

**ECONOMIC HISTORY OF KERALA
FROM 1800 TO 1947 AD
PART II : TRAVANCORE**

**Change in Agriculture, Industry, Transport,
Power and Education**

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Preface

Though a lot of literature is available on political and social history of Kerala, not much attempts have been made to study the economic history. As a scholar interested in Kerala's economic studies, I made some attempts to study the economic history of Kerala during the period 1986 and 1989, when I was a visiting scholar at Centre for Development Studies, Thiruvananthapuram. Based on my research, a few papers were published on agricultural backwardness of Malabar (Social Scientist, June-July 1988), survey of studies on Agricultural Development from 1800 AD to 1980 AD (Centre for Development Studies, Working Paper No. 220), land tenures, agrarian change etc. Though I wish to publish my studies in a book form, it has not materialised. In this context, I publish my studies on economic history of Kerala covering the period between 1800 AD and 1947 AD in two parts viz. Malabar and Travancore in the website www.keralaeconomy.com. The second part examining the economic history of Travancore between 1800 and 1947 AD is presented here.

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CHAPTER 1

AGRICULTURAL CHANGE

The erstwhile princely State of Travancore, forming southern part of present day Kerala, had achieved considerable progress in agriculture during the 19th century and first half of the 20th century compared to Malabar region. Not much attempts have been made to study the agricultural development of Travancore¹. In this chapter our objective is to examine the factors that contributed to the agricultural development of Travancore during the 19th and the first half of the 20th century.

In the examination of agricultural change of Travancore during one and a half century, we have to discuss three issues. First, compared to Malabar agricultural policies pursued in Travancore in some areas such as land tenure, land taxation, irrigation, infrastructure, plantation crops, cultivation of waste and forest land, reclamation of land from backwaters etc were more helpful to agricultural development. Second, the Travancore government was forced to permit the severe colonial exploitation of British colonial power at all fronts. Large areas of government land was given to colonial planters at free of cost or at nominal price and liberal concessions were given to other colonial investors. Third, not much change have occurred to the horrible caste system and caste practices which treated the lower caste people as slaves, who worked from dawn to dust for producing crops and other goods to the upper caste people during 19th century. The social change occurred in this front was small even during the first half of the 20th century.

The chapter is presented in three sections. The first section gives a review of the overall agricultural development of Travancore. The second section provides an examination of the polices and factors that contributed to agricultural change. And the third section examines the factors which stood as obstacles to agricultural development.

SECTION I

Agricultural Development of Travancore: A Review

1. Geographic Features

Travancore had an area of about 7662 square miles². Of which more than 2500 square miles consisted of forests and backwaters. We can divide Travancore in to three divisions on the basis of its physical features. The first division is the low land division consisted an area of 1371 square miles and comprised of the flat alluvial and sandy tracts along the sea coast. The mid land division is the second division lies east of the low land division had an area of about 2700 square miles and comprises of low hills and hillocks of varying sizes and heights dividing the country into numerous valleys. The high land division comprises the eastern tracts mainly of dense forests and has a total area of about 3500 square miles.

A special geographic feature of Travancore was that it had a number of rivers and an extensive backwater system. Travancore had a very favourable climate for agricultural operations. The seasons in Travancore were mainly controlled by the two periods of rainfall viz. the south west monsoon from June to August and North East Monsoon from October to December. The whole of the state except the southern taluks enjoyed more or less satisfactory rainfall. Though the soils of Travancore vary in their nature on the whole, it was moderately good for cultivation.

2. Population supported by agriculture

The percentage of population supported by agricultural sector gave us a rough idea about the stage of agricultural development. The first attempt to estimate the population of Travancore was made in 1816 and the total population was estimated as nine lakh (Table 1.1). But this estimate and the subsequent estimates in 1836 and 1854 were not much reliable as they are not taken in a systematic manner³. By the beginning of 19th century, Travancore was a backward economy having the features of a traditional agricultural economy. Though we do not know the exact percentage of population supported by agriculture, the available evidences suggest that more than 80 percent of the

people were supported by agriculture. The rest of the 20 percent were supported by occupations such as government jobs, religious professions, cotton weavings, spinning, coir making, pottery making, domestic services, carpentry, masonry, smithy, trade, transport, commerce etc.

During the 19th century Travancore witnessed rapid changes in agricultural as evident from the shift in population to non-agricultural activities. The 1891 census suggested that the percentage of population supported by agriculture was 69 percent (Table 1.2). By 1901 we find that the persons supported by agriculture further registered a decline to 63 percent (Table 1.2). The trend in the development of agriculture sector continued during the first three decades of the 20th century till the depression which started in 1927-28. The population supported by agriculture also registered a continuous decline during the first two decades of 20th century (Table 1.3).

Table 1.1
Population Growth in Travancore

Year of Census	Total Population* (in lakh)	Growth rate (Percent)
1816	9.07	--
1836	12.81	(+) 41.2
1854	12.63	(-) 1.4
1875	23.11	(+) 83.0
1881	24.01	(+) 3.8
1891	25.58	(+) 6.5
1901	29.52	(+) 15.4
1911	34.29	(+) 16.2
1921	40.06	(+) 16.8
1931	50.96	(+) 27.2
1941	60.70	(+) 19.1

*According to Ward and Conner's Survey

Source: 1) Velupillai T.K., 1940, Travancore State Manual, Vol.1, P.374

2) Census of India, 1941, Vol.25, Travancore, P.13

The decade that followed the first world war was marked by the higher prices of agricultural products resulting in all round expansion of agricultural sector. But the depression had its adverse impact in all the sectors, which in effect paralysed the whole economy. Compared to agriculture, the effect of depression on non-agricultural sectors

such as industry, transport, trade etc. were severe, resulting in the loss of employment opportunities in those sectors. The 1931 census suggested that there had been an increase in the ratio of agricultural workers to total population in 1931 census compared to the previous census (Table 1.4).

Table 1.2
Population Supported by Occupation

Sl. No.	Classification of population	1891 Census (Percent)	1901 Census (Percent)
1	Pasture and Agriculture	41.37	47.45
2	Unskilled labour	28.19	16.43
	Total Agriculture	69.56	63.88
3	Government	2.00	1.63
4	Personal Service	3.14	2.14
5	Preparation and supply of material substance	16.85	25.86
6	Commerce, transport and storage	6.41	3.59
7	Profession	1.72	2.58
8	Means of independent occupation	0.32	0.32
	Total	100.00	100.00

Source: Census of India 1901, Vol. 26, Travancore. PP 414-520.

Table 1.3
Population Supported by Agriculture

Year	Percentage of Population
1981	69.6
1901	63.8
1911	53.6
1921	51.7
1931	54.3
1941	57.4

Source : 1.Census of India, 1901, Vol.26, Travancore PP. 414-420
2. Census of India, 1941, Vol.25, Travancore, P.38.

A significant development related to population was the migration of population from one region to another especially since 1880's. As a result of the favourable conditions created for starting plantations, reclamation of kayal lands and cultivation of waste and forest lands, large number of people began to migrate from southern taluks to northern

and eastern taluks. A review of the population growth among natural divisions also showed that the highest increase was in high land divisions where plantations were started in large scale (Table 1.5). This population growth may be mainly attributed to migration.

3. Important Crops

Among the numerous crops cultivated in Travancore, the important ones were rice, coconut, tapioca, pepper, rubber, tea, ginger and coffee. Among these crops tapioca, coffee, tea and rubber were not native crops, but were introduced to Travancore.

a) Rice

Rice was the staple food of the people and the most important crop of Travancore. Rice was mainly cultivated in low land and midland divisions. In high land division only a small portion of the land was utilized for rice cultivation. Though rice was cultivated throughout the State, Kuttanad and Nanjanad were the two principal rice growing areas.

Table 1.4
Number of workers per 10,000 of the aggregate population

Sl. No	Workers	1921	1931	1941
1	Exploitation of animals and vegetation	1,670	1,848	1,816
2	Persons living on their income	6	6	11
3	Unspecified occupations	514	232	368
4	Public force and administration	42	41	56
5	Minerals	4	6	8
6	Industry	819	689	774
7	Transport	79	74	64
8	Trade	393	306	297
9	Professions and liberal Arts	142	111	112
10	Domestic Service	20	1,405	160
11	Unproductive	12	8	33
	Total Workers	3701	4,726	3,699

Source: Census of India, 1941, Vol.25, Travancore, P. 65

Table 1.5
Population Growth: Division wise (Percentage increase)

Divisions	1881- 91	1891- 01	1901- 11	1911- 21	1921- 31	1931- 41	1901- 41
Administrative							
1 Southern	3.1	15.7	17.5	17.0	24.0	17.7	100.7
2 Central	9.7	12.8	14.6	16.0	25.3	18.2	96.9
3 Northern	5.0	17.6	17.1	17.7	32.9	21.6	122.7
4 High Range	136.2	46.8					
Natural							
1 Low land	5.2	14.3	13.2	15.0	24.2	17.4	89.9
2 Mid land	7.5	15.9	18.2	17.4	27.5	20.1	112.4
3 High land	13.2	24.4	30.2	32.2	54.8	25.0	232.8
State	6.5	15.4	16.2	16.8	27.2	19.1	105.6

Source: a) Velupillai T. K., Travancore State Manual Vol. I, P. 376, 377.

b) Census of India, 1941, Vol.25, Travancore Part II, P. 8.

Available evidences suggested that Travancore exported rice during 1840's⁴. But during 1850's due to the rapid development of the Travancore economy there was greater demand for paddy. And the Travancore government requested the British government to remove the duty on import of paddy from colonial territories to Travancore. And the colonial government had removed the duty on grain and rice imported to Travancore from British territories in 1861. Consequently the Travancore market began to be flooded with rice from neighbouring British territories resulting in the steep fall of the price of rice. This fall in the price of rice began to discourage rice cultivation and encouraged the cultivation of cash crops in the rice cultivating areas. A trend in the growth of area under paddy during the first half of the 20th century showed a decline, except during the depression period (Table 1.6).

b) Coconut

Coconut was the second major crop of Travancore, which had been cultivated throughout the State from very early times. Among the three natural divisions of Travancore, coconut cultivation mainly concentrated in low land and midland divisions. According to an earliest estimate the total number of coconut in the State was about 110 lakh by the beginning of 1830's⁵. Since then vast areas of waste lands, lands in river banks,

backwaters, valleys, hill slopes etc. were brought under coconut cultivation. As coconut was the most remunerative crop, there had been rapid growth in coconut cultivation. There was good demand for coconut and coconut products in foreign markets and a major portion of the produce was exported. In 1880's the total number of coconut trees in Travancore had increased to about 150 lakh⁶. The significance of coconut crop in Travancore economy was evident from the fact that, coconut and coconut products constituted about 54 percent of the total export earnings of Travancore during 1870's (Table 1.7). Till 1910, nearly 50 percent of the total export earnings of Travancore was from the exports of coconut and coconut products (Table 1.7).

Table 1.6
Area under major crops of Travancore (Acres)

Sl. No.	Crop	1918-19 (Acres)	1928-29 (Acres)	1938-39 (Acres)	1947-48 (Acres)
1	Paddy	638,041 (100)	669,275 (104.9)	656,890 (102.9)	621,945 (97.5)
2	Coconut	459,882 (100)	526,950 (127.2)	584,736 (127.2)	589,080 (128.1)
3	Tapioca	338,952 (100)	485,237 (143.1)	435,430 (128.4)	503,525 (148.5)
4	Rubber	46,476 (100)	56,565 (121.7)	97,677 (210.2)	113,804 (244.8)
5	Tea	51,175 (100)	71,305 (139.3)	77,678 (151.7)	93,294 (182.3)
6	Coffee	-- (100)	--	54,412 (100)	7,115 (13.0)
7	Pepper	--	--	89,325 (100)	88,700 (99.3)
8	Ginger	--	--	26,430 (100)	33,189 (129.5)

Figures in brackets are Index Numbers

Source: Statistics of Travancore from 1819-19 to 1947-48.

The rapid expansion of coconut cultivation during the 19th century continued its trend till the outbreak of depression in 1930's. As coconut and coconut products were exportable commodities, the depression during 1930's had an immediate effect on the prospects of the crop. The steep and sudden fall in the price during 1930's and the

competition from Ceylon had temporarily affected the expansion of coconut cultivation. Barring this temporary set-back, the overall expansion of coconut cultivation during the first half of the 20th century was encouraging. During the first half of the 20th century, the increase in area under coconut was about 18 percent (Table 1.7). By 1941 the area under coconut accounted about 23 percent of the gross cultivated area of Travancore.

c) Pepper

Pepper was a native agricultural product which had been exported to foreign countries from very early times. Monopolizing pepper trade was the primary objective of the foreigners viz. the Portuguese, the Dutch and the British, who came to Malabar Coast. The earliest relations between the British and the Travancore State were established on the basis of a pepper contract. Pepper in Travancore was largely cultivated in the taluks such as Minachil, Kottayam, Changanacherry, Moovattupuzha, Thodupuzha, Chirayinkil, Kottarakkara, Pathanapuram and Nedumangad. The peculiar feature of the cultivation of pepper vine in Travancore was its small scale nature of cultivation. Though it was an important export earner, it was not cultivated in large scale plantation. The peasants grew a little pepper vine in their plot of land along with other crops and sold to the government. The government treated pepper, cardamom and other spices as State monopoly and the peasants were expected to sell their produce to the government agents at fixed prices. The whole crop was auctioned to foreign merchants at Alleppey. The very low price fixed for pepper by the government, the existence of the higher prices in the world market, coupled with the consumption and inefficiency of the governments procurement machinery resulted in large scale smuggling and consequent fall in the exports. This prompted the government to abolish pepper monopoly in 1860 and introduce an export duty which was equal to the duty charged at British Cochin. A guarantee was given that pepper vine would not be taxed and local traders were given freedom to purchase and sell pepper. This helped to increase the production and export of the pepper and the export earnings registered a steady increase from 1870 to 1928 (Table 1.7). The price hike witnessed during 1920's also gave a further stimulus to the cultivation of pepper. But during the depression period the price had registered a sudden fall to half of what prevailed. This steep fall in the price of pepper continued till the end

of 1930's and there was a marginal fall in the area under pepper. By 1941 the area under pepper accounted about 4 percent of the gross cultivated area of Travancore.

