graduates														
(a) Arts	331	328	336	328	403	320	394	367	465	375	293	162	289	215
(b) Science	99	65	103	63	107	83	112	80	127	99	98	77	61	84
(c) Commerce	101	20	112	29	157	51	187	70	232	98	179	102	176	120
2. Diploma holders														
(a) Civil	4	-	5	1	8	-	11	-	15	-	16	-	19	-
(b) Mechanical	6	-	10	-	24	-	19	-	21	-	21	-	25	-
(c) Electrical	3	-	5	-	15	-	15	-	16	-	5	-	8	-
(d) Automobile	1	-	4	-	-	-	-	-	-	-	6	-	8	-
3. I.T.I.														
(a) Fitter	3	-	10	-	14	-	16	-	23	-	23	-	45	-
(b) Turner	8	-	11	-	9	-	10	-	14	-	14	-	20	-
(c) Machinist	1	-	5	-	5	-	12	-	29	-	33	-	37	-
(d) Electrecial	6	-	6	-	9	-	6	-	19	-	10	-	10	-
4. Typists	31	28	37	119	64	188	90	249	103	338	91	338	110	399
Stenographer	5	3	1	4	1	15	-	10	-	15	-	22	1	25
5. (a) C.P.Ed	2	4	6	5	11	-	19	22	25	23	22	26	33	27
(b) T.C.H.	25	190	68	208	70	274	66	391	69	467	75	407	79	479

Kodagu District

	M	F	M	F	M	F	M	F	M	F	M	F	M	F
6. Nursery	-	4	-	6	-	30	-	43	-	43	-	42	-	37
7. Drivers (Heavy)	10	-	77	-	117	-	132	-	229	-	153	-	195	-
Drivers (Light)	78	-	144	-	131	-	203	-	169	-	221	-	242	-
8. P.U.C.	310	301	371	368	655	485	828	580	928	812	907	286	748	725
9. S.S.L.C.	1,358	683	1,399	724	1,812	971	2,836	1,508	3,264	1,880	2,731	1,223	2,875	1,245
10. Middle School	918	102	963	204	1,521	266	2,087	418	2,221	543	2,057	6,582	2,115	495
11. Literates	241	41	228	61	459	165	638	248	814	312	523	356	422	282
12. Illiterates	560	246	621	320	39	106	296	328	367	269	243	251	79	71
Total	4,101	2,025	4,522	2,439	5,631	2,954	1,967	4,314	9,550	5,274	7,721	9,874	7,597	4,204

Source : Employment Exchange, Madikeri.

Table No. 30

No of cases registered in the live register of Kodagu District Employment Exchange from 1980-81 upto 1989-90.

Year	Men	Women	Total
1980-81	4,101	2,025	6,126
1981-82	4,608	2,374	6,982
1982-83	4,522	2,499	6,971
1983-84	4,867	2,647	7,514
1984-85	5,431	2,954	8,385
1985-86	6,692	3,573	10,265
1986-87	7,967	4,314	12,281
1987-88	9,550	5,274	14,824
1988-89	7,721	3,950	11,671
1989-90	7,591	4,204	11,801

Source: Dist. Employment Exchange, Madikeri

Table No. 31

No. of Vacancies notified, Nos. filled up through advertising, yearwise from 1981-82 upto 1989-90 and the number of vacancies remaining at the end of each year.

Year	Notified Vacancies	Vacancies advertised	Vacancies filled up during the year	Remaining Vacancies unfilled
1981-82	2,284	235	151	108
1982-83	3,024	197	212	205
1983-84	2,322	312	320	85
1984-85	4,164	487	361	356
1985-86	3,117	282	375	154
1986-87	2,852	192	135	162
1987-88	3,439	237	190	165
1988-89	2,376	138	143	94
1989-90	3,025	142	230	68

Source: District Employment Exchange, Madikeri.

Table No. 32

Yearwise Number of persons who secured jobs through District Employment Exchange from 1980-81 to 1989-90 in Government & non- Govt Sectors.

Year	Central Govt.	State Govt.	Semit-Govt. institutions (Central)	Semi-Govt. institutions (State)	Local bodies
1980-81	5	48	19	8	1
1981-82	7	55	21	2	2
1982-83	6	51	18	2	3
1983-84	30	72	38	4	1
1984-85	15	55	38	3	4
1985-86	10	44	22	9	-
1986-87	7	52	19	8	3
1987-88	12	43	24	6	3
1988-89	6	21	17	5	2
1989-90	6	59	16	8	3

Source: District Employment Exchange, Madikeri

INCOME

As per the current rates the total income of the district and *per capita* income from 1960-61 to 1979-80 was as follows (rupees in lakhs) (*per capita* figures are furnished in rupees in brackets). They were Rs. 2,328(727.50) in 1960-61, Rs. 6,921 (1850.53) in 1970-71, 10,571 (2,535.01) in 1975-76, Rs. 11,102 (2,528.93) in 1978-79 and Rs. 12,807 (2877.98) in 1979-80, as per the Statistics compiled by the Directorate of Bureau of Economics and Statistics. In 1990-91 the total income of the district was Rs. 372 crores, of this Rs. 237.5 crores came from farm sector Rs. 4.7 crores from forest products, Rs. 15.2 crores from construction, Rs. 10.8 crores from transport, Rs. 42.4 crores from business and hotel industry, and Rs. 61.4 crores came from other sources. In 1987-88 the total income of the district was about Rs. 254 crores and *per capita* income was Rs. 4,802. Of the total income of the district Rs. 149 crores came from farm sector, Rs. 9 crores from forest products, Rs. 13 crores from construction, Rs. 10 crores from transport, Rs. 13 crores from business and hotel industry, and Rs. 49 crores have come from other sources.

The *per capita* income in Kodagu district in 1960-61 was Rs. 4,728 and it stood first in the whole state. In 1970-71 its *per capita* income was Rs. 2,008 and still retained its status at the top of the list. In 1980-81 it increased its *per capita* income to Rs. 3,126 and continued in the first place. In 1989-90 though its *per capita* income increased to Rs. 5,382, the district slipped to the second place (In 1989-90 Bangalore District stood first). The average *per capita* income of the state in the year was Rs. 2,182.89.

Table No. 33

**The Yearwise Income of the District at Current and Fixed Prices from
1980-81 to 1986-87**

Particulars	1980-81	1982-83	1983-84	1984-85	1985-86	1986-87
1. District total Income (in Rs. lakhs)						
(a) at current prices	12,564.00	17,034.00	20,142.00	28,779.00	22,153.00	27,803.00
(b) at fixed Prices (1970-71)	7,678.00	8,662.00	7,721.00	10,995.00	7,815.00	9,915.00
2. Districts per-capita income (in rupees)						
(a) at current prices	2,755.26	3,556.16	4,094.00	5,780.08	4,359.00	5,363.23
(b) at fixed prices (1970-71)	1,683.77	1,808.35	1,569.63	2,208.27	1,538.08	1,912.62

Source : Taluk-wise plan figures (Kodagu District) 1986-87.

Table No. 34

**Table showing sector-wise income of the district in 1980-81, 1985- 86 and 1989-90 (At
current and fixed prices)**

Sl. No.	Sectors	1980-81	1985-86	1989-90
1.	Agriculture, Animal Husbandry including Horticulture	9,059	16,292 (10,222)	15,362 (7,932)
2.	Forest	992	1,731 (458)	1,443 (382)
3.	Fishery	13	12 (9)	8 (8)
4.	Mines & Mineral Wealth	-	1 (-)	2(1)
5.	Production			
	(a) Registered	46	148 (92)	326 (215)
	(b) Un-registered	344	579 (394)	1,107 (553)
6.	Construction	502	1,122 (628)	1,781 (697)
7.	Electricity, gas and water supply	44	121 (67)	168 (86)
8.	Transport	222	763 (432)	1,149 (564)
9.	Warehouse	2	6 (3)	12 (6)
10.	Communications	68	146 (96)	413 (102)
11.	Business & Hotels	1,583	3,221 (1,644)	3,298 (1,577)
12.	Bank and Insurance	250	615 (404)	704 (350)
13.	Estate Agency Services	461	759 (567)	1,154 (664)
14.	General Administration	223	493 (318)	1,019 (478)
15.	Other sources	437	927 (598)	1,532 (713)

Figures in brackets show 1980-81 income at fixed prices.

Source: District Income Assessment 1980-81 to 1989-90 Directorate of Economics and Statistics, Bangalore.

PLANS' TARGETS AND ACHIEVEMENTS

Five Year Plans have been instrumental in pushing the district in the path of progressive development in the socio-economic sectors like agriculture, industry, animal husbandry, forest, co-operative movement, education, panchayat raj, social welfare etc. In the First Plan a target of Rs. 73 lakhs was fixed for the Coorg State. It was revised to Rs. 116 lakhs. Rs. 92.58 lakhs were spent during this plan period. In this plan period agriculture, education, roads transport and power had priority among the plans drawn up. In the same period 11,530 acres of additional lands were developed into cultivable lands and additional food grains of 1,300 tons were produced. Prominence was given to intensive cultivation and animal husbandry. Apart from improving the standard of the veterinary hospitals in the district, 16 rural veterinary schools, the artificial insemination centres, seven insemination sub-centres and a cattle centre (*gosadana*) were opened. The small poultry farm which was operating in the veterinary school was converted into independent poultry farm besides improving it with modernisation. The arrangements for the vaccine required for injecting cattle for curing and prevention of the rinderpest (*doddaroga*) was enlarged. Fourteen pedigree seed "bulls" were provided to the Kudige Dairy Farm for cattle development. Along with modernising the fisheries, fishings were introduced in 70 tanks for rearing. Work was taken afoot for growing teak in 600 acres per year for forest development. In addition matchwood in 150 acres, cashew in 100 acres were planned to be grown. In the same period a government saw mill was started. In this Plan period 44 co-operative societies were founded with 14,136 additional members. For facilitating storage of food grains in Marketing Co-operative Societies the capacity of existing warehouses were expanded besides constructing three new warehouses thus facilitating storage for 5,000 tons of food grains; 58 wells were dug in rural areas for public health improvement in addition to repairing 242 old wells and two protected water supply schemes were implemented. Drainage schemes and construction of shops were completed in this plan period. The number of quarters for hospital employees, labour wards and hospitals and dispensaries were increased during the plan period.

During this Plan construction of four important highways and six bridges were completed at an expenditure of Rs. 24.67 lakhs, besides 15 roads 17 bridges and canals were taken up under State Road development plan. The Government Central Workshop was equipped with modern machines at a cost of Rs.2.71 lakhs under the plan for Transport. Under the Minor irrigation programme 171 agriculture tanks and canal and such other works were completed, and 111 works were under execution by the end of this Plan. This resulted in providing irrigation facility to 8,000 acres. Two thermal power stations were constructed at a cost of Rs.11.50 lakhs and the power distribution system was improved in this period. Opportunity was provided for assembling an exclusive diesel set for one thermal power station.

Attention was bestowed on development of cottage industries like bee keeping, handloom weaving, pottery, silk etc. One pottery centre with modern equipments and a bee keeping centre with 10 sub-centres were founded. Two handloom weaving centres were also initiated during this Plan. Rs. 10.09 lakhs were spent on education at all levels. The Intermediate College was upgraded as First Grade College besides providing hostel facilities to the students. One Basic Education Training College was started at Kudige with residential facilities. Lower and higher basic

education schools were functioning during this plan period. A Janatha College was opened at Kudige with a view to provide education facilities to adult farmers.

For implementing certain schemes which come under the purview of the Central Government Rs. 53.18 were spent during this plan. The Community Development Project which was started all over the country was started on 2nd October 1952 in Somvarpet block of the district. This was extended to Madikeri, Bhagamandala, Napoklu, and Suntikoppa areas on 1st October 1953. Further the National Development Programme was implemented in Virajpet, Ammathi, Ponnampet and Srimangala. By the end of the Plan, the entire Kodagu district was covered under the Community Development Project. Rs.20.77 lakhs were spent in 14 Community Development Sectors under the Central Plan, and Rs. 1.45 lakhs were spent in the local development works sector. For the welfare of Schedule Castes and Scheduled Tribes 948 houses were constructed at an expenditure of Rs. 9.02 lakhs. In addition they were provided facilities for education, health, handicrafts, etc. during this Plan period.