Table 1.7

Composition of export from Travancore (Ten year average: Percent of total value)

Commodity	1870-80	1880-90	1890-00	1900-10	1910-20	1920-30	1930-40
Coconut	5.09	2.34	2.29	1.79	1.31	1.31	1.11
Coconut Oil	3.31	2.47	2.69	7.29	6.59	8.61	7.56
Coir	12.35	16.69	18.66	18.89	10.45	11.93	7.53
Copra	333.21	24.99	27.57	22.05	13.61	9.89	4.46
Oilcake	--	--	--	--	1.34	1.34	0.46
Sub Total	53.96	46.49	45.92	50.02	33.30	33.08	21.12
Coffee	6.65	2.86	0.49	0.56	0.28	0.10	0.17
Dry Ginger	4.68	3.76	3.85	2.79	4.56	2.22	2.25
Jaggery	1.03	3.95	3.35	0.73	0.78	0.99	0.51
Pepper	3.55	5.72	8.65	0.14	6.15	10.79	5.80
Arecanut	6.47	3.68	4.02	2.20	1.12	0.83	1.28
Rubber	--	--	--	--	8.01	5.82	5.32
Tea	--	--	--	--	18.46	27.49	22.72
Other	23.66	33.54	28.44	33.56	30.34	18.65	40.36
Commodities							
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Statistics of Travancore and Trade Statistics of Travancore, Various Issues.

d) Tapioca

Tapioca or Cassava was a native agricultural crop of North America and was introduced to Travancore by around 1830's⁷. The soil and climate of Travancore was found most favourable to Tapioca cultivation and the cultivation spread rapidly in southern and central parts of Travancore. Tapioca began to use as a substitute for rice by the poor people consequent to the increase in rice price since 1860's. And by 1880's, Tapioca became an important food item of the poor people. Besides using it as a food, it was also used as a cattle food. The cultivation of Tapioca began to spread to all most all taluks of Travancore with a few exceptions. During the first half of 20th century the growth in the area under tapioca was of the order of about 48 percent (Table 1.6). By 1941, the area under tapioca accounted for 18 percent of the gross cultivated area of Travancore.

e) Coffee

Coffee was introduced in Travancore during the early parts of 19th century⁸. In the late 1830's when the price of coffee was rising rapidly in United States, an English Planter, William Hux Miman started a coffee plantation on the hill of east of Quilon⁹. Since then Coffee cultivation was started at small scale by natives as well as Europeans. In 1843 about 155 counties (910 c.w.t) of coffee was exported from Travancore¹⁰. The lack of encouragement from Travancore government and the failure of early planting stood in the way of expanding coffee cultivation during 1840's. In 1854 Cullen, the British Resident had started a coffee plantation at Velimali near Padmanabhapuram¹¹. Similar attempts were also made to start coffee cultivation in South Travancore. In 1858 another coffee plantation was started in Ashambu hills by clearing forests. But the first attempt to plant coffee on a large scale was made by John Grant, who obtained a free grant of 500 acres of forest land, north of Ashambu hills.

The coffee cultivation which started in the southern Travancore began to spread to northern side. In Peermade the first coffee plantation on large scale was started by Baker, Munro and Stevenson, who obtained a grant of 500 acres of forest land from government to start experimental plantations. By 1860's the success in Coffee cultivation attracted a number of native persons and a large number of people applied to government for allotting waste and forest land for cultivation. This huge demand for land led the government to introduce a system of auction sale in 1865 at a price of Rupee one per acre. Due to the big demand for land, the price of forest land had further increased to Rs. 10 per acre in 1874. The demand for forest land for coffee cultivation was so great that the government got more than Rs. 3 lakhs in 1874-75 from the sale of Land. The coffee exports which started during 1860's began to increase steadily. The bumper crop of 1869-70 and 1871-72 gave an additional stimulus for coffee cultivation resulting in big competition for the procurement of forest land for coffee cultivation.

Besides providing land for coffee plantation through grants and sale of forest and waste lands, the government also followed a policy of encouraging coffee cultivation by constructing roads in coffee planting regions and granting road building subsidies to planters. The construction of road from Kottayam towards the ghat resulted in the

opening up of a few coffee estates in 1862. A cart road was opened from Nagercoil to the foot of the Ashambu hills, where coffee began to cultivate in large scale.

But the boom of coffee cultivation came to an end with the spread of coffee leaf diseases by 1870's. Symptoms of a leaf disease were first noticed in 1870, but it began to spread quickly since 1873. By the end of 1870's the disease began to destroy the coffee plantations and there was a steep decline in coffee cultivation. Several coffee planters experimented tea in the place of coffee. The share of the export earnings from coffee registered a steady decline since 1880 (Table 1.7). During the subsequent decades, the rate of decline in coffee export was so big that coffee lost its position as an important export earner of Travancore. Since 1890, we find that the export earnings from coffee was below one percent of the total export earnings of Travancore (Table 1.7). The coffee planters faced by the uncertainty of the future prospects switched to tea cultivation. The other factors which led to the decline of coffee cultivation were, increase in the price of land for coffee, poor management of the estates, unsuitable selection of land for coffee cultivation and unfavourable climatic conditions. Among these factors, the leaf disease was the major factor which led to the decline of coffee.

f) Tea

Though tea had been cultivating in northern India, it was introduced in Travancore, only during 1860's. The first attempt to cultivate tea was made in 1864 at Peermade on an experimental basis. The failure of coffee due to leaf disease prompted the cultivators of coffee to substitute tea for coffee, as tea was found a suitable crop. By 1880's tea began to cultivate in large scale in Kannan Devan Hills, Peermade hills, Meenachil, Changanacherry, Shencottah, Ponmudi and Ashambu. The Government followed a policy to encourage the cultivation of tea. The early tea planters were mostly Europeans, but native persons also began to cultivate in later years. The boom in the tea at Peermade and High ranges, during 1890's attracted many natives to plantation of tea. During 1894-95 Travancore earned Rs. 10.74 lakhs from the export of tea. By 1904, an area of 25,000 acres of land was under tea cultivation and tea estates provided regular employment to about 18,000 people. The fast expansion taken place in the tea cultivation was evident from the fact that about 12,600 acres of land were taken for tea plantation in 1904. The

cultivation of tea expanded rapidly and by the decade 1910-20, tea became the second largest export earner of Travancore accounting about 18% of the total exports (Table 1.7). The rise in the price of tea during 1921-22 gave an additional stimulus for the tea cultivators. Though there was a fall in the price of tea during the depression period, the rate of fall in export prices was comparatively, lower compared to other exportable products. As a result of this, tea somehow survived the depression and during the decade, 1930-40, became the single largest export earner of Travancore (Table 1.7) Tea plantations were largely concentrated on the Peermade and Devikulam taluks. But tea was also cultivated in taluks such as Thodupuzha, Pathanamthitta, Shencotta, Pathanapuram, Nedumangad, Kalkulam and Thovala. During the first half of the 20th century we can also notice almost a continuous increase in area under tea. During the period between 1919 and 1948, the increase in area under tea was about 82 percent (Table 1.6).

g) Rubber

Experiments in rubber Plantations were started in Travancore around 1890 by European Planters¹². By the first decade of the 20th century European planters started planting rubber in a few estates near Alwaye on the Periyar river banks, mundakayam and in a few places of South Travancore. By the end of the decade about 2500 acres of land was brought under rubber cultivation. Though we do not have much information about the expansion in rubber cultivation, the export figures suggest that rubber cultivation might have spread rapidly during the second decade of the 20th century. During the decade, 1910-20, rubber exports accounted eight percent of the total export earnings of Travancore (Table 1.7). The increase in the price of rubber during 1921-22 also encouraged the expansion of rubber cultivation¹³. Thus the favourable climate prevailed during the first two decades of the 20th century led to the expansion of rubber cultivation in taluks such as Changanacherry, Kottayam, Moovattupuzha, Thodupuzha, Meenachil, Pathanamthitta, Pathanapuram, Shencotta and Kunnathur.

This was one of the exportable commercial crops which was severely hit by the depression. The price of rubber which stood at Rs. 400 for 100 pounds in 1922, declined to around Rs.260 in 1925 and further down to about Rs. 27 in 1935. This heavy fall in

price had a severe impact on all categories of people connected with rubber. According to one estimate about 75,000 persons might have been thrown out of employment from rubber and tea cultivation due to the depression¹⁴. In spite of the severe setback, the rubber remained in Travancore probably because of the fact that rubber is a plantation crop requiring investment only in the initial years. By the end of 1930's, with the improvement in price situation, the rubber regained its pre depression position. The cultivation also began to expand rapidly during 1940's (Table 1.6).

4. Livestock

The earliest account about the livestock of Travancore was given by Ward and Conner in 1820. According to them Travancore had 3.82 lakh cattle inclusive of buffaloes and 27,000 sheep and goats¹⁵. They described the Travancore cattle as diminutive in size, small of build and put in the category of poor breed. They attributed climatic conditions, ignorance of poor people to rear cattle, inadequacy of the food given to cattle and poor breed as factors contributing to poor yield from cattle. There was not much improvement in the breed of the cattle during the 19th century. Cows were divided into different breeds according to the locality to which they belonged. There were also a few cross breeds from Nellore, Coimbatore, Gujarat, Konkan, Madras and Tinnevely. But the number of such cows were very few and were brought to Travancore by rich people and Europeans. Due to the existence of feudal and restrictive social structure, these cross breed cows were not available to the ordinary peasants. This prevented the spread of cross breed cows in Travancore.

Except a few cross breed cattle possessed by rich people and Europeans, the entire cattle of Travancore belonged to the local breeds. The local breeds of oxen, buffaloes, goats and sheep were diminutive in size and largely possessed by the common people. Bullocks were used to pull carts, and agricultural operations. Male as well as female Buffaloes were used for ploughing wet lands and other agricultural operations. Due to inadequate feeding and lack of knowledge about nutritional feeds, the yield from the cows and buffaloes were very meagre. Another reason for the low yield of cattle was the inability of the ordinary people to give sufficient food to the cattle as the people themselves lived in poverty. Due to lack of knowledge about cattle medicines and

absence of cattle treatment facilities, a good number of cattle were killed by the outbreak of communicable cattle diseases. The government started a veterinary hospital only in 1887. The cattle diseases which were common in Travancore were foot and mouth diseases, cow-pox and cattle plague.

The religious taboos and social practices also stood as serious obstacle to cattle development in Travancore. The upper caste Hindu's, a highly religious and orthodox people, were very strict in observing religious and caste rules which retarded cattle development. The elite Hindu's of Travancore considered cow as a sacred animal and attributed special divinity to it. In early days it was the practice to punish with death the people who killed cows¹⁶. Though such protective laws were not in existence during the beginning of 20th century, the sacredness attached to cow still continued. Even by the beginning of the 20th century the practice of *Dharmapullu* was existed in all the taluks of Travancore. It is a practice by which government provided free grass for stray cattle attributing divinity to cattle.

In Travancore the first cattle statistics were collected in the year 1904-05. According to it Travancore had 4.9 lakhs oxen, one lakh buffaloes, and 1.72 lakh sheep and goats. Besides this cattle stock included a few horses, mares, asses and pigs (Table 1.8). Among the cattle stock, oxen, sheep and goats were the categories of cattle which registered an increase during the first half of the 20th century. In the case of oxen, the increase was about 83 percent and the increase can be partly attributed to import of cattle from the neighbouring districts of Madras presidency. Compared to Bullocks there was a greater increase in the number of cows during the period (Table 1.8). The increasing popularity of motor vehicles and substitution of motor vehicles in the place of bullock carts led to the fall in the number of bullocks during 1930's and 1940's. The rapid increase in the number of sheep can be attributed to the comparative cheapness of this category of cattle to that of oxen and Buffaloes enabling the ordinary people to possess it and its suitability to agro-climatic conditions of Travancore.

5. Agricultural Stock

Traditional type of agricultural implements were largely used in Travancore during the first half of the 20th century. The types of agricultural implements used in different regions were the same with minor differences. For instance, the plough in South Travancore resembled the Tinnevely plough and consisted of two bits of wood. On the other hand in central districts, the shape of the plough was a bit different. Generally wooden ploughs were used for breaking up of soil for paddy cultivation. The two tilts of the native plough were its great draught due to its shape and the necessity for repeated ploughing to obtain a proper tilth. Though certain efforts were made to popularize a more refined type of plough, it was not successful due to the farmers strong preference for the traditional plough. But the available evidences suggested that a few iron ploughs were also used for cultivation in Travancore during 1940's (Table 1.9).

Bullock's carts were the chief transport vehicle used by the people for transporting goods and passengers. The introduction of motor vehicles and its popularity during 1930's and 1940's led to the fall in the number of carts.

From the above review we may draw the following broad conclusions. The geographic features and agro-climatic conditions of Travancore were most suited for the growth of food as well as plantation crops. During the 19th and first half of the 20th century there had been a substantial shift of population from agriculture to non-agricultural occupations. A review of the principal traditional crops shows that except rice, there had been considerable growth in production and area of cultivation of all crops. During the period a number of food as well as plantation crops were successfully introduced in Travancore. The introduction of the plantation crops and their large scale cultivation in hilly areas led to the expansion of road and communication networks, expanded trade and commerce and created favourable conditions for the commercialization of agriculture of Travancore.