Second Plan

Even before the Re-organisation of States the Second Plan had been finalised and Rs.375.58 lakhs were fixed for Kodagu province which merged with the new State of Mysore as a district. Due to administrative difficulties works could not progress systematically and there were variations in the targetted expenditure and aims and hence by the end of the Plan Rs. 332.73 lakhs had been spent; 4630 acres additional lands were utilised against a target of 3000 acres and 6,437 tons of additional foodgrains were produced. The average yield of paddy increased from 1,800 pounds per acre to 2,500 pounds per acre by the end of the Plan. A taluk seed production centre was started with 23 acres of land. 8,921.41 tons of various fertilizers were distributed in the district; 10.96 lakhs tons of manure was produced in rural composts. Two cardamum nurseries were opened and 1.02 lakh cuttings were distributed.

As regards Horticulture 5,665 acres of land were developed afresh while 14,714 acres of old garden lands remodelled and developed. In the same period two new types of fruits were introduced and were grown. They were 'Coorg Honey Papaya' and Butter fruit. Minor irrigation facilities increased by up to 2730 acres during this Plan period. A village level workers training centre along with necessary workshop was opened in the district and not only 48 candidates as targetted were trained, at the end of the plan 63 candidates were undertraining. Rs. 4.20 lakhs was spent for this purpose. Under the Animal Husbandary programme one cattle shed, two key village centres, five Artificial Insemination Centres with 40 insemination 'seed bulls and two poultry farms were thrown open. In the same duration a milk processing unit was started at an expenditure of Rs. 4.75 lakhs and by the end of the Plan it was processing 4,000 litres of milk per day. Under fisheries 1.81 lakh fishlings were reared in 80 tanks and 18,053 lbs of fish were sold.

In the same period Rs. 7.75 lakhs were spent for forest development and in addition to the ordinary varieties of tree forest, teak, match wood and such costlier varieties of trees were grown in 1,875 acres. Protected forest was developed in about 100 square miles.

In this plan period the co-operative societies and banks were re-organised and 29 new co-operative societies with 6,722 members started functioning. Against three land development

banks targetted under this plan two banks were started. Twenty warehouses were constructed. Three Community Development Centres in the district reached the second stage in this Plan period. One medium irrigation project for irrigating 3,167 acres of land was commenced and about Rs. 8.79 lakhs were spent. For supplying power to four Rural habitations and for formation electrical grid Rs. 12.50 lakhs were spent. Rs. 46.65 lakhs were spent for construction of a major bridge and for improving 195 miles long roads.

Rs. 3.92 lakhs were provided during this plan from Khadi and Village industries Board for the bee keeping, pottery schemes which were commenced in the first Year Plan. Mulberry cultivation was started in 15 acres at an expenditure of Rs.2.30 lakhs in addition to which 77 farmers were trained and encouraged to grow mulberry in 151 acres by extending financial assistance to private people. Rs.12.22 lakhs were spent for public instruction (education) facility. During the Plan period two high schools were converted into multi-purpose schools and 24 primary schools were converted into Basic Education Schools. Apart from this Basic Education Training College was founded and strengthened.

Two tuberculosis dispensaries and two dental dispensaries were opened for providing increased medical facilities. The General Hospital was well equipped with modern equipments and additional staff. Maternity and paediatric hospital was commissioned. Rs. 3.21 lakhs were spent during this Plan period for medical facilities. Under the Health plan a District Health laboratory and the Health Centres were targetted and by the end of the Plan, one unit was nearing completion. In the same duration 50 drinking water wells were sunk while six water supply schemes which had been commenced in the First Plan were completed. Three Family Planning Centres were opened in the three General Hospitals. Rs. 2.04 lakhs were spent during this Plan for this purpose.

For development of Scheduled Castes, Scheduled Tribes, and backward classes 1,581 houses, 43 wells, 6 students hostels, two Ashram schools, 18 buildings, 8 Community Centres, and six women development centres were constructed at an expenditure of Rs.20.84 lakhs. About 1000 families were encouraged to take up handicrafts; Rs.0.23 lakhs for Tourism Development and Rs.1.16 lakhs for Rural Development scheme were spent in this Plan period.

Third Plan

The draft for the Third Plan was prepared with the aim of increasing the potential of food and other agricultural productions. The position of Kodagu district in the rank order among the districts of the state at the commencement of this Plan noted in brackets is given here. Population intensity(3), percentage workers in 1961 of total population (2), percentage of extent of land held by each farmer(4), percentage of net sown area belonging to each farmer in 1961-62(7), percentage of net irrigated area of net sown area in 1961-62 (13), percentage of additional sown area in 1961-62 (17), quantum of agricultural production of each farmer in rural area in 1960-61(1), number of persons per lakh of persons enrolled as workers in factories in 1962(14), length of road per 100 sq kms in 1962-63 (6), transportation of goods per lakh of population in 1962-63 (8), quantum of educated persons per lakh in 1961(1), number of persons who had technical education per lakh of population in 1963-64(5), and hospital facility per lakh population in 1962(1).

In respect of agriculture, irrigation, modern agricultural implements, fertilisers etc Rs. 2.99 lakhs had been provided in the Third Plan. Under this Plan 100 installing oil engine pumpsets and other modern agricultural production programmes were proposed to be implemented. Procurement of one thousand tonnes of fertilizers, 96,000 tonnes rural manure, and usage of green manure in 36,000 acres was targetted. Also for growing Japan pattern paddy in 10,000 acres and for growing high-yielding varieties of crops in 34,000 acres, a target of 700 demonstration plots and supply of 800 agricultural implements were fixed and it was also proposed to hold competition in obtaining high yield. With a view of growing disease-free crops it was proposed to develop the plant protection centres for supplying needy farmers with high quality disease - free seedlings. It was proposed to spend Rs.1.80 lakhs to purchase 1,600 agricultural equipments with a view to take up additional land for agricultural purpose. Rs. 8.23 lakhs was targetted to be spent for development of commercial crops such as orange cardamum, pepper, arecanut and cotton. Fruit production scheme has been continued in this Plan period on an extended basis. Developing new orchards in 1,300 acres, improving and developing existing 2,000 acres of orchards and raising 2.30 lakh seedlings of the orange clan etc were provided with Rs. 4.02 lakhs in this Plan period. Rs. 3.00 lakhs were spent for developing cardamum through 750 demonstration plots for improving 1,000 acres of additional area and with a target of raising one lakh seedlings in each plot, two nurseries were established. It was proposed to extent easy loan facilities to the farmers involved in these crops. In addition to the existing area of growing pepper there was a plan to develop the same in 1,500 acres besides establishing two nurseries at a cost of Rs.1.20 lakhs were some of the targets. In the same period starting a nursery for development of arecanut with a view of raising two lakh seedlings annually was also targetted. Under the Cotton Development Programme production of 5,000 bales of additional cotton by growing cotton in additional 10,000 acres was also aimed at.

It was planned to spend Rs.22.06 lakhs for agricultural research during this Plan. In addition to continue a agricultural farm under the guidance of paddy production experts the Regional Fruit Research Centre at Chattally was converted into Fruit Research Centre for Malanad areas of the southern zone, and its functioning capability was increased. The citrus die-back research scheme was proposed to be continued. It was also proposed to continue the Regional Research Centre which was established in Chattahalli in 1960-61 an expenditure of Rs. four lakhs in the Plan. It was decided to extent the programmes of growing cloves and *nutmeg*, which was initiated in 1960-61 for two years of the Plan period with the assistance of this centre. It was proposed to continue the Cattle Feed Production Programme at Kudige with an assistance amounting to Rs. 86,000. It was intended to continue the village level workers training centre at Kudige at an expenditure of Rs. 13.37 lakhs, in addition targets were fixed for providing intensive training for 120 candidates for two years and also for training 20 candidates in the workshop with an one year course. It was decided to continue the youth training centre here at an expenditure of Rs. 20,000. It was also decided to spend Rs. 30,000 for training to few selected village level workers and children of farmers through the Modern Agriculture Training Centre during this Plan period.

In respect of Minor Irrigation, Rs. 9.00 lakhs were provided for construction of new tanks, restoration of old tanks, desilting, construction of new channels etc with a target of providing irrigation facilities for 1,460 acres. Rs. 6.60 lakhs was earmarked for lift irrigation schemes. 125 irrigation wells, 50 tubewells, 50 electrical pumpsets and 30 diesel pumpsets were targetted for construction and supply during this Plan.

For soil conservation Rs. 1.95 lakhs were provided with an intention of transforming about 5,000 acres of barren lands into cultivable lands. It was intended to spend Rs. 1.10 lakhs through the Forest Department to prevent soil erosion in 900 acres. Establishing 4 new rural Veterinary Dispensaries at a cost of Rs. 5.17 lakhs and upgrading these Veterinary Dispensaries into full scale Veterinary Hospitals for improving the cattle wealth was planned. For providing 15 stud bulls free of cost to the needy beneficiaries, and supplying semen for 120 cattle through semen collection centre at concessional rates were incorporated in the Plan along with establishing a clinical laboratory at an estimated cost of Rs. 50,000. It was planned to spend Rs.1 lakh for poultry farm at Kudige with an intention of increasing the capacity of the Poultry from 500, to 1,000 birds and increasing the capacity of two units, and also providing training for 60 persons. It was also targetted to increase the capacity of the Kudige Dairy Farm from its strength of processing and supply of 1,000 lbs of milk at the end of Second Plan to 8,000 lbs at an expenditure of Rs. 3.00 lakhs. A target of rearing 10 lakh fishlings was fixed at an expenditure of Rs.1.20 lakhs for development of fishery. Rs.23 lakhs were provided for various schemes of forest development and a target of growing valuable trees in 1,100 acres at an expenditure of Rs. 1.30 lakh had been fixed. Raising highly valuable teakwood in 1000 acres at the rate of 200 acres per year at a cost of Rs. 1.50 lakhs was planned. In addition, it was intended to raise new forest in additional 185 acres per year and also Rs. 1.00 lakhs were earmarked for improving the protected forest with an intention of making it a tourist centre, Rs. 2.50 lakhs for construction of quarters for the employees, Rs. 1.25 for establishing a flying squad, Rs.9.00 lakhs for construction for transportation forest produce, Rs.1.05 lakhs for farm forestry, Rs.2.90 lakhs for tree protection site and Rs.1.45 lakhs for growing matchwood were provided in the plan. The plan also provided for earmarking 4,200 acres for providing fuel and grass and 1000 acres for providing matchwood.

It was targetted to spend Rs. 6.98 lakhs for development of various schemes of co-operative Societies. Two branches of District Central Co-operative Bank, increasing the strength of the bank's supervisory staff, establishment of 50 service co-operative institutes, construction of 20 warehouses, establishing 15 Primary Marketing Co-operative Institution, etc were some of the programmes drawn out during this plan period.

During this Plan it was intended to spend Rs. 4.10 lakhs in rural area for development of small scale industries. High prominence was given for silk and bee-keeping etc at a cost of Rs. 3.96 lakhs, in addition to construction of Industrial Estate, training facilities to various artisans and providing financial assistance to them, establishing Ceramic Art (Kumbha Kale) Centre at Madikebeedu at an expenditure of Rs. 2.10 lakhs, development of handloom industry and encouragement to handicrafts.

Under the compulsory education programme Rs. 5.30 lakhs were provided for appointing 150 teachers and construction of 30 school rooms. Improving the strength of basic education schools, as well as multipurpose schools, appointment of additional teachers and inspectors and development of girls schools were some of the progressive programmes which were started during this Plan period. A Polytechnic Institute was started in this Plan period at an expenditure of Rs. 19.00 lakhs.

Regarding provision of facilities to rural areas one town water supply and 13 rural water supply schemes were implemented. About 268 public drinking water wells were sunk under various schemes. During this plan 217 village had drinking water facility, and additional 80 villages were expected to get this facility. It was targeted to provide drinking water at eight places under the National Rural Water Supply Scheme at an expenditure of Rs.3.33 lakhs. It was also proposed to spend Rs. 1.00 lakhs for providing drinking water to towns.

Pertaining to health and hospitals it was intended to implement the ideals of the Second Plan during this Plan. Establishment of three birth control centres, continuing the district laboratory by spending Rs. 50,000 and to continue the district birth control committee at an expense of Rs. 10,000, increasing the facilities in existing hospitals etc were important programmes of this Plan.

Regarding transport facilities it was intended to spend Rs.13.40 lakhs for implementing the programmes of the old and the new Plan. Transforming 30-mile tracks into metal road at an expenditure of Rs. 3 lakhs, improving roads at an expenditure of Rs. 1.20 lakhs, construction of major bridges by spending Rs.9.20 lakhs were some of the programmes drawn in this Plan.

The house building programme which was commenced in the Second Plan period was continued in the Third Plan. Fifteen villages from these sectors of the district were brought under the purview of this programme and it was intended to adopt one village every year; 294 houses were aimed at for construction during this Plan with a target of 42 houses in the first two years, 60 houses in the third year and 75 houses in the last two years of the Plan.

Extensive programme was drawn for development of Schedule Castes, Schedule Tribes and backward classes besides prominence for development of Schedule Tribes. Rs. 12.18 lakhs were reserved for the tribal groups development with a target of construction of three Ashram schools, one students hostel with food allowance for 140 students, scholarship and stipend for 90 students and providing clothes to 300 students. In the same period, targets were fixed for establishing one training and production centre, distribution of agricultural implements to 120 agriculturist families, starting two Scheduled Tribe Co-operative Societies, financial assistance for 120 families for construction of houses, construction of eight wells, formation of 15 miles long roads and providing legal assistance to 75 families. It was also intended to establish women welfare centre at an expenditure of Rs. 40,000. For welfare of the Scheduled Castes it was intended to spend Rs. 4.20 lakhs for programmes like construction of schedule caste boys' hostel and girls hostel, scholarship to 500 primary and high school students, distribution of text books and slates for 1,500 primary school students, one boarding home, scholarship for one student studying abroad and one research student in the state, financial assistance for agriculture for 50 families, establishment of a tailoring centre, and stipend for students, financial assistance for 39 families for poultry farming, carts and bullocks for 58 families, cows and buffaloes for 25 persons, providing land for agriculture for 9 families, purchasing six sites in 30 residential extensions and such other programmes for providing facilities. For the welfare of backward classes it was intended to spend Rs. 49,000, by providing hostel fees for 160 students, scholarship for 140 primary and high-school students, etc.

It was aimed to spend Rs. 2.16 lakhs for Social Welfare during this Plan by establishing a Remand Home for delinquents etc. For labour welfare, establishment of labour welfare centre by spending Rs. 18,000, strengthening the employment exchange, providing handicraft training

facilities with an expenditure of Rs. 4.60 lakhs were all aimed at. It was also intended to develop a regulated market committee by spending Rs. 54,000, and a cattle market by spending Rs. 30,000 during this Plan period.

The allocations for State-level plans included Rs. 20.66 lakhs for continuing the major and medium irrigation projects of the district, Rs. 100 lakhs for the Harangi project, Rs. 61 lakhs for Kambadakada project. As regards Plan allocation for power Rs. 15.50 lakhs had been allocated for the district with targets of drawing of electrical grid of 117 km, electrification of 12 villages etc. As regards development of roads, it was intended to convert the Kushalnagar-Sampaje-Mangalore road into National Highway during this Plan period. The length of this road in the district is about 36 miles.

Fourth Plan

Agricultural production, irrigation facilities, power generation, utilisation of manpower in full, investing capital in industries, social service etc were given priority in the Fourth Plan. The progress achieved by Kodagu at the commencement of this Plan is noted below, along with its rank in the State among the districts as noted in brackets. As per the village accounts of 1969-70 percentage of net sown area to total area 28.5(17), the percentage of the irrigated lands belonging to 1,000 persons to the net-sown area belonging to 1,000 persons as in 1969-70, 6.9(15), the percentage of students out of total population in 1970-71, (1-5th standard) 11(5), percentage of educated in 1971, 44.4 (1), percentage of men among educated 50.3(4) percentage of women among educated 37.8 (1) length of good roads in 1970-71 100 km 26.6(6), population with facilities of hospitals, in 1970, 1,25, 641(19), population benefited by every commercial or Co-operative banks in 1972, 6,179(1).

The *per capita* income of this district was Rs. 1,218 in 1970-71, and Rs. 1,394 in 1974-75. The percentage of net irrigated area to net sown area was 12.8. Area with high-yield was 3,400 ha fertiliser used was 4,000 tonnes; cotton production was 710 bales; sugar cane production was 0.09 lakh tonnes; oil seeds production was 0.007 lakh tonnes; and food grain production was 0.87 lakh tonnes. Number of villages electrified was, 129; electrification of pumpsets were 858. There were 205 small scale industries, 69 reorganised cooperative units, 16 hospitals, 23 primary health centres, 54 dispensaries, 32 family planning centres, and 32 veterinary hospitals functioning in the district.

Fifth Plan

The implementation of the Fifth Plan commenced in 1978 and covered up to 1983. With the motive of eradicating poverty and to achieve self-sufficiency. When compared to other districts at the commencement of this Plan Kodagu was a developed district in all fields in 1976-77. It was treated as having highly progressed district in transport and communication and banking sectors which are responsible for economic growth. All the three taluks of the district were not only included under the Western Ghats Development Programme but also came under the priority area. The Western Ghats Development Programme Board started to function from 1976 and has given priority for agriculture, animal husbandry, irrigation, horticulture, forest, small scale industries and tourism development in these taluks.

The status of Kodagu district had at the commencement of the fifth plan under various sectors is depicted here: Percentage of irrigated area to net sown area 13.7, area under high yield crops 18,200 ha, fertiliser used 7,900 tonnes, agricultural production 1.15 lakh tonnes (1977-78); small scale industries 287, medium and major industry 1; electrified villages 112 (35.5%) pumpsets energised 1,100; length of road per 100 sq km 59 km long; post offices 6; hospitals 26; primary schools 369; high-schools 50; colleges 6, hospitals 26; primary health centres 3; public health units 17; number of beds in hospitals 1,295; family welfare centres 5; veterinary hospitals 32 (1977-78); number of co-operative societies before Reorganisation of States 173; co-operative societies started after Reorganisation of States 69; short-term loan distributed Rs. 301.82 lakhs, medium term loans Rs. 31.32 lakhs, long-term loans Rs. 28.98 lakhs, branches of commercial banks 66, amount lent by commercial banks Rs.1,659 lakhs, beneficiaries of differential interest scheme 2,238 and the amount of loan they procured Rs. 10.73 lakhs.

Sixth Plan

The progress achieved at the end of Fifth Plan and at the commencement of the Sixth Plan under various sectors were as follows: Production of food grains 1.06 lakh tonnes, percentage of irrigated area in the net sown area 3.4, area of lands sown with high-yielding crops in the net sown area 25,400 ha (17.3 %), fertilisers used 14,700 tonnes (about 100 kg per ha), large and medium scale industries 1, small scale industries 896, employees in these industries 21,000 (1.7%), no of electrified villages 259 (90%), pumpsets energised 1,600, length of road in every 100 sq km 65 km, post offices 206, villages having postal facilities 190, primary schools 404, high schools 68, colleges 8, hospitals 26, Primary Health Centres 6, public health units 19, number of beds in hospitals 1,305, family welfare centres 6, veterinary hospitals 35, average number of cattle treated in each veterinary hospital 6,600, short-term loan lent by Co-operative Societies Rs. 55.94 lakhs, long-term loans Rs. 1.13 crores, number of branches of commercial banks 99, number of persons served by each branch 5,000, amount lent by commercial banks Rs. 4,189 lakhs, amount of priority loan Rs. 3,177 lakhs, loan under differential rate of interest scheme was Rs. 92 lakhs.

Table No. 35

The progress index and Rank of district from 1960-61 to 1985-86

Year	Progress Index	Rank
1960-61	124.15	6
1970-71	107.79	7
1974-75	108.63	7
1976-77	103.44	8
1985-86	94.73	10

Source: Annual Plan 1987-88]

PROGRESS ACHIEVED FROM 1983 TO 1989

The details of progress achieved in Kodagu district under various sectors from 1983 upto 1989 is briefly furnished here. The Agriculture Department has assisted in district achieving progress in production of food grains by supplying and distributing seeds of high-yielding varieties of paddy, ragi etc to the farmers every year, and also by giving guidelines to farmers about taking care of the seeds, usage of pesticides, fertilizers etc. High-yielding variety of paddy was grown in about 3,000 ha, and high-yielding variety of ragi in 3230 ha. Under Tribal Sub-Plan Rs. 36,85,192 was distributed to 5,554 beneficiaries of Scheduled Tribes to purchase oxen for tilling, agricultural items and implements, pesticides, modern farm training etc. Under the Special Component Plan Rs.10, 53, 228 were distributed to 1,399 beneficiary farmers belonging to schedule Tribes for agricultural implements and other necessities. Rs. 27,630 was spent for training tobacco cultivators, nursery plots and field demonstration. Under the Western Ghats Development Programme the amount spent for supplying seeds for green manure, agricultural implements, sulphur, plant protection implements etc. exceeded a lakh of rupees. Adequate efforts were made to develop irrigation of Harangi project which was coming under Command Area Development Authority Programme. Farm kits were supplied to small and marginal farmers freely at a cost of Rs. 1,63,815. Seeds bags were freely distributed to 3,117 farmers at a cost of Rs. 1,44,870 and under famine relief programme, 2,878 bags were distributed at a cost of Rs. 3,48,000.

Extensive programmes were drawn in Somvarpet & Virajpet taluks for development of sericulture which is one of the commercial crops in the district. Sericulture has been introduced in recent years in Madikeri taluk. Between 1984-85 and 1988-89 more than Rs. 15 lakhs were spent under various schemes and assistance provided to 1,048 beneficiaries for developing sericulture. In 12 selected Girijan colonies of Somvarpet and Virajpet Taluks, technical assistance pertaining to sericulture, financial assistance, free seeds, silk worm rearing equipments etc. were supplied besides providing higher technical training in sericulture to selected youth farmers and also stipend to these trainees during the period of training. fifty percent subsidy was given for construction of silk worm rearing houses, for purchasing moutage (*chandrike*) pesticides, nylon curtains, yarn reeling implements etc. the Sericulture Department has extend financial assistance and cash incentives.

For preservation of soil fertility 13,500 ha area under the command of Kyathehole project in Somvarpet taluk was identified and Agriculture, Forest and Horticulture Departments implemented development programmes. The Agriculture Department created 95 farm ponds, the Forest Department raised 3 lakhs nursery plants and the Horticulture Department raised fruit trees and grafted hybrid plants. The Forest Department has spent Rs. 18.137 lakhs for development of tree gardens in 160 ha and 200 erosion preventive barriers. The Horticulture Department raised small gardens in 18 ha and orchards in 54.43 ha, Rs. 2.15 lakhs were spent on school gardens, and 300 contour bunds were formed for preservation of soil fertility.

Under minor irrigation 23 works were taken up in 1984-85 and Rs. 4.64 lakhs were spent, eight works were completed. In 1985-86 fortyfive works were taken up and of 9 works were completed at an expenditure of Rs. 11.82 lakhs. In 1986, thirty two works were executed at a cost of Rs. 15.02 lakhs. By end of Jan. 1987 seven works were completed at an estimated cost of Rs.

4.24 lakhs. Under Ganga Kalyana Scheme Rs. 4.22 lakhs were spent separately and 9 works were completed.

Under the Western Ghats Development Programme the Department of Animal Husbandry has spent Rs. 8, 16, 981 between 1983-84 and 1988-89. Cross breeds cattle were developed through artificial insemination Centre of Somvarpet taluk under CADA programme at a cost of Rs. 0.30 lakhs. Under the Special Component Plan Rs. 6.752 lakhs for cattle development unit, Rs. 5.60 lakhs for pig units, Rs. 0.29 lakhs for goats units have been spent. Under the Girijan plan Rs. 14.56 lakhs for cattle unit, Rs. 1.31 lakhs for buffalo unit, Rs.0.56 lakhs for goat unit have been spent; 15,428 mixed breed calves were born during this period. The Department of Animal Husbandry has taken up several schemes like strengthening the pig breeding unit at Kudige, feed development and financial assistance to rearing calves and providing modern facilities to veterinary hospitals.

The Department of Fisheries has achieved progress though organising training in fisheries in the district, providing fishing implements, financial assistance etc. As a result 30 Scheduled Caste and 16 Schedule Tribe persons have been able to adopt fisheries as their profession. Rs. 1.40 lakhs have been distributed to 14 persons at Rs. 10,000 per head, as assistance to fish culture. Under the 30 percent financial assistance programme fishermen have been encouraged by granting bank loans to them. The Mahishir Fish Development Centre which is being taken up under the Western Ghats Development Programme is significant achievement of the Fisheries Department. The Department has earned Rs. 1.75, 664 by rearing 13, 69, 019, fishlings in various parts of the district.