Table 1.8
Live Stock in Travancore (in numbers)

Cattle Stock	1905	1911	1921	1931	1935	1947
Bulls	NA	NA	NA	2,717	3,596	NA
Bullocks	267,430	295,855	280,935	287,329	27,025	297,561
Cows	222,582	314,889	311,176	357,779	441,588	321,989
Young Stock	--	195,304	209,786	315,967	355,564	275,900
Total Oxen	490,012	806,048	801,897	963,794	827,773	895,450
Index Number 1905 = 100	(100.00)	(164.50)	(163.65)	(196.69)	(168.93)	(182.74)
Male Buffaloes	64,169	60,627	60,769	57,259	26,192	590,44
Cow Buffaloes	38,848	20,683	19,298	20,711	22,752	28,810
Young Stock	--	12,533	11,439	15,179	11,437	9,532
Total Buffaloes	103,017	93,843	91,506	93,149	50,381	97,386
Index Number 1905 = 100	(100.00)	(97.10)	(88.83)	(90.42)	(58.62)	(94.54)
Sheep and Goats	172,371	205,471	133,215	250,160	NA	358,943
Index Number 1905 = 100	(100.00)	(119.21)	(77.29)	(145.13)	--	(208,24)
Horses	417	NA	NA	NA	NA	133
Mares	218	NA	NA	NA	NA	111
Costs and Fillies	62	NA	NA	NA	NA	89
Asses	1395	NA	NA	NA	NA	1244
Pigs	NA	NA	NA	NA	NA	70212

NA – Not Available, Figures in brackets are Index Numbers

Source: 1) Nagam Aiya, V. The Travancore State Manual, Vol.III, P.23
 2) Velupillai T. K, Travancore State Manual Vol.III PP- 380-381
 3) Statistics of Travancore 1947-48, PP 174-176.

Table 1.9
Agricultural Stock

Item	1904-05	1928-29	1947-48
1 Wooden Plough	N.A.	N.A.	228,213
2 Iron Plough	N.A.	N.A.	1,899
3 Total Number of Ploughs	151,483	224,888	230,112
4 Riding Carts	3,594	4,096	2,119
5 Load carrying carts	10,102	18,478	14,024
Total Number of Carts	136,96	22,574	16,143

SECTION II

Factors Contributed to Agricultural Change

1. Colonial Influence on Travancore

Exploitation of agricultural resources and maintaining their superior authority over Travancore were the chief motives of the colonial power in Travancore. But their superintendence of Travancore administration had resulted in introducing a number of administrative reforms, brought many British ideas and practices into Travancore administration and led to the arrival of a large number of British people belonged to various walks of life such as bureaucrats, engineers, planters, businessmen and missionaries. As a result of the Supreme control over the entire administration, they were able to favour the European planters and industrialists, thereby contributing to the growth of industries and expansion of plantation. Though most of the measures of the colonial power were not intended for promotion of agriculture, it expedited the process of agricultural change.

The treaty of Travancore with English East India Company in 1805, a modified version of the earlier treaty of 1795, made Travancore a subsidiary ally of British and gave authority to British to interfere in the internal affairs of Travancore. Since then, British began to interfere in all affairs of Travancore and British clearance was even necessary to name the successor of the rulers, appointment of a Dewan or implement any

major administrative or policy change. In 1811, when the question of succession arise, the British named Gawri Lakshmi Bai as the ruler and since then British assumed the authority to determine the succession of rulers of Travancore¹⁷. The succession of Uthram Thirunal Marthanda Varma in 1847, was delayed two months because of the delay in getting clearance from British¹⁸. The company had a representative, Resident, who was stationed at Travancore to superintend the administration of Travancore. The resident exercised absolute control over the administration of Travancore since his concurrence was required for almost everything. During the tenure of Cullen as Resident (1840-1860) he interfered in all aspects of administration and his instruction extended even to the use of Elephants owned by government¹⁹. The Madras government also felt that Cullen had exercised too great an interference in internal affairs that the Maharaja had become a cipher²⁰.

In the appointment of persons to the post of Dewan, the top post in Travancore administration, the colonial power gave concurrence only to persons of their choice. As a result, most of the Dewans were either belonged to British civil service or persons other than the natives of Travancore. John Munro, who was the British resident of Travancore also held the post of Dewan of Travancore from 1811 to 1814. He was responsible for introducing a number of administrative reforms and British practices into Travancore administration. During his tenure as Dewan, he enjoyed supreme control over the entire administration of Travancore²¹. Besides John Munro, the other two persons belonging to British Civil Service, who held the post of Dewan were M.E. Watts (1925-29) and T. Austin (1932-34).

Because of the colonial influence, the colonial power was able to attract European planters into Travancore leading to the introduction of Coffee, tea and rubber. With a view to encourage European planters, large areas of forest lands were given to European planters as grants for starting coffee cultivation. And the early attempts to cultivate coffee, tea and rubber on large scale were made mainly by Europeans. During 1860's and 1870's considerable number of European planters came to Travancore to start plantations in hilly region of Travancore²². These new plantation crops introduced in Travancore

were became the important commercial crops, and major sources of export earners of Travancore in the later years.

The colonial dominance was largely responsible for undertaking a massive works programme in road construction, irrigation, in-land water ways, communications and introduction of railways thus helping the agricultural development. The traditional bound, conservative rulers of Travancore, having no interest in constructing roads or abolishing civil disabilities, agreed to many reforms simply because of the pressure from colonial government and their eagerness to please the colonial power. In 1863 with the appointment of William Barton as Chief Engineer, the Public Works Department began to execute a massive works programme in road construction, irrigation, in-land water ways, communications and public buildings. The construction of railways from Tinnevely to Quilon was first proposed by colonial government and constructed at its initiative, though the cost for the same was met by Travancore. Travancore also utilized the services of Europeans for constructions of irrigation dams, ports, water supply, electricity generation etc. And building up of these infrastructures also contributed to the agricultural development.

2. Favourable Land Tenure Policy

The land tenure measures taken by the Travancore during 19th and 20th centuries were helpful to the promotion of agriculture. By the end of 18th century due to the annexation of territories belonging to conquered chieftains, about one half of the total cultivated land came under State ownership and was known as Pandaravaka land²³. In 1812 with the acquisition of landed properties belonging to 378 wealthy temples, at the instance of Dewan John Munro, resulted in the conversion of more than one lakh acres of private lands into Sirkar land, thereby bringing about a little less than two-thirds of the cultivated area under the direct ownership of the State²⁴.

The tenures under which Pandaravaka land were held were grouped as Pattom, Otti, Inam and Viruthi. The rest of the land were held under three categories of Janmom viz. free hold, tax free lands and land paying Rajabhogam. The free hold land was held by members and relatives of royal families and Rajas, the second category belonged to

temples (Devaswams) and Brahmins (Brahmaswam), and the third category belonged to various Christians and others.

Even as early as the beginning of 19th century Travancore took certain measures which promoted an expansion in cultivation and increase in productivity. In 1818, the government issued a royal proclamation with a view to encourage the cultivation of waste lands and making permanent improvements in land by guaranteeing the enjoyment of such land tax-free for the first ten years and imposing only a light tax thereafter, and recognizing claims for cost of improvements on newly reclaimed land²⁵. This measure had created opportunities for those who had sufficient capital for conversion of waste lands into cultivable lands without any restrictions of his caste or creed. The first beneficiaries of this measure was the Syrian Christians who could go in for conversion of waste lands and thus became Sirkar tenants, with the capital they had already accumulated from earlier trading activities. At the later period the Ezhavas also must have followed this way.

Another measure, which had helped agricultural change was the conferment of more rights to the tenants holding Pandaravaka lands. Pattom and Otti were the important tenures under which Pandaravaka lands were held in Travancore. The tenants holding Otti tenure had enjoyed more rights like rights to transfer occupancy rights, compared to tenants holding Pattom tenure. But the holders of pattom lands consisting of half of the cultivated land in the State had no ownership right not had any power to transfer occupancy rights. This was so because of the underlying legal concept that State was the 'Janmi' of this lands. Though State was considered as Janmi, in actual practice the tenants enjoyed much freedom, since State demanded only land-revenue from them. This category of tenants had gradually increased in number with increase in population. Except the power to transfer the right of compensation for improvements, the tenants did not enjoyed any other rights such as proprietary rights or transfer of occupancy rights. This created a stagnant situation in which the land do not have a value beyond the crops it produced. The government also experienced much difficulty in collecting land revenue dues since nobody is willing to purchase this land. In order to solve the stagnant situation, the government issued a pattom proclamation in 1865, which conferred full ownership

rights on tenants subject to the due payment of land revenue and removed all restrictions with respect to transfer of ownership. The proclamation says as follows²⁶:

“The ryots holding these lands may be regarded them fully as private, heritable, saleable and otherwise transferrable property. Accordingly, the sales mortgages etc. of these land will hence forth be valid. The lands may be sold for arrears of tax in executions of decrees of courts and such other legitimate purposes, and may also be accepted as the security by the governments as well as by private individuals.”

As a result of this measure the Pandaravaka lands, which had not have much value except the value of the produce from the land, got a sudden appreciation in value since land became a commodity that can be freely purchased and sold. Cash began to use widely for the transfer of land rights, thereby enhancing the circulation of cash in a hitherto stagnant non-monetised agricultural economy. This had created opportunities for certain communities especially Syrian Christians who had interests in trade and have capital with them to purchase land for cultivation. This step had helped to create a peasant proprietary class who can mortgage, sell or transact land freely thereby creating favourable conditions for the emergence of a land market, which is one of the pre-conditions of commercial or capitalist agriculture. This led to a significant expansion of commercial cultivation in the second half of 19th century, of which the most important examples were Kayal Krishi in Kuttanad and cash crop cultivation in high ranges.

The rest of the land which amounted to one fourth of the cultivated area was under Janmies, which were under three categories of tenure viz. freehold, tax free lands and lands paying Rajabhagam. The position of the tenants of Janmom land were not much different from their counter parts in Malabar. In the case of these tenants also Sirkar took certain measures which ensured their occupancy rights as early as 1830's. In 1829, a regulation was issued directing the High Court not to allow suit of eviction of substantial tenants without prima facie charges against them. As the above regulation was not effective, another proclamation was issued in 1867, for ensuring the security of tenure of kanam tenants with the only obligation of paying rent and other dues to the Janmies. Owing to certain defects in the implementation of the above proclamation, the Janmi Kudiyan Act was passed in 1896, which provided permanent occupancy rights and other

reliefs in the form of fixation of rents and fees for the kanam kudians. During the 20th century the Devaswom Proclamation of 1922 abolished the tenurial distinction between Pandaravaka and Sirkar Devasom vaka tenures, the Janmi Kudiyan Amendment act of 1932 conferred absolute proprietary right on the kudiyan under the obligation of payment of Janmies dues and by the land tax proclamation of 1946 a uniform-rate of tax was introduced. In spite of a number of limitations of the land tenure measures, the measures introduced in Travancore were to a large extent helpful for creating favourable conditions for agricultural change.

3. Taxation of Land

Though attempts were made to survey the land for revenue settlement in 1772, 1803, 1818 and 1837, these surveys did not give any clear picture about the extent of area held by land owners, its exact boundaries or classifications²⁷ of soil. Assessment of revenue was made in a rough way on the basis of the seed required to sow a plot of land with a number of deductions and additions which made the entire process of assessment completely confusing. A systematic survey and settlement was started in 1886 and completed in 1920²⁸.

The system of taxation that followed in the earlier days was to assess the land or fix the full pattom amount as if the property belonged to Sirkar and ascertain the portion earmarked to Sirkar. As certain categories of private Janmom properties were exempted from land tax or levied only a light tax, the full assessment was levied only on Pandarapattom lands, which amounted to half of the total wet land area and a little less of three fourth of the total cultivated dry land. The method by which the assessment rates were fixed for wet lands was as follows: the land were first classified into 13 classes according to differences in fertility and the gross produce of each class were estimated. After deducting the quantity of seed required for cultivation plus an equal amount as cultivation expenses, and keeping one third of the remainder as the cultivators share, the remaining two thirds of net produce were shared in the proportion of sixth-tenth to Sirkar and four-tenths to landlord. But due to the classification adapted in the settlement and estimation of difference in yield in different areas, the assessment was very much higher in southern Travancore (Nanjanad) which accounted for large areas of wet paddy land.

Prior to 1906, the whole tax was calculated in kind in installments. The installments were devised in such a way that the landlords need remit the money tax in the months other than the harvesting season, giving an opportunity to sell his produce at a higher price. Though the rate of tax levied on wetland was high compared to garden lands, the cultivation of paddy was not very much affected due to the practice of leasing vast areas of paddy land to cultivating tenants on Pathivaram or Kattukuttagai.

Pathivaram was usually an oral lease by which a cultivating tenant takes a piece of land for cultivation from the owner or holder of the land, and pays half of the gross produce as the share of the owner. Here the cultivating tenant is entitled half of the gross produce of paddy plus straw as his share and has no obligation to pay tax or any other dues. The land tax is paid by the land lord from his share of the produce. Because of the advantage of getting half of the total produce as the share of the cultivating tenant, this system of oral lease was widely prevailed in Travancore. By the beginning of the 20th century, it was estimated that about nine-tenths of wet lands in Travancore were under this category of lease²⁹. But in Nanjanad, a fertile paddy growing region, another lease known as Kattukuttagai was prevailed, where the cultivating tenant got only a lesser share of the total produce. It was estimated that in Nanjanad, on an acres which grows one kottah of paddy used to fetch to the landlord about 12 to 13 kottah of paddy per annum under this lease³⁰. The lack of employment opportunities outside agriculture might have been the reason which compelled the tenants to get on lease at the exorbitant rates.

We have seen that due to higher rate of tax on wet lands and lower share of produce received by the cultivating tenant, the cultivation in wet lands were not enthusiastically pursued. But the taxation policy pursued by Travancore with respect to crops in garden lands, plantation crops and crops in reclaimed lands was rather encouraging. The earliest tax on garden lands known as Payattupattom, was levied on a piece of land when the land was first brought under cultivation. When the trees planted in the land began to yield, a tree tax was imposed by dropping the earlier tax. The important trees which were taxed were coconut, areca nut, jack, palmyra, tamarind and mango. According to early settlements of 19th century, coconut trees were divided into four classes and assessed at 4, 3, 2.5 and 2 chuckrums respectively³¹ per tree. A tax reform implemented in 1865 by

abolishing numerous petty extra taxes leviable on gardens as well as paddy lands helped to expand cultivation. It is pointed out that as many as 100 of them were abolished³² in 1865. The remaining taxes which are personal or related to professions and falling on persons who paid full assessment were abolished by the beginning of the 20th century.

In the case of land used for cultivation of coffee, tea, rubber and other cash crops liberal tax concessions were given. During 1880's, coffee and tea crops were taxed at a rate of 12 annas per acre. In 1888, cultivation on tea on low elevation lands by the natives were made tax free for first five years and a Payattupattom tax thereafter. In the case of waste lands, tax concessions were given for the first four years. During the 20th century government pursued the same policy of levying a lower rate of tax on plantation crops compared to wet-land crops. Planters who engage in planting of coffee and tea along with other forest trees were levied a lower rate of tax of rupee one per acre. Land given for rubber cultivation were assessed with a tax of six anas per acre for the first year and tax of two thereafter. Similar concessions were given for cultivating plantation crops in waste lands and porampoke lands. Low rates of tax were also levied on Cherikal lands, located in high elevation of northern taluks, and tax exemption was given for the first five years and a tax equivalent to half of the quantity of seed was levied thereafter. As a result of the favourable tax policy, there had been a continuous expansion in the cultivated area in Travancore, during the second half of the 19th century and first half of the 20th century.

4. Encouragement to Plantation Crops

The rapid expansion in the area under plantation crops can be attributed to State's policy of giving active encouragement of planters. To encourage the cultivation of plantation crops, government gave liberal tax concessions, provided forests and waste lands either as grants or at a very low price and constructed more roads connecting hilly plantation regions with towns and trading centres. Besides this, the development of transport facilities like inland water ways and ports also helped to promote the trade of plantations crop products. We have already seen in the previous sections that lower rates of taxes were levied on lands cultivating plantation crops compared to wet lands.

Till the mid of 1850's, government was following a policy which was not helpful for the expansion of plantation crops. Though isolated attempts were made to start coffee plantation in 1830's and 1840's, they had not achieved much success due to failures of early planting and lack of encouragement from the part of government. But since 1860's government began to give free grants of lands for coffee plantations. Hundreds of acres of forest land were given as true grants to Europeans to start coffee plantation during early 1860's. In 1862 the government prepared a set of rules for the grants of forest land, and among others one specific condition laid down was that one fourth of the forest land thus given should be cleared and planted within the first three years³³. The large demand for the forest land for coffee cultivation was met by replacing the system of grant by a system of auction sales in 1865 at a prices of Rupee one per acre. Later in 1874, the price of land was further raised to Rupees ten per acre. In 1879, about 20,292 acres of land were sold exclusively for starting coffee plantations. Vast areas of forest land were given to colonial companies on the basis of agreement between Travancore and Companies. The largest foreign companies were the British Kannan Devan Hill Produce Company and the Anglo-American Direct Tea Trading Company which were registered in 1878 and 1897 respectively. It is pointed out that an area of about 215 square miles had been leased out to Kannan Devan Hill produce Company alone³⁴. These large tracts of land were covered with thick forests and only a small portion was cleared and cultivated with plantation crops.

The demand from the influential European Planters and the colonial interests prompted the government to construct roads on the hilly tracts connecting plantation regions with towns since 1860's. Work on a road from Kottayam to mundakkayam was completed in 1862. A cart road was opened from Nagercoil to the foot of the Ashambu hills, where coffee planting was in progress. Road surveys were conducted and road building subsidies were given to planters. A little less than 50 percent of the money the government received from the sale of land to planters were spent for road building subsidies and road surveys. And by 1872 about 1000 miles of roads were completed construction and open for cart traffic. The road connecting Quilon to Schcottah was completed in 1872.

The expansion of plantation crops created large employment opportunities to unskilled people especially those belonging to low castes and gave incentives to the local people for starting plantations. Though the plantations opened up a lot of employment opportunities in hilly plantations centres, the opportunity were not fully utilized by the agricultural labourers of Travancore. Due to reluctant of abandoning their traditional occupation and birth place, fearing risk involved in the new places, the majority did not utilized this opportunity. And the Tamilians from the neighbouring district of Madras Presidency came in large numbers to work in the newly opened plantations. The new plantations also gave opportunities for natives especially Syrian Christians, who worked as Clerks, Managers, overseas and helpers in the estates of the Europeans to start their own plantations in small scale.

5. Encouragement to Reclamations of Backwaters

As Travancore had extensive backwaters and number of rivers there was ample scope for reclaiming land from backwaters for paddy cultivation. The backwaters had to be reclaimed by constructing enclosing bunds around the cultivation blocks, followed by draining of the enclosed area, leveling the ground, construction of drainage and irrigation channels and also from small bunds inside the block. These operations, in order to be economic had to be done on a large scale, which inturn require large investment. Reclamation of land from Vembanad backwater for rice cultivation had started as early as 1834³⁵. But government gave active encouragement for reclamation only since 1860's. Land tax exemptions were given to the cultivators for the first five years and a very light tax equivalent to half-seed assessment was levied since then. Loans were also given to the cultivators in view of the enormous capital expenditure required for reclaiming the land. During 1880's six reclamation scheme were implemented by the State with the objective of changing the water courses. The reclamation schemes were mostly intended to bring more land under the rice crop and improve the yield of the existing fields by putting up barriers against the entry of brackish water from the lakes and seas and channeling the flow of fresh water from the river system to these fields. The government granted more concessions for the reclamation of land by a Regulation in 1899. And by the beginning of the 20th century about 5,500 acres of land had been reclaimed from the Vembanad lake³⁶.

By the beginning of the 20th century the reclamation activity got further impetus due to increase in price of rice and the availability of credit from local banks, chitty agencies and government. But the reclamation activity was forced to stop due to the intervention of the colonial government. The colonial rulers wanted to stop the reclamations on the ground that it would create damage to Cochin port. But after convincing the colonial rulers about the non-possibility of such a thing Travancore got permission for reclamation in 1912. The reclamation activity was started again and by 1930 about 50,000 acres of backwaters had been reclaimed and converted for punjah cultivation of paddy. The high prices for rice that prevailed since the second world war, the introduction of the mechanical pump and advent of electricity, further gave an additional stimulus for reclamation. And almost the whole area which could be reclaimed and brought under Punjah cultivation had been brought under Punjah by the end of 1940's transferring Kuttanad into one of the principal rice bowls of Travancore.

6. Better Irrigational Facilities

Another factor which contributed to the agricultural development was the State's efforts to provide irrigation facilities from very early times. From very early times Travancore rulers had taken steps to construct dams for irrigation purposes. The first dam having a height of 20 feet was built of massive squared stones across the Paralayar in south Travancore presently in the Kanyakumari district, is said to have constructed about a thousand years back. We do not have reliable information about the ruler who constructed the dam, but it is believed that the dam was constructed by Pandiyan rulers³⁷. A channel was also constructed through solid rock for a distance of about two miles. The success of the Pandiyan dam induced the subsequent generations to construct another dam, Puthen dam about a quarter of a mile lower down the same stream providing irrigation facilities to Eraniel and Kalkulam taluks. This dam is 270 feet long and founded on solid rock at a depth from 6 to 30 feet below the crest. It is believed to have built by around 1750 AD³⁸. Padmanabha Puram Puthenaur, a channel having a distance of 19 miles was also constructed by cutting rocks to the depth of 30 to 50 feet. Even those days Travancore had developed an irrigation engineering technology which was admirable in

many respects. Mr. Hosely, an English Engineer, after seeing the dam and channel observed as follows³⁹.

“I have no hesitation in saying that it has been an unmixed pleasure to me from a professional point of view, to merely follow the lines of original constructors of the Pandiyan Caul and Padmanabhapuram Puthenaur, because the evidence of their skill and almost super human presurance was so marked, and I have in engineering out the works, felt consented and fully satisfied to follow in the foot-steps of those whom I cannot but consider to have been masters in their art”.

During the 19th century also Travancore took steps to expand irrigation works in the taluks of South Travancore. A department was established to execute the irrigation works in 1834. Mr. Husely, was brought to direct the works in 1836. A channel, pandyankal was constructed, enabling an increase in the catchment area from 4 to 40 square miles. Water began to be distributed by 11 anicuts to a length of about 20 miles to 8 major channels having a length of 64 miles. Later in 1882, steps were taken to improve the irrigation system by improving the Pandyan Canal. Works relating to the improvement of Padmanabhapuram Puthenaur, stopping the leakage in the Puthen dam and construction of head work of two main channels were completed in 1885. Steps were also taken to construct a masonry dam, across Kothayar at Panchipara. Though the investigation works of the project was started in 1882, due to the differing opinions of the Engineers, who were consulted on the Project, the final sanction for the work was delayed till 1904. The work of the reservoir of the project was completed in 1907 and provided irrigation to 36,000 acres of wetland and 1800 acres of newly converted dry lands⁴⁰. This project was the biggest irrigation project undertaken by Travancore State.

Besides the above irrigation project, Travancore also made attempts to improve the existing tanks and digging more tanks. Between 1923 and 1926, 48 irrigation tanks were improved and a number of tanks were constructed in different parts of the State. Besides the above mentioned irrigation works, six reclamation schemes were also implemented in 1880's with a view to save large areas of paddy cultivated land from the attack of salt water. During 1920's and 1930's the amount spent on irrigation and reclamation ranged from Rupees one and a half to three lakhs⁴¹.

SECTION III

Obstacles to Agricultural Development

In the earlier section we have examined the encouraging policies and factors which contributed to the agricultural development in Travancore. But the gains from the agricultural development was largely distributed in favour of the upper landed class people and the foreign capitalists. Though the class of people comprising of agricultural labourers, small farmers and landless people got some benefit that was not sufficient to make any significant change in their economic well-being. This can be attributed to the structure of land ownership and the socio-political system that prevailed in Travancore. The hierarchical caste system that prevailed stood as a major obstacle for socio-economic change. In this section we attempt an examination of the above issues.

a. Structure of land ownership

Though the land tenure measures implemented by Travancore were helpful for agricultural development it had not resulted in an equitable distribution of land. Even after the conferment of the ownership rights to the tenants of Pandaravaka land by Pattom Proclamation of 1865, about 25 percent of the cultivated area remained as Janmom lands and actually cultivated mainly by tenants-at-will. The pandaravaka land were largely held by rich tenants who usually sublet it to the tenants-at-will for cultivation. The land tenure measures that implemented during 19th century and the first half of the 20th century completely ignored the interests of the tenants-at-will. By the beginning of the 20th century it was estimated that about nine-tenth of the wet lands in Travancore was actually cultivated by the tenants-at-will who taken land on oral lease, Pathivaram⁴². The forest and waste land which were converted into plantations were mainly in the hands of Europeans Capitalists. As reclamation of land was an expensive activity only rich people can enter into that field. Thus except this upper and a sizeable number of middle class people, the vast majority were either tenants-at-will, agricultural labourers or small farmers. According to 1931 census out of the total agricultural holding 38 percent had a size of holding below one acre⁴³. Another 24 percent of the holding had an average size ranging from one to two acres. Out of the total holdings it was found that only 13% of

the holding had a size of above five acres (Table 1.10). The communities which possessed a larger size of holding of land were Brahmins followed by Syrian Christians, Nayar, Muslim and Ezhava. A survey conducted by the Banking Enquiry Committee in two villages in Travancore also revealed that the farmers having a size of holding below one acre accounted 71 percent and 44 percent respectively in the two villages⁴⁴. Thus the ineffectiveness of the land tenure measures to provide an economic size of holding to the vast majority of the agricultural households was the root cause for the heavy indebtedness, unemployment and poverty prevailed widely in Travancore.

The Travancore farmers forced to seek credit mainly to meet their cultivation, subsistence and social expenses due to the small size of his holdings. Loans were obtained from money lenders, rich farmers, co-operatives, banks and chitty companies. Based on registration statistics it was estimated that during the first three decades of the 20th century the total agricultural debt had increased from Rs. 2.99 crores to Rs. 7.85 crores⁴⁵. A good part of land sales were executed for clearing debts. Besides this, loans were raised from money lenders and other financial institutions. In Kuttanad region there existed a practice of giving loans in kind i.e. paddy. In November, a farmer borrows paddy as loan on the security of the coming crop and he has to pay back the principal and interest after the harvest. The interest charged for this kind loan was worked out as about 60 percent per year. It was pointed out that in Kuttanad, except a few rich cultivators having large farms, the rest of them could not able to cultivate their land without borrowing paddy during the first decade of the 20th century⁴⁶. During the depression period the Banking Enquiry Committee had conducted a survey in 13 villages to find out the causes of indebtedness. It was found that 68.8 percent of the families were in debt and the debt varies universally to the size of holdings. To quote the committee⁴⁷, “the smallness of holdings, which is as well the result of the recent laws of inheritance as the pressure of population is also the principal cause contributing to the growth of indebtedness”.

The committee found that debt was incurred for clearing the earlier debts and for social purposes like marriage and other ceremonies. The average debt per acre was found as Rs. 145. In the case of borrowing from co-operatives, it was found that 32% of the

borrowed money was spent for clearing prior debts. Of the loans raised only a small percentage was used for agricultural purposes. Because of the very low income of the farmers, the credit was also utilized for meeting their subsistence expenses. The agricultural debt redemption committee which subsequently studied the issue also endorsed the findings of the Travancore Banking Enquiry Committee.