With the intention of encouraging garden crops 2,99,347 cardamum seedlings have been raised at a cost Rs. 2,98,023 and distributed among beneficiaries between 1982-83 and 1987-88 and cardamum cultivation has been developed in additional 214 acres. For development of black pepper which is important among the spices, 2,06,803 pepper seedlings have been raised at a cost of Rs. 1,05,537 and the same have been distributed to beneficiaries and the pepper cultivation has been extended to additional 219 acres. For development of coconut, 1,15,357 coconuts were planted and seedlings raised at a cost of Rs. 4,56,095 and they have been distributed. For development of vegetables 2,537 small gardens have been created at a cost of Rs. 13,845 and farmers have been encouraged. For development of intensive cultivation of bananas and orange, distribution of seedlings and creation of demonstration plots have been taken up every year; pesticides are being distributed at 50 percent subsidised prices for protecting garden crops. Rs. 36,118 have been spent on the Rajaseat Garden of Madikeri in 1983-84 and it has been developed into an attractive garden.

Under the Integrated Rural Development Plan 14,608 beneficiaries have gained between 1983 to 1985 and Rs. 173.937 lakhs have been spent for this purpose. Under the Antyodaya scheme 2,615 beneficiaries have been extended help at a cost of Rs. 29.372 lakhs. Under the 'One hundred Wells Programme' 938 wells have been dug at an expenditure of Rs. 24.997 lakhs. Under the self-employment scheme training and implements have been provided to 593 persons at a cost of Rs. 5.077 lakhs. Under Negilu Bhagya Scheme 45 persons have been provided facilities at a cost of Rs. 0.511 lakhs, Rs. 2 lakhs have been spent for rehabilitation of 52 persons. Under the Western Ghats Development programme, Rs. 219.942 lakhs have been allocated and spent for various

development programmes. By spending Rs. 59,60 lakhs 952 gohar gas units and 4064 ASTRA ovens costing Rs. 16,460 have been provided with a view to provide fuel facilities and loans and financial assistance in Rural areas. Under the National Employment Scheme 15,404 mandays were generated at an expenditure of Rs. 343.500 lakhs and employment assurance has been extended with generation of 7,160 lakh mandyas at an expenditure of Rs. 128.300 lakhs.

The number of industrial units which were registered between 1983 and 1989 was 627. The investment of capital in these units amounts to Rs. 2.40 crores. They have provided employment to 2,863 persons. Assistance has been provided under the self-employment scheme by providing capital to the tune of Rs. 2.62 crores to 991 persons, financial assistance and loan of Rs. 28,14,850 to 153 persons, and Rs. 5.16 lakhs as seed fund loans to 51 persons. Rs. 4.45 lakhs has been provided as assistance for development of 5 industrial units. Regarding Apiculture, 630 persons have been trained and Rs. 12.50 lakhs financial assistance has been extended to them for cultivating this profession. Besides loans have been extended under the Special Component Plan to an extent of Rs. 25.58 lakhs to 347 persons and Rs. 56.67 lakhs loan facility has been extended to 1,379 persons under Girijan Plan. For encouraging handicrafts 761 persons among the rural artisans have been identified and Rs. 13.45 lakhs have been lent to them to adhere to their professions. Industrial implements have been given free of cost to 670 persons belonging to backward class, Rs. 22.39 lakhs have been spent and assistance rendered to 1,695 persons under the integrated Rural Development Programme and I.S.B. scheme. Under the TRYSEM (Training in Self-employment to Rural Youth) 538 persons have been trained in various professions; 18 Industrial Estates in Madikeri and 8 in Kushalnagar have been established for industrial development; 250 acres have been reserved for formation of industrial area and so far it has been developed in 30 acres.

The Integrated Tribal Development Scheme the Department has implemented the district's comprehensive tribal development plan through various departments. Rs. 70.19 lakhs has been released to various development departments in 1987-88 for this plan. Of this Rs. 17.08 lakhs are from Central Government. The total outlay in this year was Rs. 68.48 lakhs.

For checking population explosion 25,066 persons were subjected to family planning operations in the district between 1983 to 1989. Under the mother and children welfare scheme 69,126 D.P.T. 2,27,159 polio, 62,789 T.T. and 69,284 B.C.G. Vaccine and injections have been given. Iron rich food has been supplied to 88,620 pregnant women and 82,881 children. Vitamin A enriched food has been distributed to 2,08,176 persons. For curing blindness, 1,002 persons were subjected to 'eye scale' operation. D.D.T. spraying was undertaken for prevention of malaria.

The Women and Children Welfare Department has disbursed a sum of Rs.10,000 and Rs. 16,550 which it received from the Central and State Governments respectively as scholarship to students between 1986 and 1989. Rs. 5,476 has been paid as stipend to 29 women who had vocational training. Among the women workers in farmers 7,803 women got Rs. 23.41 lakhs as maternity allowance. The department has granted Rs. 50,000 to the Cauvery District Children's Home for taking care of destitute children, and it sanctioned Rs. 32,146 in the year 1987-88 for 25 beneficiaries. The department released Rs. 8,090 to the working women's children care centre. Rs. 1.35 lakhs have been spent to special nutritious food centres in the district for benefiting 1,629

persons during the last three years. Under the Home Welfare Scheme Rs. 39,000 were lent to nine women beneficiaries and released Rs. 3000 as subsidy. Under the Thalibhagya Scheme Rs. 60,520 has been released as financial assistance to marrying people. There are 348 Anganawadi centres in the district for children welfare, and for distribution of rich food to pregnant women and mothers in the post-natal period Rs. 50.42 lakhs has been spent during the last three years. Rs. 1.08 lakhs were spent for maintenance of 40 Anganawadi centres. For the development of child welfare Rs. 4.19 lakhs were spent for distribution of rich food under Tribal Plan and Rs. 4.40 lakhs were spent under Special Component Plan for Scheduled Caste in the district.

By end of November 1988 there were 957 old persons getting old age pension in Madikeri Taluk, of them 89 persons belonged to Scheduled Castes and 16 to Schedule Tribes; 2,061 widows were getting a widow pensions, and of them 148 belonged to Schedule Castes and 36 belonged to Scheduled Tribes. A total of 546 handicapped person were getting monthly pension and of them 21 belonged to Scheduled Castes and 3 belonged to Scheduled Tribes. During the last six years house sites were allotted to 3,428 and of these 644 belonged to Scheduled Caste and Scheduled Tribes. In Madikeri taluk alone 412 acres land has been sanctioned and ownership cards were distributed to 168 persons belonging to Scheduled Castes, 281 acres to 87 persons belonging to Scheduled Tribes and 1,050 acres to others. In the last six years 6,992 were drawing widow pension, and 2,696 handicapped persons were getting monthly allowances in Somvarpet and Virajpet taluks. In Virajpet taluk 115 acres to 205 Scheduled Caste persons, 234.35 acres to 136 Scheduled Tribe persons and 995.78 acres to 406 others were sanctioned and cultivation permission has been given. 239 acres of land which were encroached by 436 persons were regularised and house sites were allotted to 2,075 persons. In Somvarpet taluk house sites have been allotted to 1,090 persons belonging to the Scheduled Castes, 399 persons of the Scheduled Tribes and 4,415 others and 22 acres of land which was encroached by 2,789 persons has been regularised. A total of 1,526 acres of land has been distributed to 1,248 persons inclusive of Scheduled Castes and Scheduled Tribes in the taluk as per land grant rules.

During the last six years the Public Instruction Department in Kodagu district has spent Rs. 2,44,250 as grants to private high schools, Rs. 4, 23,300 for distribution of free text books and uniform to school children, Rs. 2,48,350 for benches and furniture to primary schools, Rs. 52,000 for sports items of high schools, Rs. 6,02,000 for construction of class rooms, Rs. 52,300 for libraries for purchasing books, Rs. 3,34,340 for running high schools, Rs.87,742 on students of informed education centres, and Rs.1,75,000 for getting the class rooms repaired.

The Social Welfare Department has incurred expenditure of Rs. 70.45 lakhs on education of 18,740 boys and girls belonging to Schedule Castes in Kodagu district. According to informed sources, Rs. 25.26 lakhs has been spent to facilitate 2,300 persons to improve their financial condition. At the same time 83 hostels have been opened at an expenditure of Rs. 1.77 lakhs, Rs. 3.93 lakhs have been spent on education of 3,502 S.T. students. Rs.242.81 lakhs have been spent on 20,268 persons on their economic improvement. There are 6 pre-metric hostels for Schedule Castes and 6 for Schedule Tribes in the district. For the children of Schedule Castes and Scheduled Tribes 12 Ashrama schools are being conducted. There is a tailoring training centre for Schedule Castes ladies in Madikeri which trained 120 women at 20 per year and it has also given free

sewing machines to them. Rs. 242.81 lakhs have been spent in six years on their economic development programmes.

The Department of backward classes and minorities has spent Rs. 36,22,546 on 2,830 students of the pre-metric hostels, and Rs. 8.62 lakhs on 520 students of post-metric hostels in the district. Rs. 32.26 lakhs have been disbursed as scholarship to 21,598 pre and post-metric students belonging to backward classes. Rs. 1.13 lakhs were disbursed as scholarship to 913 students belonging to Scheduled Castes, Rs. 41,343 is given as stipend to 93 students who were trained in typing and shorthand. Incentive prizes amounting to Rs. 4,225 have been distributed to 30 backward classes students for passing in first class. Book banks have been opened at a cost of Rs.40,000, sports implements have been supplied at a cost of Rs. 15,000 and in addition Rs. 17,500 have been spent on providing beds, rugs etc in hostels, and 116 persons have been trained by spending Rs. 1,32,496 on tailoring at the training centre. Rs. 8,61,480 have been spent an exemption of fees for backward class students. A building was purchased at Kodlipet at a cost of Rs.1.10 lakhs to run a pre-metric hostel and in addition a hostel building has been constructed under N.R.E.P. Driving training has been imparted to 68 unemployed educated youth at a cost of Rs. 48,070. Rs. 8.12 lakhs has been disbursed to 389 economically backward persons as rejuvenation loan. Rs. 27,895 have been disbursed as scholarship to Schedule Tribes, students' self-training centres have been opened by spending Rs. 10,000 and Rs. 24,000 have been spent in reforming seven student hostels.

The Department of Co-operation has spent Rs. 2.77 lakhs during the last six years for enrolling the Schedule Tribe persons as members of co-operative societies. Financial assistance rendered to women's Co-operative Societies for their employees was Rs. 1.05 lakhs and Rs. 1.26 lakhs were given as share capital. Under the revised Central plan, Rs. 1.52 lakhs were provided to Co-operative Societies for opening retail shops in large scale and for opening shops under the Special component plan. A margin fund of Rs. 3.25 lakhs have been granted as working capital to Schedule Caste Co-operative societies. Rs.22.23 lakhs financial assistance has been rendered to Rural Co-operative Societies for construction of godowns. Rs. 3.94 lakhs have been extended as interest free loan to cover the additional share amount payable by the Schedule Castes to the Co-operative Societies. Rs. 3.88 lakhs have been provided as share capital to Marketing Co-operative Societies, Rs. 1.00 lakh as share capital to Schedule Castes, Co-operative Societies and Rs. 4,000 financial assistance has been rendered to a dress stitching Co-operative Society, Rs. 3.26 lakhs have been provided to Schedule Caste & Schedule Tribe Co-operative Societies for starting fuel depots. Rs. 1.78 lakhs as financial assistance has been rendered for enrolling Schedule Tribe people as members of Co-operatives. Rs. 30,000 have been provided as interest assistance for medium-term loan under Integrated Rural Development Programme and Rs. 12,000 interest-fee loan has been extended to a weakened consumers co-operative society. Under the scheme for strengthening the share capital of marketing co-operative societies Rs. 3.62 lakhs have been provided. Rs. 1.44 lakhs have been provided as financial assistance towards the loan borrowed by Schedule Caste persons for developing their properties, Rs. 40,000 has also been provided as working capital to two Weavers Co-operative Societies.

Under the Rural Electrification programme the Karnataka Electricity Board has supplied power to 292 villages during the last six years, 78 of these villages which got the facility are in

Madikeri taluk, 98 are in Virajpet taluk and 121 are in Somvarpet taluk. Under the scheme for electrification of hamlets, 6 in Madikeri taluk, 20 in Somvarpet taluk and 18 hamlets in Virajpet taluk obtained the facility of electrification. 52 Scheduled Tribe Colonies, of them 4 in Madikeri Taluk, 27 in Somvarpet taluk and 21 in Virajpet taluk, obtained the benefit of power supply. Similarly 23 Schedule Caste Colonies in Madikeri Taluk, 43 in Somvarpet taluk and 19 in Virajpet taluk also had the benefit of power supply. 2,768 houses were benefited under Bhagyajyothi scheme, of them 506 are in Madikeri taluk, 1,624 are in Somvarpet taluk and 639 are in Virajpet taluk. A total of 2,204 pumpsets have been energised on priority to facilitate irrigation.

A total of 74,409 illiterate persons were registered and 51,492 were made literate under the Adult Education Programme which started in 1980-81 up to 1987-88.

Spices Board has extended financial assistance during the last six years to the growers of the commercial crops like cardamom, blackpepper etc. Assistance has been extended to 106 cardamom growers for purchasing sprinkler irrigation sets, and to 106 persons for establishing processing units. Under the certified seed production scheme 28 lakh cardamum seedlings have been supplied to 372 persons, 207 persons have been rendered financial assistance for purchasing 225 plant protection implements and 48,834 kg of copper sulphate has been supplied to 1,567 persons at 50 percent concession rates. Under the Garden Modernisation Scheme 1931 persons have been rendered assistance for modernising in 24,141.17 ha area. Financial assistance has been rendered to 16 persons for soil conservation and to 111 persons for construction of water sources like wells, ponds etc.

PROGRESS AFTER 1989

In 1990-91, the Agriculture Department has spent Rs. 2.30 lakhs for distributing weed killers and pesticides at 50 percent subsidised rates to 1,900 beneficiaries in the district. Under the revised Central Plan sanction has been accorded as follows: Rs. 10,000 for development of pulses, Rs. 3.12 lakhs for distribution of seeds at subsidised rates, Rs. 45,000 for disbursing incentives to seedling plots, Rs. 15,000 for providing zink sulphates, Rs., 75,000 for purchasing spraying machines, Rs. 1.50 lakhs for weed killers and pesticides. Sanction has also been accorded for a sum of Rs. 2.25 lakhs for purchase of agricultural implements, Rs. 90,000 as financial assistance to small farmers for purchasing power tillers, Rs. 1.50 lakhs for purchase of pumpsets, Rs. 36,000 for field demonstration, Rs. 30,000 for education tours for farmers, Rs. 15,000 for training and publicity. In the same period the Horticulture Department identified 52 beneficiaries and reserved Rs. 52,000 for installing pumpsets to coconut gardens. Also Rs. 50,000 for horticultural field conservation, Rs. 87,000 for plant protection inclusive of Rs. 2.00 lakhs for Tribal Sub-Plan Rs. 3.89 lakhs in all were reserved and a major portion has been distributed. The Animal Husbandry Department has planned for granting Rs. 2.50 lakhs for a mobile veterinary dispensary, Rs. 3 lakhs have been sanctioned for special breed of cattle and Rs. 6 lakhs have been granted for opening six veterinary hospitals. For upgrading Rural Veterinary dispensaries Rs. 2.70 lakhs and for hospitals and dispensaries Rs. 2 lakhs have been allocated. Under the special breeding of live stock scheme for rearing of pigs 25 percent financial assistance to small farmers and 33 percent financial assistance for marginal farmers is being extended. For mixed breed calves rearing, 50 percent financial

assistance to small and marginal farmers, 66 percent to agricultural labourers and 85 percent financial assistance to Schedule Tribes persons are being rendered.

In 1989-90 mulberry was raised in 1200 acres in the district and 50 tonnes of cocoons have been produced. In 1990-91 Rs. 2.00 lakhs were granted under the Special Component Plan and a progress of 95 percent has been achieved. Under the Tribal Sub-plan the grant allotted is Rs. 3.50 lakhs and cent percent progress has been achieved. Rs. 2.00 lakhs has been granted for rearing and distribution of fishlings and Rs. 20,000 for publicising about scientific fishery has been granted.

Under the World Bank aided Social Forestry Scheme Rs. 4.37 lakhs have been spent for development of social forest in 1990-91. During this period tree garden was undertaken in 66 ha and 5.82 lakh plants have been nursed; 200 bamboo nursery plots have been created and bamboo has been raised in 15 ha. Rs. 50,000 has been spent on school gardens, Rs. 4.80 lakhs have been allocated from the National Wasteland Development Board for decentralised horticulture gardens. Under the National Wasteland Development Board social secure woods are being developed at an expenditure of Rs. 60,000. Rs. 2.25 lakhs have been sanctioned under the Tribal Sub-Plan 75 persons for construction and repair of their houses.

A grant of Rs. 60.33 lakhs has been released for increasing the irrigation facilities for seven minor irrigation schemes during the current year. Of this Rs. 58.78 lakhs have been spent for the new and on going schemes. Out of the Rs. 4.00 lakhs which were allotted under the Tribal Sub-Plan for designated works Rs. 2.06 lakhs have been spent and 42 ha have been brought under irrigation thus raising the total irrigated area to 460 ha.

For Self-employment and Training Rs. 2.00 lakhs have been spent during 1990-91. Rs. 3.00 lakhs have been reserved for providing seed fund to small and tiny industries and Rs. 2.52 lakhs of this grant has been spent for imparting bee-keeping training to 40 persons and for distributing 400 beehive boxes and 30 honey machines. Karnataka State Finance Corporation has been encouraging industries in the district by way of lending Rs. 127.55 lakhs to 86 units as loan. Of the sanctioned grant of Rs. 7,96,035 and financial assistance of Rs. 24,345 by the Khadi and Village Industries Board during this year, Rs. 5,96,035 grants and Rs. 18,755 financial assistance had been distributed to various units.

With a view of increasing medical facilities in the district, during 1990-91 Rs. 5,000 to Rs. 20,000 have been provided for construction of buildings of 33 Primary Health Centres according to their individual need. For the same number of quarters grant of Rs. 5.00 lakhs has been provided and Rs. 2.20 lakhs has been released. Rs. 2.00 lakhs for repairs of equipments, Rs. 2.60 lakhs for dispensaries, and Rs. 3.00 lakhs for new equipments has been reserved. For establishing new primary health units at Shirangala and Kanur with six beds each a grant of Rs. one lakh has been allocated. Rs. 6.000 lakhs as first installment for upgrading five primary health centres, Rs. 6.00 lakhs for the on- going works and Rs. 2.50 lakhs for advanced works have been released.

The Social Welfare Department has reserved Rs. 80,000 for maintaining the pre-metric hostels for the Schedule Castes during 1990-91 and a progress of 53 percent has been achieved, while releasing grants for scholarships it has achieved cent percent progress. An amount of Rs. 2.00 lakhs for post-metric students belonging to Schedule Caste have been spent and for residential schools

Rs. 1.00 lakhs have been spent. The grant of Rs. 5.67 lakhs has been sanctioned for running nurseries and women welfare centres. Women and Children Welfare Department has sanctioned grants of Rs. 60,000 for a home for destitute children, a grant of Rs. 1.00 lakh each for one home at Madikeri and Virajpet for destitute children, Rs. 11,426 for running play homes for children of working women, Rs. 15,000 as grant for taluk-level women's organisations. The department has spent Rs. 75,000 on 21 Anganawadis. A grant of Rs. 33 lakhs has been allocated for the benefit of 29,109 beneficiaries in 559 Anganawadis. Under non-plan schemes Rs. 6,20,400 have been spent of as maternity allowance to 2,068 female agricultural labourers, and Rs. 30,52,335 on widow pension. Rs. 14,28,212 on old age pension, and Rs. 2,45,811 have been spent for payment of monthly allowance to handicapped persons. Rs. 11,80,325 has been spent for giving scholarship to 8,800 pre-metric and post-metric students belonging to backward classes and minorities. Rs. 14,76,333 have been spent for running student hostels.

A total of 168 works pertaining to construction of roads and bridges were underway during 1990-91 and a grant of Rs. 164.18 lakhs has been allotted for these works. The scheme called Dwarka is meant for production of household articles in rural areas and marketing them. Under this scheme funds have been released for 99 groups during the current year and these funds have been distributed to 78 groups which are actively functioning. Of them 7 groups are engaged in cane work, 14 in incense sticks, 8 in mat weaving, 5 in manufacture of brooms, 2 in production of pots, 2 in production of leaves for eating, 5 in preparation of dresses, 1 in production of cane chairs, 1 in production of phenol, 4 in manufacture of stone jelly, 3 in preparation of envelopes, 2 in raising mushrooms, 4 in knitting, 12 in preparation of spices powders, 2 in production of bee honey and other items and one in raising coffee nursery.

Regarding rural electrification, in 1990-91 270 pumpsets were energised benefiting 2,826 farmers. Under Bhagyajyothi, 63 families have been targeted benefiting 3,153 persons, 289 villages and 150 hamlets have been provided with power supply under rural electrification programme. Power supply has also been extended to 85 Schedule Caste colonies and 77 Schedule Tribes colonies during the current year.

During 1990-91 in the district a total of 14,120 aged persons, 7,976 widows and 3,897 handicapped persons were getting monthly pension from the government. The taluk-wise break-up is as follows: Madikeri taluk, aged persons 1,982, widows 2,199 and the handicapped 1,716; Virajpet taluk, aged persons 7,706, widows 2,400 and the handicapped 1,069; Somvarpet taluk, aged persons 4,432 widows 3,377 and the handicapped 1,112.

Town Planning

On reviewing the geographical, social and economical conditions of the district and taking into consideration the need of the future and planned development, the Town Planning Department has prepared the plans for developments of town and villages as noted below. These plans are helpful in understanding the trends of growth of this residential areas. As per the list of towns prepared for Kodagu district, Somvarpet, Virajpet, Gonikoppal, Ponnampet, Kodlipet, Shanivarasanthe, Kushalnagar and Suntikoppa have been included, and in the list of villages Hosakeri, Handikeri, Karadigodu, Kudige, Kudumangalore, Nokya, Balele, Andagove, Peraje, Bilugunda, Kolakeri,

Bhagamandala, Kutta, Cherala, Srimangala, Karike, Chowdlu, Madapura, Murnadunadu and Pollybetta have been included. Madikeri Town Development Authority was established in 1987 in accordance with Karnataka Town Development Act. The comprehensive development programme prepared by this authority is in accordance with the Karnataka Town and Village Development Rules 1961; and has been approved by the government, Madikeri is being developed by implementing the plan approved by the government.

Progress Centres

As Kodagu district comes under the perview of the Western Ghats Development programme it is included in the regional development plan prepared by the Director, Town Planning, Shimoga. The main intention of this plan is to utilise the available facilities to the maximum extent and to make use of the basic service facilities from the nearest progress centres.

Types of Progress Centres

1) Sub-regional Centre: Madikeri, 2) Market and Service Centres: a) Somvarpet and b) Virajpet. 3) Marketing Centres: Bhagamandala, Kushalnagar, Kodlipet, Suntikoppa and Gonikoppal; 4) Service Centres: Karike, Bethu, Sampaje, Kanthur, Kunjila, Shanivarasanthe, Gonimarur, Shanthalli, Garwale, Valnur, Thyagathur, Kudige, Igoor, Gowdalli, Nidtha and Honnekodi in Mercara taluk; Ponnampet, Nokya, Balele, Siddapura, Handikeri, Parakatageri, Kumatur, Nittur, Kedamullur, Kadanga, Maroor, Halagunda, Kutta and Maldare of Virajpet taluk.