Table 1.10
Size of Holdings (1921 Census)

Size of holdings	Percentage of the number in each group to the total number of holdings	Size of holdings	Percentage of the number in each group to the total number of holdings
Below 20 cents	5.94	5 – 6 acres	3.13
20 – 40 cents	6.67	6 – 7 acres	2.09
40 – 60 cents	10.67	7 – 8 acres	1.30
60 – 80 cents	7.76	8 – 9 acres	1.11
80 – 100 cents	4.08	9 – 10 acres	0.64
0 – 1 Acre	38.12	0 – 10 acres	95.53
1 – 2 Ares	24.32	--	--
2 – 3 Ares	12.70	10 – 100 acres	4.40
3 – 4 Ares	7.34	--	--
4 – 5 Ares	4.78	100 acres & above	0.07
0 – 5 Ares	87.26	--	--

Source: Velupillai T. K., Travancore State Manual Vol. III, P. 288

The Committee, which collected information from 35,756 debtors, found that the class of cultivators who had a land holding below 2 acre in the case of wet land and 3 acre in the case of garden and wet lands, constituted the majority of the debtors in Travancore⁴⁸. It is evident from the above discussion that the basic reason for the heavy indebtedness prevailed among the farmers in Travancore was the small size of holdings.

The small size of holding and the lack of employment opportunities in agriculture forced a sizeable section of the farmers to migrate to Malabar. The migration of farmers to Malabar actually started during the depression period. It is estimated that about 70,000 people might had been migrated from Travancore to Malabar during the period between

1930-50⁴⁹. An examination of the composition of migrant farmers revealed that majority of them were small farmers.

Due to the concentration of land ownership in the hands of a land lords and colonial planters, the small size of the land holding of the vast majority of farmers and the nature of land tenure measures implemented there existed a large army of tenants-at-will and agricultural labourers. During the early parts of the 19th century a good part of the agricultural work was carried out with the help of agrestic slaves like pulayar, pariahs and Kuravan. Pulayar were the largest section lived in the areas from north of Trivandrum and Pariahs in the southern parts of Trivandrum. During the 19th century, government also owned slaves for leasing to private landlords for cultivation purposes. During the early 1850's, slaves numbering about 15,000 were owned by the government for giving on lease to private land holders⁵⁰.

The land holders had to pay an amount to government and had the obligation to find the slaves. Disobedient slaves were beaten and murdered with impunity and all slaves could be legally sold. Though the efforts of the missionaries compelled the government to abolish slavery in 1855, the conditions of the slave people remained without much change. The agricultural slaves, agricultural labourers and the tenants-at-will were usually worked the entire day time from morning till evening to earn their bread. In a backward agricultural economy without much employment opportunities outside the agricultural sector, the rate of wages, in most cases, wages in kind paid were very low till 1860's. But the starting of a number of new plantations, resulting in expansion in cultivation and the massive public works programme launched since 1860's gradually created more demand for unskilled agricultural labour and thereby a rise in wage rates. By 1880's the daily wage paid to agricultural labourers had considerably increased, even though there was considerable variations in wage rates in different regions. Though there had been a considerable increase in employment opportunities outside agriculture during the last decades of 19th century, agricultural labourers accounted 61 percent of the actual workers in 1901⁵¹. During the first half of the 20th century we can notice a shift of labour force from agricultural sector to non-agricultural sectors due to more employment opportunities generated in industry, transport, commerce, trade and social services.

b. Caste System

The hierarchical caste system and the caste practices that existed in Travancore stood as a major obstacle for social and economic change. In the caste hierarchy, Brahmins stood at the top followed by Nairs, Syrian Christian, Muslims, Ezhavas, Shannars and the slave castes such as Pulayans, Parayan, Kuravas etc. at the bottom. By the middle of the 19th century out of the total population, Nairs and their sub groups accounted 30%, Syrian Christians 12%, Muslims 5%, Ezhavas 15%, Shannars 6% and the slave castes 30%. Though Brahmins were the most dominant caste, they accounted not even one percent of the total population (about 2000 persons). Because of the practice of caste pollution, persons belonging to inferior and slave castes were kept away from the presents of upper caste people. Even in public roads, the slave caste people were forced to remain at a distance from a Brahmin. Low caste people were not given free access to courts, markets and public offices. Caste prejudices stands in the way of admitting low caste children in the government schools. Caste restrictions were also imposed on starting shops in the same place where shops were run by upper caste people. It is permitted out that Nairs and upper caste people used to purchase goods from Syrian Christian traders because they were considered having an equal status with them. The caste system denied opportunities for the lower and slave caste people to move to new places, new occupation, attain literacy and engage in non-traditional activities, thereby improving their economic condition. Thus the caste system prevented labour and occupational mobility, discouraged innovative and enterprising activities connected with agriculture, industry, trade and commerce. The ignorance of the slave caste people were also exploited by the upper caste people. Due to the ignorance of lower caste people to secure registration rights for the waste and forest land reclaimed by them, the higher caste landlords were able to manipulate the land records in favour of them. Considerable areas of waste land thus cleared by low caste people were thus passed into the hands of upper class landlords.

The Brahmins considered themselves as custodian of temples and viewed agricultural work as a disgraceful occupation. The Nairs, who considered themselves as warriors and administrators, imitating the Brahmins also viewed agricultural works as a degraded work meant for lower castes and slave caste people. Nairs and Brahmins, who owned a sizeable

portion of cultivable land leased out the land to tenants belonging to other castes. Thus the land ownership was vested in a class of landlords who had no interest in cultivation and had no active participation in the cultivation.

The Matrilineal system of inheritance (Marumakathayam) followed by Nairs, the dominant land owning caste, also stood as a serious obstacle to agricultural development. The matrilineal joint family known as Taraward, consisted of all descendants of a common ascent ancestors in female line only. The family property is usually managed by the eldest male member of the Taraward. Gross mismanagement of the Taraward property was a common thing and there were constant feuds between members of the Taraward approaching to civil courts. The younger and more enterprising were not given opportunities to the management of Taraward landed property. The system also prevented transfer of the property from Taraward to its members enabling them to use the land more intensively. Till the legislation of 1924 legalising the claims of an adult member of a Taraward for the share of his properties, the Taraward remained as undivided property. Thus the system prevented transfer of ownership, discouraged intensive as well as extensive cultivation, prevented the younger people from the participation of cultivation activities and stood as a major obstacle to agricultural development.

Conclusion

By the beginning of 19th century, Travancore was a backward economy having the features of a traditional agricultural economy. But, during a period of one and a half century Travancore witnessed rapid change in agriculture. Among the numerous crops cultivated in Travancore, the important ones were rice, coconut, tapioca, pepper, rubber, tea, ginger and coffee. Among these crops tapioca, coffee, tea and rubber were not native crops, but were introduced to Travancore. Available evidences suggested that Travancore exported rice till about 1840's. But the import of rice during 1850s, to meet the growing domestic demand of rice from other British territories had resulted in the steep fall in price of rice and discouraged paddy cultivation and promoted commercial crops. Coconut was the second major crop which accounted for more than 50 percent of the total export earnings of Travancore between 1870 and 1910. Pepper was another major crop. The earliest relations between the British and the Travancore State were established on the

basis of a pepper contract. Coffee, tea and rubber were introduced in Travancore by colonial planters.

Colonial exploitation was the chief motive of the British colonial power in Travancore. But their superintendence of Travancore administration had resulted in large scale exploitation of state's resources. Vast areas of forest land were given to colonial companies on the basis of agreement between Travancore and the Companies. The largest foreign company was the British Kannan Devan Hill Produce Company and an area of about 215 square miles had been leased out to the Company. Besides providing land for coffee plantation through grants and sale of forest and waste lands, the government also followed a policy of encouraging coffee cultivation by constructing roads in coffee planting regions and granting road building subsidies to planters. Though tea had been cultivating in northern India, it was introduced in Travancore, only during 1860's. By the first decade of the 20th century, European planters started planting rubber in a few estates. The introduction of the plantation crops and their large scale cultivation in hilly areas led to the expansion of road and communication networks, expanded trade and commerce and created favourable conditions for the commercialization of agriculture of Travancore.

Due to the annexation of land belonged to conquered chieftans and acquisitions of landed property of 378 wealthy temples, nearly two thirds of the cultivated area were under the direct ownership of the state in 1812. But the Travancore government has not followed a policy to distribute the land to the peasants. The land tenure measures that implemented during 19th century and the first half of the 20th century completely ignored the interests of the tenants-at-will. By the beginning of the 20th century it was estimated that about nine-tenth of the wet lands in Travancore was actually cultivated by the tenants-at-will who had taken land on oral lease, Pathivaram. According to 1931 census out of the total agricultural holdings, 38 percent had a size of holding below one acre. While thousands of acres of land were given to colonial planters at free of cost, the native farmers were not given a small piece of land.

During the early parts of the 19th century a good part of the agricultural work was carried out with the help of agrestic slaves like pulayar, pariahs and Kuravan. Government also owned slaves for leasing to private landlords for cultivation purposes.

During the early 1850's, slaves numbering about 15,000 were owned by the government for giving on lease to private land holders. The land holders had to pay an amount to government and had the obligation to find the slaves. Disobedient slaves were beaten and murdered with impunity and all slaves could be legally sold. Though the efforts of the missionaries compelled the government to abolish slavery in 1855, the conditions of the slave people remained without much change.

The hierarchical caste system and the caste practices that existed in Travancore stood as a major obstacle for social and economic change. Low caste people were not given free access to courts, markets and public offices. Caste prejudices stands in the way of admitting low caste children in the government schools. The caste system denied opportunities for the lower and slave caste people to move to new places, new occupations, attain literacy and engage in non-traditional activities, thereby improving their economic condition. The matrilineal system of inheritance (Marumakathayam) followed by Nairs, the dominant land owning caste, also stood as an obstacle to agricultural development. Thus the caste system prevented labour and occupational mobility, discouraged innovative and enterprising activities connected with agriculture, industry, trade and commerce.

NOTES

- 1) The only notable study is Jeffrey's study, which examines the causes of the decline of Nair dominance in Travancore during the second half of 19th century.

See: Robin Jeffrey, 1976. The Decline of Nair Dominance, Vikas Publishing House, New Delhi.

- 2) The areas had been altered from 7625 square miles in 1931 to

Source: Census of India, 1941, Vol. 25, Travancore P.17.

- 3) Nagam Aiya V, 1906, The Travancore State Manual, Vol. II, Travancore Government Press, Trivandrum. P. 1 and 2.

4) Samuel Matur had pointed out that Travancore exported about 281,000 Candies (654 lbs a candy) of rice in 1843, while the imports were only a small quantity.

Source: Samuel Matur, 1883, Native Life in Travancore, W.H. Allen & Co., London.

5) Samuel Matur, 1883, Native Life in Travancore, op-cit, P.219.

6) Ibid, P. 219

7) Ibid, P. 221

8) Ibid, P. 225

9) Robin Jeffrey, 1976, The Decline of Nair Dominance, Vikas Publishing House, P. 98.

10) Samuel Matur, 1883, Native Life in Travancore, op-cit, P. 225

11) Ibid, P. 225

12) Nagam Aiya V, 1906, The Travancore State Manual, Vol. III, P. 81.

13) Government of Travancore, 1930, Banking Enquiry Committee Report, Vol. I, P.P 263-265.

14) Government of Travancore, Travancore Economic Depression Enquiry Committee Reports 1931, P.21.

15) Velupillai T. K, Travancore State Manual Vol. III, P. 380.

16) Nagam Aiya V, 1906, The Travancore State Manual, Vol. III, P.16.

17) Velupillai T. K, Travancore State Manual Vol. II, P. 502.

18) Ibid, P.564.

19) Robin Jeffrey, op-cit, P.43.

20) Ibid, P. 66.

21) Gauri Lakshmi Bai in her installation speech said as follows:

“ Being a young female quite unprepared and unqualified for such a high and responsible position, she should not do better than place herself under the guidance and support of the Honourable East India Company, whose bosom had been an asylum for the protection of an infant like Travancore to you colonel (to John Munro). I entrust everything connected with my country”.

Source: Velupillai T. K, Travancore State Manual Vol. II, P. 225.

22) Samuel Matur, op-cit, P.225.

23) Varghese T. C., 1970, Agrarian change and Economic Consequences: Land Tenures in Kerala 1850-1960, Allied Publishers, Bombay., P.30.

24) Ibid, P. 31.

25) Royal Proclamation of 993 ME (AD 1818) cited in Travancore Land Revenue Manual, 1915, Vol. IV, P. 229.

26) Notification of Proclamation on 2nd June 1865 cited in Travancore Land Revenue Manual, 1915, Vol. IV, P. 229.

27) Nagam Aiya V, 1906, The Travancore State Manual, Vol. III, P. 343.

28) Velupillai T. K, Travancore State Manual Vol. III, P. 228.

29) Nagam Aiya V, 1906, The Travancore State Manual, Vol. III, P. 150.

30) Ibid, P. 151.

31) One British Rupee was equivalent to 28 chuckrams and 8 cash of Travancore currency. For details of Travancore currency see, Nagam Aiya V, 1906, The Travancore State Manual, Vol. III, P. 216.

32) Velupillai T. K, Travancore State Manual Vol. III, P. 240.

33) Samuel Matur, op-cit, P. 229.

34) Varghese T. C., op-cit, P. 117.

- 35) Velupillai T. K, Travancore State Manual Vol. III, P. 312.
- 36) Pillai V. R. and Panikar P.G.K, 1965, Land Reclamation in Kerala, Asia Publishing House, Bombay.
- 37) Velupillai T. K, Travancore State Manual Vol. III, op-cit, P. 414.
- 38) Nagam Aiya V, The Travancore State Manual, Vol. III, P. 102
- 39) Ibid, P. 102.
- 40) Velupillai T. K, The Travancore State Manual Vol. III, P. 420.
- 41) Ibid, P. 428.
- 42) Nagam Aiya V, 1906, The Travancore State Manual, Vol. III, P. 150
- 43) Census of India 1931, Vol. 28, Travancore, Part I, p. 490.
- 44) Government of Travancore, 1930, Banking Enquiry Committee Report, Vol. I, P. 15
- 45) Ibid, P. 38
- 46) Nagam Aiya V, The Travancore State Manual, Vol. III, P. 184
- 47) Government of Travancore, 1930, Banking Enquiry Committee Report, Vol. I, P. 40.
- 48) Government of Travancore, 1935, Report of the Agricultural Department Redemption Committee, P. 142.
- 49) Michael Tharakan P. K., Dimensions and Characteristics of the Migration of Farmers from Travancore to Malabar 1930-1950, Journal of Kerala Studies, Vol. V, Part II, June 1978.
- 50) Robin Jeffrey, op-cit, P. 24.
- 51) Census of India, 1901, Vol. 26, Travancore, PP. 414-420.