Public Works

Schools and public utility buildings, house building works, irrigation works, (minor, medium and major) belong to the public works department and construction of roads and buildings also come under the jurisdiction of the Public Works Department. In the list of buildings roads and bridges proposed to be included in the budget of 1990-91 are as follows: First floor of the Combined Magistrates Court in Virajpet, offices of the Deputy Superintendent of Police (Kushalnagar), office of the Circle Inspector (Somvarpet), Kodagu Division Public Works Department (Madikeri), Book Depot of Government Press (Madikeri). Offices of the Commercial Tax Officer (Madikeri), Deputy Commissioners Office (Madikeri), office of the Fire Brigade (Kushalnagar), quarters of revenue department officials, quarters for sub-registrar and officials of his office, quarters of the sub-treasury officer (Somvarpet), quarters of the officers for Remand Home and his officials, quarters for transport department officials, quarters of N.C.C. officer (Somvarpet), quarters for lecturers and officials of First Grade College, quarters for doctors and officials of General Hospital (Madikeri), quarters for police sub-inspector and constables (Somvarpet), quarters of Deputy Superintendent of Police (Virajpet and Kushalnagar), construction of General Hospital third stage, construction of Hostel for nurses of P.H.C. (all Madikeri), are the important works. Reconstruction of existing bridges in 98th km 128.8 km and 146th km on Mysore-Bantwal road, reconstruction of the bridge at 36.4 km on Hunsur-Virajpet road, reconstruction of the bridge at 22.8 km and 33km in Madikeri-Bhagamandala road, reconstruction of bridge at 21.8 km on the Bettageri-Nalkunadu road, reconstruction of bridge at 2.2 km on Siddapura-Mysore road, reconstruction of bridge at 4.5 km of Somvarpet-Konanur road,

Reconstruction of bridges at 1.4 km of Kaggodu-Katageri road at 26.6 km of Gonikoppal Wynad road, at 120 km of Periapatna-Hassan State highway at 11th km of the Shanivarasanthe-Banavara Road, at 15.7 km of the Madikeri-Kodlipet road, at 12.05 km of Shetigeri Beeraga road, at 7.6 km and 29 km of Madikeri-Bhagamdandala road, at 125.9 km of Handikeri-Kuttagodiroad, at 51 km of the Madikeri- Kodlipet road, at 8.0 km of the Suntikoppa-Siddapura Road, at 33.4 km of the Siddapura-Mysore Road, at 6.7 km of the Somvarpet- Konanur road, at 20, 60.9 and 30 kms of Madikeri-Kodlipet road at 9.8 km of the Fraserpet-Somvarpet road, at 1.8 km of Fraserpet-Siddapura road, asphaltting from 6.0 km to 9.3 km of the Channaiahnakote-Chennangi Abbur road, from 3.5 km to 6.1 km and 6.45 km to 7.5 km of the Chembe Bellur-Kodangiri road, from 0.0 to 12 km of Bhagamandala-Karike road, from 24 km to 29 km of Madapura-Shanthalli road, from 3.6 km to 5.4 km of Kummehole- Hathur road, from 120 km to 148 km of the Mysore-Bantwal road, from 10km to 40.0 km of the Madikeri-Kodlipet road, and from 25.0 km to 40.0 km of the Madikeri-Makutta road has been proposed to be included in the budget along with asphaltting selected reaches. Improvements to the Bhagamandala-Karike road from 15.0 km to 30.0 km the Madikeri-Mukutta road from 50.0 km to 65.0 km, Madikeri- Kodlipet road from 41.0 km to 60th km, the Kathale Kadu-Maragodu- Kodangiri road from the starting up to 14.8 km the Hunsur-Virajpet- Shirangala road from 5 km to 15 km, Kushalnagar Siddapura road from the commencement up to 18.0 km, the Holenarasipura-Hassan border highway from 93.6 km to 131.2 km, Siddapura-Mysore road from 28.0 km to 45.5 km, Channarayapatna-Shanivarasanthe road from 59.5 km to 63.9 km in selected portions and improvements to the Bhagamandala Thala - Cauvery road from 0 km to 8.0 km, Hanagal - Thalthare-Shettihalli - Thakeri - Gharwale road from 16.2 km to 18.2 km, the Chiranati-Sarakatageri road from 2.0km to 6.0 km, the T.Shettigeri-Beeraga Irapu temple road from 1.2 km to 4.15 km, Somvarpet - Shanthalli - Kundalli road from 15.0 km to 16.3 km have all been proposed to be included in the budget.

DISTRICT DEVELOPMENT PROGRAMMES AND PROGRESS

All the development programmes which were with the District Rural Development Institutions came under the jurisdiction of the Zilla parishad by the end of February 1987. The development works undertaken by Kodagu zilla Parishad in 1988-89 and 1989-90 and their progress are briefly noted below. A target of spending Rs. 73 lakhs in five years on Mahishir Fish Development programme has been fixed, and about Rs. 30.0 lakhs have so far been spent. The milk chilling unit at Ponnampet which was idle for several years has been rejuvenated and it has become functional again. X-ray machines have been installed in hospitals at Shanivarasanthe and Kushalnagar. The pottery centre at Madikebeedu has been rejuvenated. Sanction has been accorded for mini stadium in all three taluk head-quarters of the district and works on them are under progress. Rs. 68.81 lakhs and Rs. 78.85 lakhs were respectively spent during 1988-89 and 1989-90 under the Western Ghats Development Programme and progress has been achieved in respect of Minor irrigation, forest, fisheries, horticulture, sericulture, industries, foot-bridges etc. Under the programme Rs. 2.13 lakhs have been spent on 36 foot-bridges and 8 were completed while 28 others were under various stages of completion. In 1988-89 Rs. 20.98 lakhs were sanctioned for construction of 38 footbridges and Rs.8 lakhs had been spent on 20 of this foot bridges, while 5 were completed, 15 others were under different stages of execution. In 1989-90 sanction was accorded for 11 foot

bridges at an estimated cost of Rs. 11.72 lakhs and works had been started. Construction of hostels for backward classes and minorities at Bhagamandala, Madikeri and Mayamudi village and were completed. Sanction had been obtained for construction of five more hostels in the district.

The expenditure incurred for various development works in the district during 1988-89 and 1989-90 are respectively: Integrated Rural Development Programme Rs. 46.12 lakhs, and Rs. 86.82 lakhs, Western Ghats Development Programme Rs. 20.98 lakhs and Rs. 107.55 lakhs, Antyodaya Programme Rs. 1.297 lakhs and Rs. 2.00 lakhs, Hundred Wells Programme Rs. 6.23 lakhs and Rs. 12.00 lakhs, Gobar gas plants Rs. 6.87 lakhs and Rs. 11 lakhs, National Rural Employment programme Rs. 72.54 lakhs and Rs. 141.17 lakhs.

By the end of 1982, under National Rural Development Programmes Rs. 30,000 were spent and 4,06,465 man days were generated. The names of the National Employment Programme and Rural Employment Guarantee Programme have been now changed into Jawahar Rozgar Programme. Under this programme the number of works fixed for rural people during 1988-89 and 1989-90 were 540 and 1,660 respectively. The number of works completed by the end of March in these years and expenditure incurred were respectively 359 and Rs. 91.81 lakhs and 957 and Rs. 110.10 lakhs. The man days generated during these years were 4,682 lakhs and 5.50 lakhs respectively.

The number of beneficiaries under the integrated Rural Development Programme in 1988-89 and 1989-90 were 3,474 and 3,381 respectively while the progress achieved were 3,122 (89.56 percent) and 3,415 (101 percent) respectively. The financial target fixed during these year were Rs. 24.97 lakhs and Rs. 65.134 lakhs and the progress achieved were Rs. 46.77 lakhs and 64.854 lakhs respectively. All the animals which were purchased under the Integrated Rural Development and Antyodaya Programmes have been insured. Antyodaya programme has been implemented in all the three taluks of the district with the intention of raising the economically backward people above the poverty line and in 1988-89 Rs. 1.297 lakhs were distributed as financial assistance to 79 beneficiaries against target of 106 beneficiaries. and in 1989-90 Rs. 2.25 lakhs have been distributed to 225 against target of 200 beneficiaries.

Under the Hundred Wells Programme 205 wells and Rs. 7.175 lakhs expenditure were targeted while 191 (93.18 percent) wells were completed at an expenditure of Rs. 6.232 lakhs (86.85 percent). In 1989-90 the targets fixed were 240 wells and expenditure of Rs. 12 lakhs while the progress achieved were completion of 194 wells (81 percent) at an expenditure of Rs. 6.778 lakhs (57 percent).

As regards Gobar gas units it was targeted to install 225 Gobar gas units in 1988-89, 124 Gobar gas units were installed by the end of the year with financial assistance of Rs. 6.87 lakhs. The target fixed for 1989-90 was 425 Gobar Gas Plants and by the end of the year 120 Gobar gas units were completed with financial assistance of Rs. 6.37 lakhs.

Regarding construction of Janatha houses for the Schedule Castes and Schedule Tribes expenditure of Rs. 20.65 lakhs and construction of 860 houses were fixed as target and by the end of the year 550 houses (64 percent) were constructed at an expenditure of Rs. 10.93 lakhs. As per

the programme drawn for 1988-89 a total of 1,322 houses comprising of 767 Hudco houses, 157 under the Special Component Plan and 109 under the Tribal Sub-Plan were completed in 1989-90.

For development of education in the district Rs. 42.99 lakhs under Plan schemes and Rs. 676 lakhs under non-Plan schemes were allotted and Rs. 41.21 lakhs under Plan schemes and Rs. 624 lakhs under non-Plan schemes have been spent during 1988-89. In 1989-90 Rs. 43.15 lakhs under Plan schemes and Rs. 719.34 lakhs under non-Plan schemes have been allotted and Rs. 63.16 lakhs under Plan and Rs. 703.88 lakhs under non-Plan schemes have been spent. Government has sanctioned Rs. 3.44 lakhs and Rs. 13 lakhs under the operation Black Board during 1988-89 and 1989-90 respectively for providing additional classrooms equipments and teachers. Rs. 14.131 lakhs have been sanctioned for adult education in 1988-89 and by the end of the year Rs. 13.72 lakhs had been spent while 7,522 adults were benefited through 300 teaching units. In 1989-90 Rs. 20.33 lakhs were sanctioned and by the end of the year Rs. 16.21 lakhs were spent while 11,796 adults were benefited in 500 education centres.

Under ASTRA oven programme, Rs. 0.718 lakhs were spent as against the target of Rs. 1.50 lakhs and 700 ovens were provided as against the target of 2,000 in 1988-89. During 1989-90 Rs. 1.44 lakhs was spent as against the target of Rs. 75,000 and 1,600 ovens were provided as against the target of 2,000. Rs. 5.80 lakhs were spent to complete drought-relief works in 1988-89. In the same period Rs. 4.47 lakhs were spent for restoration of minor irrigation works. Rs. 24.66 lakhs were spent to complete the works of roads and bridges and Rs. 6.25 lakhs on minor irrigation works in the district in 1989-90.

The Government has released Rs. 10.64 crores for the District Plan of 1990-91. Out of this amount Rs. 5.65 crores were the contribution of State Government and Rs. 4.99 crores of Central Government. About 60 percent of the total amount was spent on Tribal Sub-Plan, Rural Development programme, Jawhar Rozgar Yojana and Western Ghats Development programme.

ERADICATION OF POVERTY

Priority has been accorded to Rural Development Programme, Antyodaya Programme, 100 wells programme, TRYSEM Programme, Ganga Kalyana Programme, and Jawahar Rozgar Yojana, for improving the lot of Schedule Castes, Schedule Tribes, backward classes and the poor in the district and in the current year 2,576 persons under Integrated Rural Development Programme, 164 persons under Antyodaya, 151 persons under 100 wells programme, 240 persons under TRYSEM, were benefited. Under the Jawahar Rozgar programme 341.4 tonnes of foodgrains were utilised and 6.4 lakh man days were generated. In the same year 59 drinking water wells have been dug. 4,151 house sites have been distributed till now and 63 houses have been constructed under Indira Awas Programme. 59 Gobar Gas plants have been installed, 155 small industrial units have been established, and 9 fair price shops have been opened.

Under the special Component programme nine borewells, one mini water supply scheme have been provided by the Public Health Engineering Department; facilities have been provided to 44 persons under Rural Housing, 174 persons by Agriculture Department, 16 persons by Animal

Husbandry Department, five persons by the Co-operation Department, 30 persons by the Industries and Commerce Department and 144 persons by Sericulture Department; in addition two divisions have been formed under Minor Irrigation. Social Welfare Department has procured oxen to 42 persons, 82 km long road has been formed by Zilla Parishad Engineering Division, 14.80 ha have been developed by Forest Department and 135 ha by Horticulture Department, Rs. 30.23 lakhs have been spent under the Special Component Plan.

Under the Social Welfare Programmes Rs. 15.21 lakhs have been spent in all for providing sewing machines, scholarships to students, and certificates of merit, hostels, self-employment training centres, providing equipments for engineering students belonging to Schedule Castes, pre-metric students scholarships, eradication of untouchability, Ashram schools and hostels for girls belonging to Schedule Castes and several programmes have been drawn for development of backward classes. Rs. 52 lakhs have been spent during the current year for Scholarships to pre-metric and post-metric students, maintenance of hostels and improvements, maintenance of self-education centres, supply of sports materials, establishments of book bank, construction of hostels etc and 2,943 students have benefited under these programmes.

Several programmes have been drawn regarding women and children welfare. Extending financial assistance to 12 women for getting vocational training, maintenance of child care centre of working women, maintenance of home for destitute children etc have been extended in addition to financial assistance being rendered to 22 beneficiaries under Home Welfare Programme. Scholarships to 81 handicapped students, widow pension to 7,964 widows, monthly pension for 3,893 handicapped persons and old-age pensions to 14,116 persons have been extended through the Revenue Department. Under the Integrated Child Development Scheme there are 559 Anganawadis and rich food has been supplied to children, pregnant women and post-natal women. Rs. 87 lakhs have been spent in the current year for women and children welfare under both Plan and Non-Plan schemes.