CHAPTER 2

INDUSTRIAL CHANGE

By the beginning of 19th century, Travancore was basically an agricultural economy producing agricultural products and raw materials. Weaving, spinning, ivory works, coir yarn manufacture, extraction of oil, smithy, pottery, wood carving, preparation of coconut jaggery, bell metal works were the important traditional village industries that existed. Hand spinning was the method used for spinning cotton and the caste of people, who were engaged in it were Chetties, Izhavas, Shannans and Chilians¹. The earliest method prevailed in Travancore for coir manufacture was hand spinning. The spinning wheel was introduced only since the arrival of Europeans. The Portuguese, the Dutch and the English who came in close contact with the people of coastal areas like Fort Cochin and Arjengo were said to have introduced the spinning wheel in this industry². The extraction of coconut oil was one of the earliest industries of the State and Country ghani locally known as Chakku was used for the purpose. The ghani consists of a huge granite mortar and a pestle of hardwood. Bullocks are often used for operating the ghani. Ivory carving was one of the major industrial arts that flourished in Trivandrum region from very early times. During 1870's government even started a department for dealing the matters connected with it. Besides ivory, wood carving, especially carving in teak wood also existed in Travancore.

In a hierarchical caste society where everything was determined by caste rules and traditions, each category of industrial work was assigned to each caste. In a society where the upper caste felt that it was below their status to engage in these so called petty occupations, the industrial work were largely done by lowest caste, who often were the poorest people in society. Their poverty and their inability to mobilise capital stood as major obstacle for improving the technology or method of production.

The industrial sector remained stagnant with the traditional village industries and industrial arts dominating the scene till the middle of the 19th century. But since 1850's

there was a gradual change in the industrial scene following the starting of a few factory type industrial units by European Capitalists. As Travancore was under the overall supervision of British government, the political climate here was also favourable for foreign capitalists to make investments here.

James Darrah, an American was the first one to start a large coir factory for manufacturing coir mats and mattings in Alleppey town in 1859³. Following the success of this factory, several European firms were started in and around Alleppey town for manufacture of coir mats and mattings. Coir industry began to locate in Alleppey town due to favourable factors such as inland water transport facilities existed in Alleppey, proximity to Alleppey and Cochin ports, easy availability of coir yarn and fibre and availability of cheap labour. The localization of coir mats and mattings industry encouraged migration of large number of workers from surrounding places to Alleppey town, which was thinly populated during 1860's. The volume of migration was so large that by 1900 AD, about two thirds of the employees were immigrants⁴. The demand for the coir products in European market also led to the establishment of coir mats and mattings factories in England as well. During 1880's a few coir mats and mattings factories in England were started as well. During 1880's a few coir mats and mattings factories were started in London and Lancaster and production was carried out with the imported coir yarn and fibre from Travancore.

The policy of giving active encouragement to plantation of coffee and tea during 1860's also led to the establishment of coffee and tea processing industries in the later decades. A large volume of foreign investment had taken place in plantations of coffee followed by tea⁵. A number of plantations were started by Europeans in Kannan Devan hill, Peermade hill, Minachal, Changanassery, Schencottah, Ponmudi and Ashambu. Following this a few factories were started in Devikulam and Peermade to process coffee and tea. European technology was introduced in the processing of coffee and tea. The Kanan Devan hills produce company, the largest plantation company owned by European planters was the first to use hydro-electric power for running their factories in 1906⁶. These companies had started western type of factories to process coffee and tea.

The favourable industrial climate prevailed since 1860's attracted colonial capitalists in other industries as well. Cameron, an Englishman, was the first to start a tile factory at Quilon in 1880⁷. Following this a few tiles factories were also started by foreign as well as native capitalists during the first two decades of the 20th century in and around Quilon town.

Among the domestic industries, extraction of coconut oil witnessed a boom during the second half of 19th century. The coconut oil in Travancore was considered superior in quality compared to the oil produced elsewhere. A large number of Ghannies engaged in oil extraction throughout Travancore and about 16,000 persons were engaged in the industry in 1901⁸. The steam mills to extract oil was introduced only around 1900 AD with the starting of three mills at Alleppey⁹.

Though the inflow of European capital into Travancore since the second half of 19th century had helped to start a process of industrialization, the imposition of colonial trade policies of Travancore and starting of spinning mill had resulted in the destruction of cottage handloom weaving and spinning industry that thrived in different parts of Travancore. Prior to 1865, almost the entire domestic requirement of clothing was met by the handloom industry that thrived in different parts of Travancore. But the commercial treaty between Travancore and colonial government, which come into effect from 1865¹⁰, removed the tariff restrictions and resulted in large scale dumping of mill made cotton goods into Travancore and the domestic market began to flood with the imported cheap cotton thread and cloth. The domestic cottage industry with its traditional methods of production and inferior products found it unable to compete with colonial products which were cheaper and superior. During this period, a cotton thread mill, Dharrah Spinning Mill, was established at Quilon in 1884, with imported machinery. The large scale production of thread from the mill also worsened the already critical indigenous spinning industry. The cumulative result was that the major part of the domestic spinning industry was wiped out from the industrial scene.

Import of mill made cloth also destroyed the cottage handloom weaving industry which provided the largest employment in the industrial sector. A large number of handloom units were either forced to stop their production due to lack of demand for their

products or switched to the production of inferior and coarse quality of clothing used as waist and head clothing. The volume of imported cotton goods was so large that it roughly accounted about 18% of the total imports of Travancore during the year 1894-1895. The 1901 census gives a rough idea about the fall in the employment of the persons engaged in cotton weaving, spinning and trade. The total number of persons subsisting by occupations in connection with cotton fell from 36,692 in 1891 to 28,806 in 1901¹¹. In the case of persons engaged in weaving the fall in the number of persons were about 8,000 during the ten year period¹².

The other important traditional industries that existed during the second half of 19th century were carving in stone, ivory carving, lace work, fibre making, extraction of oil, gold and silver metal work, brass, copper and bell metal work, making of iron implements and household articles, carpentry, building of canoes, country boats, pottery, brick work, toddy drawing, sugar and jaggary manufacture. Of this, pottery was a major cottage industry existed in Travancore, and the entire domestic requirement was met from domestic production.

Industrial Change during 20th century

The industrial growth which started since the second half of the 19th century attained a further momentum during the first half of the 20th century except the depression period. In 1901, the industrial sector supported about 5.19 lakh of people. During the subsequent three censuses there had been an increase in the total number of people supported by industries (Table 2.1). There had been a fall in the number of industrial workers per 10,000 aggregate population in 1931 due to depression, but the position had improved in 1941. The census also shows that industrial sector provided the second largest employment, first being agricultural sector. We may classify the trend in the growth of industries in Travancore during the first half of the 20th century into three phases viz. (1) the pre-depression phase (2) the depression phase and (3) Revival phase of the post-depression period.

During the pre-depression period, though the government followed a policy of encouraging industrial growth, many infrastructural bottlenecks stood in the way of

industrialization. An industrial survey conducted in 1919 found that lack of capital, poor and inadequate roads, absence of electricity, lack of suitable industrial credit institutions, aversion towards industrial investment, strong preference for investment in land, and the possibilities of getting a high rate of interest through money lending were the important bottlenecks for industrialization¹³. It was pointed out that due to lack of roads and to the poor road conditions, about 80 to 90 percent of the produce of the State were carried by headloads for miles. Due to the very strong preference for land, people generally invested their surplus money mainly on land. The failure of a number of industrial enterprises started by native, who were totally unfamiliar to industrial activities also discouraged the starting of new industrial units. Lack of electricity was cited as another major obstacle to industrial growth. But inspite of the unfavourable factors, Travancore achieved some progress in industrialization during the pre-depression period. Factory type of industrial units began to grow in industries such as tea, oil extraction, coir, tiles, printing, weaving and spinning during this period. By 1911, tea processing had the largest number of factories followed by oil extraction, coir, tiles and printing presses (Table 2.2).

Table 2.1
Population Supported by Industries in Travancore

year	Population supported	Percentage to total population
1901	519,325	17.9
1911	585,410	17.1
1921	720,837	17.9
1931	771,312	15.1

Source: Velupillai T. K. Travancore State Manual, Vol. III P.41.

The average number of workers in these factories varied between 29 and 362. Coir mats and mattings provided the largest employment under the factories sector. The number of factories registered a steady rise upto 1929. Between 1911 and 1929, the growth in the number of factories was about 100 percent (Table 2.2). Introduction of oil, steam, gas and electric engines for running the factories were another technological change which took place. Manually run factories were the only kind of factories that existed in Travancore prior to the introduction of engines. By 1929, majority of the factories began to use either oil, steam, gas or electric engines (Table 2.3). The shift towards the adoption of western

technology had increased production and had a demonstration effect on the local entrepreneurs, who were eager to adopt new technology. Finding the advantages and importance of electricity, the government also felt the need for generating electricity for speeding up the process of industrialization during the decade 1920's. Consequently exploration was made to identify a hydro-electric project, and work on Pallivasal hydro-electric project was started in 1933.

Table 2.2
Factories in Travancore

Name of industry	In 1911		In 1928-1929	
	Number of Factories	Total workers	Number of Factories	Total workers
Tea	25	1468	63	2,559
Oil mill	12	659	12	95
Coir	8	2898	23	7,195
Tiles	8	1510	34	2,390
Printing	7	523	4	312
Weaving & spinning	4	129	1	3
Extraction of minerals	4	1056	2	349
Rice mill	3	88	3	74
Rubber	2	405	7	126
Paper	1	100	1	44
Soda	Nil	Nil	10	20
Safety matches	Nil	Nil	4	282
Saw mill and furniture	Nil	Nil	1	286
steel works	Nil	Nil	1	199
others	9	2887	Nil	Nil
Total	83	11723	166	13934

Source: (1) Statistics of Travancore 1928-29, p.p. 118, 131

(2) Velu Pillai T. K. Travancore State Manual, Vol. III p.97

The depression (roughly between 1929 and 1936) which had a severe adverse effect on Travancore economy halted the industrialization process. As Travancore economy was closely linked to world markets, the depression had its immediate impact on the economy. The sudden steep fall in the prices of all agricultural products had resulted in an entire breakdown of the economic system. The agriculturist who engaged a brief spell of prosperity during the early 1920's due to price rise found it extremely

difficult to mobilise money. The people began to experience a severe cash scarcity as a result of fall in economic activities. The trade, commerce and banking activities of all kinds came to a standstill. The collapse in agricultural sector had its repercussions in industrial sector also. The depression also shaken the economic stability of many established industrial units, besides discouraging new industrial ventures.

Table 2.3
Factories in Travancore in 1928-29.

Name of Industry	Number of factories	Mannual	Power used					
			Carbonic acid gas	Oil engine	Steam	Gas	Electricity	Others
Soda	10	-	10	-	-	-	-	-
Tiles	34	22	-	2	4	4	-	2
Extraction of mineral	2	-	-	1	-	-	1	-
Tea	63	11	-	11	5	24	12	-
Coir	23	15	-	-	8	-	-	-
Oil mill	12	1	-	1	6	-	-	4
Printing	4	2	-	1	1	-	-	-
Steel works	1	-	-	1	-	-	-	-
Rice mill	3	1	-	1	1	-	-	-
Paper	1	-	-	-	1	-	-	-
Rubber	7	1	-	1	-	3	-	2
Weaving	1	-	-	-	1	-	-	-
Safety matches	4	4	-	-	-	-	-	-
Saw mill furniture	1	-	-	-	-	-	-	-
Total	166	57	10	19	27	32	13	8

Source: Statistics of Travancore 1928-29, p.p. 118-131.

The stagnant situation created as a result of depression, began to make a revival by the end of 1930's. The steps taken by Travancore to construct a hydro electric project at Pallivasal aiming at generating electricity for industrial purposes attracted many

industrial ventures into Travancore. It may be pointed out that most of the industrial units which came into prominence in later years were started during 1940's. With the generation of power from Pallivasal project in 1940, a number of big industrial units like aluminium industries of Travancore, the Travancore plywood industries, Travancore Fertilizers and Chemicals etc. were started and favourable industrial climate was created to develop Alwaye – Kalamassery region as an industrial centre. Besides the factories, a number of other industrial units began to use electrical energy. In 1941, tea inclusive of plantation workers accounted for the largest employment in industrial sector followed by coir, rubber, cotton spinning and weaving. According to 1941 census the total workers engaged in tea and coir were 1.18 lakh and one lakh respectively¹⁴. During 1940's there had been a considerable increase in the number of large factories. By 1947-48 the number of large factories had increased to 216, with a total employment of 64,000 people (Table 2.4). Of the total number of large factories, cashew processing had the largest number followed by coir.

We may examine the growth of coir and cashew industries which provided the major share of employment under large factories.

The coir weaving industry which established in Alleppey town began to spread towards shertalai mainly to take advantage of cheap raw materials and cheap labour during the post first world war period¹⁵. The period witnessed considerable expansion in coir industry and a large number of new coir units were started in the suburbs of Alleppey, Shertalai and Cochin. Till the end of 1940's weaving industry remained as a factory based industry. In 1949-50, about 95 percent of the total exports were manufactured in 88 large factories having total labour force of 18,500¹⁶. But since 1950's the coir weaving industry began to witness a structural change mainly due to the political change (attainment of independence in 1947) and the growth of powerful trade unions among coir workers. While the political change prompted the European capitalist to sell their establishments, the rise in the cost of production arising out of the enhancement of wages and other benefits to coir workers in factories led to the closure of large factory type units and paved the way for the emergence of a large number of small scale weaving units in the subsequent decades.