Table 36

Table showing the socio economic growth

Sl. No.	Subject	Unit	1970-71	1980-81	1990-91
1	2	3	4	5	6
1.	Density of Population (per sq.km)	-	93	113	118
2.	Population growth of the decade	P.C (%)	40.72	22.10	5.05
3.	Rural Population in total population	P.C.	84.48	84.63	83.96
4.	Population of S.Cs. & STs in total population	P.C	16.80	18.61	N.A.
5.	Workers in total population	P.C.	40.40	47.18	N.A.
6.	Agricultural workers in total workers	P.C.	7.94	22.37	N.A.
7.	Forest area in total geographical area	P.C.	33.00	33.00	33.00

1	2	3	4	5	6
8.	Gross-sown area in total geographical area	P.C.	33.58	34.47	36.69
9.	Net sown area in gross-sown area	P.C.	89.80	99.18	97.98
10.	<i>Per capita</i> net sown area	Ha.	0.32	0.30	0.30
11.	<i>Per capita</i> net sown area per agriculturists	Ha.	3.47	2.91	3.11
12.	Net irrigated area in net sown area	P.C.	7.72	2.30	2.83
13.	Net irrigated area in gross sown area	P.C.	7.52	2.40	3.90
14.	Area of high-yielding crops in gross sown area	P.C.	10.25	18.17	19.86
15.	Area of grains in gross-sown area	P.C.	40.23	32.36	31.17
16.	Area of pulses in gross-sown area	P.C.	1.76	0.65	0.64
17.	Production of rice per ha.	Kgs.	1,726	2,176	2143
18.	Production of Ragi per ha.	Kgs.	1,036	1,017	N.A.
19.	Production of Groundnut per ha.	Kgs.	1,168	1,017	N.A.
20.	Rural electrification	P.C.	28.35	47.00	99.00
21.	Energising of pumpsets	Nos.	800	1200	2800
22.	Banks per lakh population	Nos.	11	15	19
23.	Bank deposits per lakh population	Rs. Crores	N.A.	N.A.	33
24.	Members of Co-operative societies per lakh population	Nos.	410	495	506
25.	Per capita loans distributed to members of Co-operative societies	Rs.	N.A.	1490	N.A.
26.	Automobiles per one thousand persons	Nos.	6	16	35
27.	Length of roads per one lakh population	Km.	329	527	574
28.	Length of roads per 100 sq.km.	Km.	30	59	67
29.	Post offices per one lakh population	Nos.	42	43	44
30.	Telephones per thousand population	Nos.	2	5	13
31.	Candidates registered for employment per lakh population	Nos.	797	1,240	2,887
32.	Per capita income at current rates	Rs.	2,008	2,755	4,887
33.	Per capita income at fixed rates	Rs.	2,008	1,684	N.A.
34.	Per capita income in Agriculture sector at current rates	Rs.	1,947	3,839	N.A.
35.	Per capita income in Agriculture sector at fixed rates	Rs.	1,642	N.A.	N.A.
36.	Children in age group 5-14 of total children	P.C.	70.00	70.60	N.A.
37.	Average number of children in Primary schools	Nos.	197	194	180

1	2	3	4	5	6
38. Literacy (males)		P.C.	50.22	56.53	N.A.
39. Literacy (female)		P.C.	37.79	43.80	N.A.
40. Literacy for total population		P.C.	44.80	50.18	N.A.
41. Population per Health unit (including hospitals, Primary Health Centres, dispensaries)		No.	5000	8000	2000
42. Oil seed in gross sown area		P.C.	0.20	0.04	0.06
43. Coffee in gross sown area		P.C.	N.A.	49.00	49.27
44. Number of beds in hospitals per lakh population		Nos.	324	368	312
45. Family planning operation per lakh population		Nos.	N.A.	N.A.	844
46. Fair price shops per lakh population		Nos.	42	38	52
47. No. of villages having drinking water supply in total no. of villages		P.C.	N.A.	72	N.A.
48. Population per cinema theatre		Nos.	47	33	30

(in 1000)

Source: Social and Economic Review of Kodagu District 1990-91

WESTERN GHATS DEVELOPMENT PROGRAMME

The Western Ghats Development Programme was initiated with the intention of developing backward places and eliminating regional imbalance and to improve the economic conditions of the people by duly utilising the natural resources available in the area. The project was initiated in Karnataka, Maharashtra, Kerala, Tamil Nadu and Goa in some of their districts and taluks. It became operative in January 1975. In Karnataka 55 taluks in 9 districts were identified for inclusion in this programme. However the Planning Commission duly accepting the recommendation of Second Irrigation Commission and included 28 taluks coming in Mysore, Kodagu, Uttara Kannada, Hassan, Chikmagalur, Shimoga and Belgaum districts of the state. In 1979-80, 12 taluks in Dharwad district were included in the programme bringing the total to 40 taluks in 9 districts. Works pertaining to agriculture, animal husbandry, horticulture, forest, minor irrigation, sericulture, industries and tourism development were started under this programme.

As per the decision taken in the meeting of the Secretaries on 5th August 1980, the evaluation of the progress achieved in the works of the Western Ghats Development Programme was initiated. The study team of this programme selected some taluks coming under the purview of the Western Ghats Development Programme and certain schemes were evaluated as pilot projects, Two taluks each in Kodagu and Uttara-Kannada district were selected for evaluation. Selected programmes in

Virajpet and Somvarpet taluks of Kodagu district and Kumta and Honnavar taluks in Uttara Kannada districts were taken up and the reports of evaluation were published in 1982.

As per the report of the study team only two minor irrigation works in Somvarpet taluk had been completed and providing benefit to 8 persons while one unit was functioning in Somvarpet taluk in respect of soil conservation, two units were functioning in Virajpet taluk; 10 persons were benefited by one unit in Somvarpet taluk and 18 person were benefited by the two units in Virajpet taluk. Regarding forest development, 10 persons were benefited in Virajpet taluk.

Though all the three taluks in Kodagu district came under the perview of Western Ghats Development programme and all the scheme under the programme were implemented, highest expenditure was incurred under minor irrigation followed by Agriculture and Forest. Only 20 percent of the funds allotted for the Animal Husbandry had been spent.

The funds allocated to the various plan schemes in Kodagu district from 1974-75 to 1978-80 and amount spent are given below. The amount noted in brackets denote the percentage expenditure. Agriculture Rs. 10.47 lakhs and Rs. 6.52 lakhs (62.27); Forest Rs. 5.13 lakhs and Rs. 4.77 lakhs (92.88); Animal husbandry Rs. 2.87 lakhs and Rs. 0.57 lakhs (19.86), Tourism Development Rs. 3.00 lakhs and Rs. 3.00 lakhs (100); Industries Rs. 1.00 lakhs and Rs. 0.61 lakhs (61.00), minor irrigation Rs. 12.07 lakhs and Rs. 12.07 lakhs (100). When companred to the grants allocated for the district plan the grants allotted under the Western Ghats Development programme is very less. While a total of Rs. 374.83 lakhs were allotted for 1978-79 and 1979-80 together for district plan the grants allotted for the same two years under the Western Ghats Development Programme totalled only Rs. 19.46 lakhs.

Review of Minor Irrigation

Minor irrigation works were implemented by the Public Works Department. The study team selected only Somvarpet taluk in the district for evaluation of Minor Irrigation works and conducted studies in respect of seven tank works executed under Western Ghats Development programme. While five tanks were newly constructed two were old existing tanks which were restored. Among the five new tanks only Mullur tank was completed in March 1981 while the other four tanks namely Malambi, Volagunda, Sangapur and Harohalli tanks were incomplete. The restoration works of both Shanthaveri tank and Anekere tanks were completed. Several reasons were brought to the notice of the study team for not completing the tank works noted above. Lack of facilities, selection of sites, scarcity of labour, fact that wages fixed under the schedule rates of Public Works Department were lower than those of the wages in coffee estates and that the working period for these works were only six months in a year were the main reasons.

Of the seven tanks which were executed under the Western Ghats Development Programme in Somvarpet taluk, two tanks which were restored were selected for evaluation. The particulars in respect of these two tanks are listed in the table below.

Table No. 37

Sl.No.	Particulars	Shanthaveri Tank	Anekere Tank
1.	Location	Shanthaveri	Basavanur
2.	Estimated cost (In Rs)	34,500	30,000
3.	Cost of land per ha.	4,980	2,500
4.	Length of bund (mtrs.)	240	125
5.	Water level (units)	1.6	13.30
6.	Catchment area (sq. mtrs.)	0.04	1.00
7.	Irrigated area (ha.)	6.92	12.00
8.	Length of channel (mtrs.)	350	920
9.	Villages benefited	Heggala	Kudige Farm & Basavanur

The restoration of Shanthaveri tank was commenced in March 1979 and was completed in December 1980. The restoration of Anekere tank started in April 1979 and was completed in August 1979. The channels under both the tanks had not been completed till November 1981.

The life of these tanks has been estimated to be about 30-40 years. The estimated cost of the two works totalled to Rs. 64,500 and the expenditure incurred and man days generated are listed in the table below.

Table 38

Name of the Bank	Expenditure (in Rs.)	Man days created
Shanthaveri Tank	33,530	4,350
Anekere Tank	29,154	3,200

The number of workers engaged for the restoration works of these tanks were respectively 280 and 250 and all were local persons. Of them the number of Scheduled Caste and Scheduled Tribe workers on works of Shanthaveri and Anekere tanks were respectively 25 and 20. The storage of these tanks were respectively 3,42,108 TCM and 42,108 TCM and their atchcut water feeding areas were 6.92 ha and 12 ha respectively. In 1980-81 Water was released from Shanthaveri tank for irrigation and 7 farmers have benefited under this tank. Though Anekere tank was ready to release water for irrigation the lands below the tank being government land, the water from this tank has not been beneficially utilised. Of the seven beneficiaries of the Shanthaveri tank five are small and very small farmers with 1-2 ha of lands, one a marginal farmer and the other had 7.2 ha of land. The average number of workers in these seven families was three. They owned 14.80 ha in all, of which 6.92 ha came under the command of Shanthaveri tank. Their main crop was paddy and the yield per hectare was 26.59 quintals.

Review of Soil Conservation

The Soil conservation scheme was implemented in Kodagu district in 1977-78 through the district soil conservation office under the Western Ghats Development Programme by digging farm ponds. In Virajpet taluk lands were made fit for ploughing by amalgamation of paddy plots. Rs. 4.50 lakhs were allotted for this scheme from 1977-78 to 1979-80 while only Rs. 1.00 lakh has been spent; 25 percent of this amount is in the form of subsidy and 75 percent as loan and the concerned farmers were required to repay it in fifteen annual instalments with 6 percent interest.

Table No. 39

Table showing data regarding the soil conservation up to end of March 1980 in selected taluks of the district.

Taluk	Particulars of soil conservation work	No. of works	Year of commencement	Targetted date of completion	Status of works
Somvarpet	Farm ponds	7	Jan. 1978	Mar. 1978	Incomplete
	Farm ponds	6	Feb. 1980	Mar. 1980	Apr. 1980
Virajpet	Farm ponds	12	Feb. 1978	Mar. 1979	Incomplete
	Amalgamation of fragmented holdings	8	Jan. 1978	Mar. 1978	July 1978

The assessed period of usefulness of farm ponds is 50 years while that of amalgamation of fragmented holdings is 10-15 years. The farm ponds in Somvarpet taluk are in 34.25 ha and have generated 9,523 man days, while the farm ponds in Virajpet taluk are spread over 46.26 ha and generated 9,207 man days. The amalgamation of fragmented paddy holdings measured 13.07 ha and it generated 3,247 man days. The details of expenditure incurred on the soil conservation scheme in the district is furnished in the table below.

Table No 40

Taluk	Soil conservation work	Loan amount Rs.	Financial Assistance Rs.	Total Expenditure Rs.
Somvarpet	Farm ponds	28,159	9,350	37,509
Virajpet	Farm ponds	35,780	11,927	47,707
	Amalgamation of fragmented holdings	12,277	4,269	16,546
	Total	76,216	25,546	1,01,762

As per the above table the total expenditure is about Rs. 1.02 lakhs inclusive of financial assistance of about Rs. 25,000. In Somvarpet taluk there are 10 beneficiaries and in Virajpet Taluk

there are 18 including a woman. In Somvarpet taluk all the beneficiaries were owning more than 4 ha of holdings. In Virajpet taluk of the 18 beneficiaries the holdings of one was 2.3 ha, and one had 3.4 ha and the holdings of the remaining beneficiaries exceeded 4 ha.