Table 2.4
Large factories coming under factories act in Travancore (1947-48)

Name of Industry	Number of industrial units	Total workers employed	Average number of workers employed
Coir	29 (x)	7286	251
Saw mill	1	220	220
Tile works	6	1228	204
Cotton spinning and weaving	3	9720	3240
Cashew processing	130	36764	283
Engineering works	2	496	248
Manufacture of tea	7	457	65
Manufacture of Rubber	4	421	105
Oil mills	12	1226	102
Press	2	528	264
Repairs	5	1114	223
Ceramic wares	2	557	278
Fibre	3	1226	408
Others	10	3009	301
	216	64252	

(x) Not covering all the large coir factories.

Source: Travancore statistics 1947-48. ap.cit. pp 177-184

Cashew processing began to start on a commercial basis in Travancore by around 1925 with the export of a few tonnes of cashew Kernel to U.S.A. Within a short span of about ten years, the industry grew rapidly and firmly established as a leading industry, due to growing demand for Cashew Kernel in foreign markets especially in U.S.A. Except during the peak depression years (1929-30 and 1931-32) the export of cashew Kernel registered a steady increase (Table 2.5) showing a steady demand in foreign markets. In the beginning, the cashew industry utilized the raw cashew nut grown domestically, mainly in the erstwhile Malabar district and South Cannara regions. When the demand for Kernel grew, processors began to import raw cashewnuts from the East African Countries. Cashew processing on a commercial scale was reported to have started in 1925 with the setting up a factory by one Mr. Jopseph Periern¹⁷. Following the success of this, another factory was started by W.T. Anderson, an Englishman in Quilon town in 1931 employing about 2,000 workers. Meanwhile a number of small processors also

came into existence as sub-contractors to the factories who processed cashew nut in the workers households. And the industry mainly localized in and around Quilon town. Excepting a brief spell during the second world war period, the industry achieved a steady growth during 1930's and 1940's as evident from the rapid increase in the quantity of cashew kernel exported. By 1947-48, the number of cashew factories had increased to 130 providing employment to about 37,000 workers (Table 2.4).

While there had been a growth in factory type industrial units during the post-depression period, the cottage cotton weaving industry further shown a tendency to decline. This can be attributed to the production and import of large quantities of cheap mill made cloth. The handloom cloth known as "khadar" produced in north India also stood as a major competitor to the handloom cloth produced here.

Table 2.5
Export of Cashew Kernels from Travancore

Year	Quantity (In thousand metric tonnes)	Value (Rs.in million)
1926-27	1.25	0.24
1927-28	2.23	0.30
1928-29	2.86	0.43
1929-30	1.14	0.75
1930-31	1.20	0.77
1931-32	2.15	1.11
1932-33	2.45	1.66
1933-34	3.03	2.49
1934-35	5.40	6.34
1935-36	6.71	7.83
1936-37	10.14	10.62
1937-38	11.36	11.31
1938-39	12.37	12.21
1939-40	11.76	11.91
1940-41	15.47	16.17
1941-42	16.62	19.25
1942-43	5.67	7.81
1943-44	5.38	14.69
1944-45	7.70	33.16
1945-46	14.67	64.14

Source: Cochin chamber of commerce and industry, Annual Reports various issues.

The traditional crude methods of handloom weaving continued to exist without much change. The only improvement that was introduced in weaving was the introduction of shuttle loom. As the weaving failed to give adequate return for their subsistence, people took weaving as a part time occupation, and agriculture remained as the main occupation.

Conclusion

Weaving, spinning, ivory works, coir yarn manufacture, extraction of oil, smithy, pottery, wood carving, preparation of coconut jaggery, bell metal works etc were the important traditional village industries that existed by the beginning of 19th century. The extraction of coconut oil was one of the earliest industries of the State using Country ghani. Ivory carving was another major industrial arts that flourished. In a hierarchical caste society where everything was determined by caste rules and traditions, each category of industrial work was assigned to each caste. The industrial sector remained stagnant with the traditional village industries and industrial arts dominating the scene till the middle of the 19th century.

But since 1850's there was a gradual change in the industrial scene following the starting of a few factory type industrial units by European Capitalists. Factory type coir mats and mattings, industrial units were started by colonial investors. And Alleppy town began to emerge as the centre of coir weaving industry. The localization of coir mats and mattings industry encouraged migration of large number of workers from surrounding places to Alleppy town. The policy of giving active encouragement to plantation crops during 1860's also led to the establishment of coffee and tea processing industries in the later decades. Though the inflow of European capital into Travancore since the second half of 19th century had helped to start a process of industrialization, the imposition of colonial trade policies of Travancore and starting of spinning mills had resulted in the destruction of cottage handloom weaving and spinning industry that thrived in different parts of Travancore. Import of mill made cloth also destroyed the cottage handloom weaving industry which provided the largest employment in the industrial sector.

The industrial growth which started since the second half of the 19th century attained a further momentum during the first half of the 20th century except the

depression period (1929 to 1936). During the pre-depression period, though the government followed a policy of encouraging industrial growth, many infrastructural bottlenecks stood in the way of industrialization. The failure of a number of industrial enterprises started by natives, who were totally unfamiliar to industrial activities also discouraged the starting of new industrial units. Lack of electricity was cited as another major obstacle to industrial growth. However the introduction of oil, steam, gas or electric engines, promoted industrial development. The shift towards the adoption of western technology had increased production and had a demonstration effect on the local entrepreneurs.

The steps taken by Travancore to construct a hydro-electric project at Pallivasal aiming at generation of electricity for industrial purposes attracted many industrial ventures into Travancore. The coir weaving industry which established in Alleppey town began to spread towards Sherthalai mainly to take advantage of cheap raw materials and cheap labour available there during the post first world war period. Cashew processing began to start on a commercial basis in Travancore by around 1925 with the export of a few tonnes of cashew Kernel to U.S.A. Within a short span of about ten years, the industry grew rapidly and firmly established as a leading industry, due to growing demand for Cashew Kernel in foreign markets especially in U.S.A. Though there had been a growth in factory type industrial units during the post-depression period, the cottage cotton weaving industry witnessed a steady decline.

Notes

- 1) Samuel Mateer, Native life in Travancore. op.cit. p.239
- 2) Kerala District Gazetters – Alleppey (Trivandrum, Kerala Gazetters, 1975) p. 219
- 3) Ibid. p. 222
- 4) Unnithan, Bhaskaran K. Coir Industry in India with special reference to marketing and trade (Cochin, coir Board 1970) p.10
- 5) Samuel Mateer, Native life in Travancore , op cit. p. 224

- 6) Velupillai T.K. Travancore State Manual vol. III op.cit p.498.
- 7) Kerala District Gazetteers – Quilon (Trivandrum govt. Press, 1964) p. 323
- 8) Nagan Aiyar. V. Travancore State Manual. Vol. III op. cit p. 295
- 9) Ibid . p. 296.
- 10) Velu pillai T.K Travancore State Mannual. Vol. III. Op. cit. p. 586
- 11) Census of India 1901. Vol. 26, Travancore part I. (Trivandrum 1903) p.402.
- 12) Ibid . p. 403.
- 13) Banker S. G. Report of the Industrial Survey of Travancore (Trivandrum Govt. press. 1919). P.p.16-33.
- 14) Census of India 1941. Vol.25, Travancore, op. cit. p.93.
- 15) Unnithan, Bhaskaran. K. op.cit. p.11
- 16) Thomas Isac T. M. “Class struggle and Structural Changes, coir mat and matting industry in Kerala 1950- 80” Economic and political weekly, vol. 17, No.31 July 31, 1982. P. P.E.14.
- 17) Kanan K. P. “Evolution of Unionisation and changes in labour process under lower forms of capitalist production – A study of the cashew industry in Kerala” (Mimeo) (C.D.S working paper No. 128.)

CHAPTER 3

TRANSPORT AND POWER SECTORS

PART 1

Transport Sector

(1) Inland Water Transport.

Travancore was fortunate to have an extensive backwater network connecting the country from one end to another. The backwaters or Kayals are inlets from the sea which run in a direction parallel to the coast. Prior to development of road transport, the major part of the traffic was carried either through the inland water ways or through sea.

The earliest attempt to construct navigable canals was made during the period of Col. Munro as Dewan of Travancore. The canals to connect Trivandrum to the backwater of Kadinamkulam and the other to connect Quilon and Paravur was completed in 1828 A D¹. These two canals had a cost of Rs. 4,000, but the Varkala Cliffs stood as a barrier against direct communication between Trivandrum to Quilon. This was removed by the construction of two tunnels in 1880 at a huge cost of Rs. 17,000. With the completion of this tunnel works direct water communication to Quilon was possible resulting in the growth of traffic movements towards Quilon and Alleppey ports. It was also possible to have an uninterrupted water communication from Trivandrum to Trichur for a distance of 191 miles.

Besides this, efforts were also made to extent the inland water communication network from Trivandrum to Cape comerin. The work of the canal was started in 1860 and a first section having a distance of ten miles between poovar and Thengapattanam was completed in 1864. But due to the enormous expenditure needed to remove a series of rocky cliffs compelled the Government to abandon the further works of the canal scheme. Though no further attempts were made to construct major canals, steps were

made to maintain the existing canals and other navigable routes. And by 1938 Travancore had about 37 canals having a total length of 471.4 miles.

(2) Ports

Travancore had a long coastline stretching from Cape Comerin to Paravoor except the sea coast in Cochin and British Cochin territories. Though Travancore had 18 ports², the four important ports were Alleppey, Quilon, Trivandrum and Culachal. The other ports can be put in the category of minor or very small ports. As early as 1760's attempt were made by Travancore Government to expand port facilities at Alleppey in the north and Vizhinjam in the south³. At Vizhinjam, warehouse was built to afford shipping facilities. Three ships were also built by the government for transporting goods in the Indian ports particularly with Bombay and Calcutta.

(a) Alleppey. Alleppey port was one of the major ports of Travancore having the advantage of smooth anchorage facilities capable of sheltering ships of various sizes. The mud bank of the coast renders the sea smooth practically throughout the year. As early as 1862, a light house and a pier was constructed to ensure safe passage of ships. The original wooden pier was damaged by a storm in 1876 and again destroyed by a cyclone in 1879. Following this an iron screw pile pier was built in 1881. Later a light tram way service was also started to transport goods from the port. The important products exported from the port included coir yarn, coir mats and mattings, coir fibre, tea, coconut oil, rubber, pepper, copra, oil cake, ginger, prawns etc. The commodities imported included rice, piece goods, machinery, hardware, cement, metals and other European manufactured goods. Though the port faced competition from the Cochin port, the port remained as a busy port till the construction of the modern port at Cochin in 1930. Emergence of the Cochin port as a major port with the modern port facilities, decline of the importance of inland water transport and the development of road transport were the factors that led to the decline of Alleppey port in the subsequent decades.

(b) Quilon. From very early times Quilon was very important port in Malabar coast trading with China and Arabia. The Portuguese who came here established a factory and a port in 1503 was later captured by the Dutch after 150 years. Till 1829 Quilon was the

principal port town of Travancore. As early as 1879 a survey of the road stretch was undertaken to find out the safety of the port. It was found that Quilon was a safe port and can accommodate all vessels. Later in 1932 another survey was conducted to get accurate information about the safe anchorage of steamers at this port. The port is situated about forty miles north of Trivandrum. Usually steamers anchor about half a mile to one mile off the shore.

(c) Trivandrum. The port is located at Valiyathura about two miles west of the Trivandrum town. It is an intermediate port meant for coastal as well as foreign steamers. The pier for landing and shipping of cargo is 750 feet in length and is fitted with two cranes. The port had also a few godowns for the storage of goods.

(e) Culachal: This is a port known for the safe harbourage from very early times. There is a group of outlying rocks in front of the port which forms a partial break water facilitating safe anchorage. The Danes had once established a factory here with a commercial resident. The port was generally used by coastal steamers and occasionally by foreign steamers. Goods such as monazite, illminite, zircon, palmara fibre, coffee etc. were exported from the port.

(3) Road Transport.

Due to lack of roads and the existence of a long distance natural water communication network, much of the transportation of goods were carried through inland water ways till the second half of the 19th century. Till the unification of the small territories into unified Travancore by around the middle of 18th century, the political climate of the region was not conducive for road development as numerous principalities were constantly fighting each other. The first attempt to construct roads was made under the rule of Marthanda Varma in 1750-51. During those days, cart traffic was unknown in Travancore and roads were simply open tracks intended for the movement of the troops, foot travellers as well as for the rich persons who travelled either on horse-back or palanquins. After Travancore became a subsidiary ally of the British, the colonial power insisted on Travancore government to build roads taking in to consideration their political, trade and plantation interests. After Veluthampi's fight against the colonial

power, roads were built for the movement of British troops to deal any possible outbreaks against British. Due to lack of proper maintenance, the roads became useless later. During the middle of the 19th century only the road connecting Trivandrum to Quilon was mainly used by the British troops. In the case of road construction, Travancore government took a cool attitude probably due to its non-awareness of the significance of roads in the economic development of the State. Because of the repeated demands of the colonial power, a few roads were constructed. The lack of resources and technical skill also stood as obstacles for road construction as the roads had to pass through hills and valleys crossing rivers, streams and backwaters.

When Madhavo Rao became Dewan, he initiated steps for construction of roads as per the demand of colonial rulers. A Public Works Department was organized under an English Engineer and steps were taken to construct roads. Between 1864 and 1872 works were started in the case of 20 important roads with an estimate cost of about Rs. 16.98 Lakh (Table 3.1). Rapid progress was achieved with respect to construction of roads facilitating the movement of carts thereby enabling quicker movement of passengers and goods. Besides the list of important roads mentioned above, another 27 subsidiary roads having a length of 386 miles were also constructed⁴. Thus by 1874 about thousand miles of road were opened for cart traffic. With the completion of roads wheeled conveyance began to introduce in Quilon, Shencottah, Kottayam and other towns. The Kottayam Peermadu road completed in 1872 was connected to Madurai in 1876. The road began to witness a steady increase in cart traffic between Madurai and Kottayam. The construction of the roads and consequent development of cart transport had facilitated quicker movement of goods, between the major trading centres of Travancore and neighbouring territories. Due to the steady rise in expenditure on the construction and maintenance of roads and bridges, government introduced a toll on the users of bridge at Kuzhithura in 1881. Later the collection of toll was extended to other bridges and by 1911, toll began to collect from 13 important roads.