Table No 41

Table showing the total area under soil conservation scheme and number of beneficiaries with the total area of their holdings

Taluk	Soil conservation work	No. of beneficiaries	Total area held by beneficiaries ha.	Area under the soil conservation programme ha.
Somvarpet	Farm ponds	10	588.37	26.05
Virajpet	Farm ponds	10	95.79	27.92
	Amalgamation of fragmented holdings	8	102.00	14.55

As per the above table it is observed that in Somvarpet taluk the percentage of area of the holdings which benefited from Farm ponds to the total area held by them is 4.43, while it is 29.15 percent in Virajpet taluk and it works out to 14.26 percent in respect of the amalgamated holdings.

Among the beneficiaries of the soil conservation programme in Somvarpet taluk one owned 472 ha and another owned 96 ha of land. The remaining eight held lands from 5.96 ha to 21.93 ha. Under the scheme of amalgamation of holdings also the beneficiaries held lands from 3.20 ha to 23.20 ha. It is thus evident that the soil conservation programme has benefited big land holders.

It is reported that as a result of soil conservation programme new area of 4 ha were made fit for paddy cultivation and it became possible to produce 34.12 quintals of paddy per hectare. The programme resulted in increase in the land value to the tune of 25 to 100 percent as a result of increased yield reaped. The farm ponds have helped sprinkler irrigation of coffee estates in addition to assisting kariff paddy crops to a great extent and rabi paddy to certain extent.

Review of Forests

Under the Western Ghats Development Programme to increase the forest products of the local people, works of local forests was started in 1975-76. Under this programme growing cashew in small forests, growing match wood and planting bamboo shoots were commenced by the Forest Department.

Table No. 42

Table showing the grants and expenditure allotted for Forest Development in the district from 1975-76 to 1979-80

Year	(Rs. in lakhs)	
	Grant	Expenditure
1975-76	0.38	0.37
1976-77	0.90	0.92
1977-78	1.10	0.88
1978-79	1.55	1.46
1979-80	1.20	1.14
Total	5.13	4.77

The evaluation study team has conducted studies in respect of a Social forestry programme in Virajpet taluk. Rs. 1,28,710 were spent on this programme from 1975-76 upto 1979-80. This has generated about 11,112 mandays, however it was observed that there was scarcity of labour. All those who worked for this programme had come from other states. All the ten beneficiaries of this programme were landless Schedule Caste persons. In these ten families there were 27 workers, of whom 15 were men and 12 were women who were capable of working as forest workers. These families generated 6150 mandays and while men earned Rs. 7.00 per day, women earned Rs. 5.00 per day. The average annual income of these families before the Western Ghats Development Programme was Rs. 4,952 and it had risen to 10,297 by 1979-80, as revealed by the evaluation report.

Table 43

Statement showing the progress achieved in various schemes under Western Ghats Development Programme in Kodagu District from 1987- 88 to 1991-92.

Sl. No.	Name of the scheme	Target amount (Rs. in lakhs)	Expenditure upto the end of March 92 (Rs. in lakhs)	Physical target of works (Nos.)	Achievements of works (Nos..)
1	2	3	4	5	6
1.	Soil Conservation	19.462	19.462	29	29
2.	Animal Husbandry	13.800	13.800	19	19
3.	Fishery	92.798	64.280	1	-
4.	Horticulture	20.965	20.539	11	11
5.	Forestry	191.480	189.404	189	189
6.	Minor Irrigation	86.852	86.852	58	41
7.	Industry	15.727	15.618	187	187

(persons trained) (Persons trained,

1	2	3	4	5	6
8. Sericulture		11.913	11.800	395	395
				(beneficiaries)	(beneficiaries)
9. Foot bridges		33.100	33.100	91	70
10. Spices		35.310	31.060	534	534
				(Subsidy- beneficiaries)	(Subsidy- beneficiaries)

Sources: Kodagu Zilla Parishad, Madikeri

Gobar Gas and Astra Ovens

The programme of producing gobar gas from cowdung was started in the district in 1981-82. In order to make this benefit available to rural people at low cost, the Central government has been providing financial assistance for every unit besides arranging loan facilities through banks. The Zilla Parishads and Khadi and Village Industries Board supervise this through technical assistance. The following table showing the talukwise number of gobar gas units installed in the district from 1981-82 up to end of March 1992.

Table No. 44

Year	Madikeri Taluk	Somvarpet Taluk	Virajpet Taluk	Total
1981-82	-	12	9	21
1982-83	-	2	19	21
1983-84	10	22	18	50
1984-85	9	18	8	35
1985-86	43	53	26	122
1986-87	39	152	38	229
1987-88	87	356	187	610
1988-89	39	34	50	123
1989-90	26	20	74	120
1990-91	17	18	24	59
1991-92	20	51	41	112
Total	290	718	494	1,502

ASTRA oven was designed by the ASTRA division of Indian Institute of Science, Bangalore. This oven not only provides smoke-free cooking facility but also saves fuel to the tune of 60 percent. It costs Rs. 150. The State Government gives a subsidy of Rs. 50. The Zilla Parishad provides training regarding its usage. The ASTRA oven scheme is enforced in the district since 1984-85. The table below furnishes the details of the ASTRA ovens and portable ovens installed in the district from 1984-85 upto end of March 1992.

Table No 45

Year	Madikeri		Somvarpet		Virajpet		Total
	Astra oven	Mobile oven	Astra oven	Mobile oven	Astra oven	Mobile oven	
1	2	3	4	5	6	7	8
1984-85	334	-	300	-	260	-	894
1985-86	50	-	50	-	132	-	232
1986-87	280	-	9	-	805	-	1,094
1987-88	-	-	200	-	203	-	403
1988-89	200	-	260	-	300	-	760
1989-90	380	100	570	150	650	150	2,000
1990-91	-	430	-	450	-	550	1,430
1991-92	200	-	450	-	350	-	1,000
Total	1,444	530	1,839	600	2,700	700	7,813

Floods and Droughts

As the South-West Monsoons cause heavy rains in the district the havoc of floods also is considerable here. There are also instances of the district experiencing severe decline in agricultural production and even famine during the years when there is less than normal or untimely rains. During 1868-69 in the eastern parts of the district, which are adjoining Mysore district the rains failed in rabi season and there was reduction of agricultural products. As production of food grains was much below expectation, scarcity conditions prevailed, and as a result famile relief operations were taken up in a large scale. The district registered a rainfall of 93.74 inches during that year which is recorded as the lowest rainfall in any year. In 1867-68 the district had 109.9 inches of rainfall. It was 108.66 inches in 1870-71 and 130.00 inches in 1871-72. In this year the north Kodagu experienced heavy rains which caused floods in streams and rivers and as a result large quantities of harvested crops were lost. In 1900-01 due to scarcity of rainfall in the district experienced famine which it had never been experienced before. In addition the available food grains in the district were transported to neighbouring districts and not only there was acute scarcity but the inflated costs put people into severe hardship.

Though there was extremely heavy rainfall during August 1923 and July 1924, there was sufficient time for transplantation of paddy and production of paddy did not suffer. Consequent on heavy rains in July 1924 there were floods in all the rivers in the district. Madikeri had a record rainfall of 14.25 inches on 17th July 1924. On July 25th 1924 Bhagamandala had 33.15 inches of rainfall which is equal to average annual rainfall of Bangalore District. The total rainfall Bhagamandala had in this month (July 1924) was 223.06 inches. As a result the Kodagu district was cut off by roads and communications from the outside world for about three days. Siddpura, Periambadi Ghat roads, Kuttampuzha girder bridge was washed out. Even the road to Mangalore was blocked. Bhagamandala suffered to heavy losses. The flood have spread to low lying areas of Fraserpet (Kushalnagar) and even to the main street of Ramapura. The tramway which was laid in Makutta had also been washed away.

In 1952-53 had fairly good monsoon in the beginning as a result of failure of rain in September and November crops suffered. The monsoon rains of 1961 caused heavy losses to crops and properties. About 240 inches of rainfall was recorded in that year and the loss was estimated to be Rs. 1,00,33,350 and the State government had spent Rs. 83 lakhs on relief works. The Sampaje Ghat road had been washed away in this year also. Communication to Mangalore from Madikeri was deviated through Bhagamandala. The 1961 floods were recorded as heaviest floods.

The heaviest rainfall in 1990-91 has occurred in Bhagamandala which is in the Western part of the district being 5,673.6 mm and the lowest rainfall was recorded in Kushalnagar which is in the eastern part being 507.2 mm. When compared to the average rainfall 2,718 mm (1901-1970) it is seen that the deficiency is 16.06 percent. (For table 46 see page 502)

Scope for Development

Among the smallest districts in the State Kodagu stands in second place. As it has abundant forest wealth opportunities abound in production of sandalwood oil, match stick, plywood, honey, pepper, wood work, cane works etc which are dependent on forest products, and also cardamum, oil, tyres and tubes, fruit processing units etc. Which are dependant on horticultural products. There is possibility of obtaining training from the Tibetans who have settled in the neighbouring district in respect of weaving carpets and decorative mats etc. and to put them to good use in the district, and also for sale in outside markets. This has already been started as an experimental measure in some places. As only a third of the district has level grounds and the remaining area is mountainous, there are opportunities of growing more horticultural and plantation crops like coffee, cardamum, rubber, pepper, orange, arecanut etc. in addition to the normal agricultural crops. The main agricultural crops of the district are paddy and ragi. Coffee has occupied vast areas and comprises 59 percent of the coffee estates in the state. There are about 44,000 ha of coffee estates which form 41 percent of coffee growing area in the state. There are 3,923 cardamum plantations spread over 12,900 ha. As there is heavy demand for vegetables encouragement is needed to grow them. The main fruits grown in the district are orange, ananus, banana, mango, sapota, papaya, guava and jack fruits. It should be possible to increase these products and also process and store them by giving more attention on this subject. It is not possible to establish major industries in the district due to lack of power and mineral wealth, however there is sufficient scope for establishment of small scale industries which are dependent on forest and horticultural produce.

The progress of the district in industrial agricultural and other sectors mainly depend on power supply. Surveys were conducted for Barapole Hydro-Electric Project as early as in 1945 and it was estimated that 30,000 to 40,000 K.W. power could be generated from this project. However due to certain reasons this has not been implemented. If this project is implemented it could wipe out the scarcity of power in the district. Even the wind mill which is installed at Talacauvery with the Danish aid for generating power by force of wind has not been functioning satisfactorily and hence the district has been deprived of power generation. By implementing these who projects it should be possible to include this district in list of those generating power and wipe off the power scarcity in the district.

Table No. 46

Statement showing the details of Losses which occurred due to national calamities in Kodagu District and the Relief amounts spent from 1985-86 to 1991-92

Sl. No.	Years	No. of families affected due to house collapse due to rains	No. of families who lost crops	No. of families who lost live	Amounts of relief paid for loss of house and live stock (in Rs)	No. of families who suffered losses on account of fire accident	Amounts of relief paid for fire accidents (in Rs)
1.	1985-86	15	108	-	22,030	59	19,650
2.	1986-87	204	332	-	74,150	73	20,000
3.	1987-88	65	427	-	71,700	112	38,750
4.	1988-89	99	30	-	32,150	32	28,150
5.	1989-90	1,943	886	-	10,77,490	90	42,400
6.	1990-91	111	402	119 (634)	3,24,949	57	61,450
7.	1991-92	866	5,789	52	15,53,127	85	80,575

Source : Office of the Deputy Commissioner, Madikeri

Note : Figures in bracket state the number livestock

Along with the production of coffee cardamum and pepper if the orange crop which is declining due to disease and the Galibeedu Tea Projects are satisfactorily taken care of it should be possible to provide employment to the unemployed of the district and also rise the *per capita* income. After the tramway which was installed at Makutta was washed away in 1924, the work of transportation of timber has suffered as the tramway has not been repaired and restored. The small rivers and streams in the district facilitate transportation of timber during rainy season. Along with the existing facilities if the tramway is restored and the small streams and rivers are also utilised properly it should be possible to transport the forest produce faster and this could lead the district on the path of economic prosperity.

The development of small scale industries in the district depends on the forest and horticultural produce and also on demand based colour photo industry, cutting building stones, production of beaten rice, manufacture of envelopes, pins and gemclips, printed circuit boards, production of match sticks and match boxes, manufacture of plastic goods etc and there is sufficient scope for expanding the production of these goods. In addition as financial assistance for these industries is also available through financial institutions and thus would spur the development of industries in the district. This would also result in providing employment opportunities to the unemployed, increase the *per capita* income of the workers and also help increasing the purchase power of the citizens of the district.

Tassar silk production has not got the required attention. Scope for development of tourism in the district is abundant. There is enormous scope for bringing to the notice of the world the natural beauty of Kodagu.