Table 3.1
List of Important Roads Constructed in Travancore Since 1864

Sl. No.	Name of road	Length of Road (Miles)	Cost of construction	Work started (Year)	Work completed (Year)
1	Kottayam to Peermade	42	2,45,520	1864	1872
2	Peermade to Gudalur Ghaut	24	1,23,084	1872	1885
3	Ashambo road	-	19,869	1864	1868
4	Quilon to Shencottah	60	3,80,430	1871	1877
5	Trivandrum to Tenmala (via) Nedumangad	45	2,07,230	1869	1876
6	Kayamkulam to Punaloor	35	1,78,635	1871	1875
7	Erumiel to Shorlacode	14	47,227	1869	1874
8	Shorlacode to foot op coffee estate	-	22,416	1871	1872
9	End of A.V.M. Canal to Rajakamangalam	-	11,367	1871	1873
10	Culachal to Nagercoil	-	14,418	1864	1866
11	Mookadavu to a point in the Kayamkulam-Punalur road 32 nd mile to Nedungayam	-	11,453	1871	1876
12	Changanachery	-	27,753	1864	1866
13	Kottayam to Changanchery	10	11,605	1871	1873
14	Tenmala to Parappur	-	21,910	1871	1876
15	Kuzhittura to Tungapattanam	10	14,682	1870	1872
16	Oollur to Bhavanipuram	-	23,748	1872	1877
17	Ayur to Changannur	-	1,11,310	1872	1877
18	Puliyara to Schencottah	12	18,760	1871	1875
19	Trivandrum to Nedumangad	34	42,374	1869	1872
20	Nedumangad to Tenmala	-	1,64,856	1870	1876
	Total	286	16,98,647		

Source: Nagam Aiya. V. Travancore State Manual, Vol. III, op.cit, P.222

Bullock cart was the important vehicle used for the transportation of goods and passengers till 1930's. Motor vehicles were became popular only during 1930's, though

the first motor vehicle was introduced by around 1912⁵. During the early years of its introduction, motor vehicles were mainly owned by members of Royal family, rich people and Europeans. During 1920's there had been an increase in the number of motor vehicles and it began to run on a hire basis. By 1932, the number of motor vehicle in Travancore had increased to 1677⁶. Within a short period the motor vehicles became very popular as evident from the fact about 1002 buses began to carry passengers. In 1932, transportation of goods through lorries were not as popular as in the case of passenger transport. There were only 89 lorries in 1932. During 1930's there was fierce competition between the private bus operators to operate bus service in Trivandrum town. The competition came to such an extent that more bus trips were operated in routes compared to actual requirements. Seeing the unhealthy development in bus transport operations, the government decided to nationalize some of the routes and a Transport Department was started in 1937.

During the 20th century, government followed the policy of taking the entire responsibility for constructing and maintaining the roads till 1930's. But since then government has entrusted the maintenance of the subsidiary roads coming within municipal areas to the local bodies by giving grants. Government introduced a policy of taking over the roads constructed by private individuals and agencies by specifying certain requirements. These encouraging policies had helped to construct 4743 miles of roads including both main and village roads by 1947-48. Of this 3757 miles were main roads and 986 miles were village roads. A taluk wise length of roads reveals that Thiruvalla taluk rank first followed by Kalkulam, Moovattupuzha, Kunnathunad, Kottayam and Trivandrum.

(4) Railways

Compared to Malabar, railways were introduced in Travancore only later by the beginning of the 20th century. The colonial government, in order to safeguard their political and trade interest put forward a proposal to Travancore government for constructing a railway line connecting Tinnuvelly to Quilon during 1870's. At first Travancore was not very much enthusiastic about the proposal as the conditions put forward by the colonial government were highly unfavourable to Travancore's interests.

But because of the colonial pressure, Travancore was forced to agree to introduce railways on the basis of the conditions stipulated by the colonial government and south Indian railway company. The terms included payment of interest on the capital raised for the construction of railways coming within Travancore territory on the basis of the actual expense incurred for construction and retaining the right of colonial government to purchase the entire railway line at the end of 21 years. Travancore government also advanced a sum of Rs. 17 lakh to the company to start construction work. Though there were differences of opinion between colonial government and Travancore on the selection of two routes suggested by the South Indian Railway Company, the route suggested by Travancore was finally selected. Of the total length of the line 50 miles were in Madras province and 58 miles in Travancore territory. The construction of the railway line started in 1899 and was completed in 1904. The train services were commenced between Quilon and Tinnevely from November 1904. During the early 1920's Travancore government took initiative to extent the railway line from Quilon to Trivandrum by meeting the entire cost of extension including the cost of rolling stock. The construction of the line was completed and opened for services in January 1918. The line was further extended from Chakai at Trivandrum to Trivandrum Central where the present railway station is located in November 1931.

Besides the above railway lines, Travancore also co-operated with the colonial government for the construction of Shoranur Ernakulam railway line which passes 18 miles through Travancore territory. Though Travancore was not interested in the construction of the railway line, Travancore was forced to provide land at free cost and contributed about one third of the interest cost of the capital expenditure due to colonial pressure. The construction of the metre gauge line was opened for traffic in June 1902 (Table 3.2).

The introduction of railways in Travancore had further speeded up the process of development of road transport. With the introduction of railways a good part of the passenger and goods traffic had been shifted from inland water transport and road transport to railways. The growth in traffic of railways registered a slow but steady rise during the first three decades of 20th century (Table 3.3).

Table 3.2
Opening of Railway Service in Travancore

Sl. No.	Name of the section	Gauge (x)	Opening date
1	Shornur – Ernakulam (18 miles through Travancore territory).	metre	2 nd June 1902
2	Tinnevely to Quilon	metre	26 th November 1904
3	Quilon to Trivandrum Chackai	metre	1 st January 1918
4	Chackai to Trivandrum central	metre	4 th November 1931
5	Ernakulam to Kottayam	metre	17 th October 1956
6	Kottayam to Quilon	metre	6 th January 1958

(x): The metre gauge line was converted into a broad gauge line by around 1935. Further it was extended from Ernakulam to Cochin Harbour on 1st July 1940.

Source: Kerala District Gazetteers; Trivandrum, Quilon, Kottayam and Ernakulam.

Table 3.3
Operations of Railways in Travancore

Sl. No	Item	1928-29	1947-48
1	Distance of routes (miles)	95.96	97.64
2	Rolling stock		
	(a) Loco motive (November)	19	35
	(b) Coaches (“)	44	92
	(c) Goods wagons (“)	424	428
3	Number of passengers travelled	34,70,324	80,11,514
4	Total goods traffic (Tons)	5,31,482	7,83,116
5	Total train miles	6,17,666	6,93,387
6	Percentage of net-earnings on total capital outlay	3.26	6.72

Source: Statistics of Travancore 1928-29, op. cit. pp. 210-214 and Statistics of Travancore 1947-48, op. cit. p.p. 380-384.

The trend in the growth of traffic registered a further rise during 1930's and 1940's leading to better utilization of available capacity and enhancing the return of the capital invested.

PART II

Electricity Generation

The electricity generation was started in Travancore during the first decade of the 20th century. The first attempt to generate hydro-electric power was made by Kannan Devan

Hills produce company, a firm of the European Planters, with the installation of 200 KW plant for supplying electricity for their tea factories at Munnar in 1906⁷. By realizing the advantages and cheapness of the hydro-electric power they have extended the plant and had six generating sets with a total capacity of 1900 KW by the end of 1930's. Besides supplying electricity to their tea factories, power was also used to run their rope way connecting various estates.

Though electricity generation was started in Travancore during the first decade of the 20th century in private sector, Travancore government took steps for electricity generation and supply only during the beginning of the decade 1920's. By 1928, work relating to small thermal station was completed and electricity supply was started with 541 street lights and two consumers in Trivandrum town. Within a few years it was found that there was very great demand for power not only for lighting purposes but also for running factories. The return of 8% from the capital invested for the supply of electricity in Trivandrum also encouraged further expansion in electricity supply. Following this, generation capacity of the Trivandrum power station had been enhanced and power began to supply to rubber factory, printing press, oil mills, flour mills, pumping plants and ice factories. The success of the Trivandrum power house had attracted private individuals to the electricity generation and supply field. Licenses were issued to private individuals for generation and distribution of power in the towns of Kottayam (1931) and Nagercoil (1933). Government started its own power house at Quilon with three diesel electric generation sets and began the supply of power in 1934. Subsequently one thermal station was started by government at Kalamassery and another in private sector at Schencottah. These thermal plants had many limitations. Firstly, these plants were small and designed primarily for the supply of electricity to domestic and street lighting. Secondly, the quantity of generation of power from these plants were too meagre compared to the fast growing demand for power for lighting as well as individual purposes. Thirdly, these plants were installed only in major towns thereby limiting the electricity supply to major towns only.

The initial success in power generation, the fast growing demand for electricity for domestic as well as industrial purposes, and the government awareness about the absence

of cheap power for industrial development had prompted the government to explore the possibilities of generating hydro-electric power at large scale. After conducting a dozen preliminary investigations to identify a suitable hydro-electric project, the Pallivasal project was finally selected. The Pallivasal project included construction of a water tunnel of about 10,000 feet long, three generating units of 4500 KW each and envisaged the transmission to a distance of about 147 miles. The project envisaged the distribution of hydro-electric power to most of the important towns and several centres in north and central Travancore. The construction work of the project started in 1933 and the first stage was completed in 1940 with a capacity of 9000 KW. In the same year power from Pallivasal was made available to Trivandrum district through heavy transmission lines from Kundara K. V. sub stations. With the commencement of the Pallivasal hydro-electric stations the distribution system of the thermal stations were connected to Pallivasal.

The completion of the project had stimulated the industrial as well as agricultural development of Travancore. Prior to the commencement of electricity generation from Pallivasal hydro-electric project, electrical energy was used chiefly by tea factories owned by Kannan Devan Hills Produce company which maintained its own power Station at Munnar. After 1940, mineral, ceramic and tile factories, textiles and rice mills formed the major industrial consumers connected to Pallivasal project. Within a decade oil mills, flour mills, rubber factories, paper mill, saw mills, timber works, aluminium and fertilizer factories emerged as major power uses. Many major industrial units were established in Travancore during the period between 1930 and 1949. The power from Pallivasal was used for dewatering thousands of acres of Kayal lands for punja cultivation and also for introduction of lift irrigation. By 1942-43, it was estimated that the total area thus dewatered was about 7200 acres.

Following the success of Pallivasal project, the sengulam project which was a tail-water development of the Pallivasal scheme was started in 1944-45. Work on the second stage of the Pallivasal project was already started in 1940 and achieved considerable progress. With the integration of Travancore and Cochin States in 1949, the distribution network from Pallivasal project was extended to Cochin region. The Sengulam hydro

station was commissioned in 1954 with an installed capacity of 48 magawatts. Consequent to this, the existing small thermal plants in Travancore-Cochin had been closed down (Table 3.4). In 1955-56 the terminal year of the first five year plan, the entire supply of electrical energy in Travancore-Cochin State come from the hydro-electric projects of Pallivasal and Sengulam. And total power generation from these projects also increased to 350 million units in 1955-56.

Table 3.4
Power Generation in Travancore (in million units)

Project	1950-51	1952-53	1953-54	1955-56
Pallivasal hydro-electric project	148.89	184.67	207.96	237.93
Sengulam hydro-electric project	-	-	-	111.86
Trivandrum thermal station	1.37	0.40	0.10	-
Nemmara thermal station	0.21	0.21	0.21	-
Trichur thermal station	0.29	0.26	0.31	-
Ernakulam thermal station	0.21	-	-	-
Nagercoil thermal station	-	-	0.12	-
Total	150.97	185.54	208.70	349.79

Source: Administration reports of electricity department, government of Travancore-Cochin.

Conclusion

Transport

A notable feature of Travancore's geography was the extensive backwater network connecting one region to another. Construction of canals to connect Trivandrum to the backwater of Kadinamkulam and the other to connect Quilon and Paravur was completed in 1828 A D. With the completion of Varkala tunnel direct water communications to Quilon was possible resulting in the traffic movements towards Quilon and Alleppey ports by 1880. Though, efforts were made to extent the inland water communication network from Trivandrum to Cape comerin, it was not successful due to rocky cliffs.

Though Travancore had 18 ports, the four important ports were Alleppey, Quilon, Trivandrum and Culachal. As early as 1760's attempt were made by Travancore

Government to expand port facilities at Alleppey in the north and Vizhinjam in the south. Till 1829 Quilon was the principal port town of Travancore.

Due to lack of roads and the existence of a long distance natural water communication network, much of the transportation of goods were carried through inland water ways till the second half of the 19th century. The first attempt to construct roads was made under the rule of Marthanda Varma in 1750-51. During those days, cart traffic was unknown in Travancore and roads were simply open tracks intended for the movement of the troops and foot travellers. The British who assumed the role to protect Travancore from external aggression, demanded the construction of roads. Between 1864 and 1872 road construction works were started in the case of 20 important roads with an estimated cost of about Rs. 16.98 Lakh. By 1874 about thousand miles of road were opened for cart traffic. With the completion of roads wheeled conveyance began to introduce in Quilon, Shencottah, Kottayam and other towns. The Kottayam-Peermadu road was completed in 1872 was connected to Madurai in 1876. The road began to witness a steady increase in cart traffic between Madurai and Kottayam. Bullock cart was the important vehicle used for the transportation of goods and passengers till 1930's.

Motor vehicles were became popular only during 1930's, though the first motor vehicle was introduced by around 1912. By 1932, the number of motor vehicles in Travancore had increased to 1677. Within a short period, the motor vehicles became very popular as evident from the fact that about 1002 buses began to carry passengers. During the 20th century, government followed a policy of taking the entire responsibility for constructing and maintaining the roads till 1930's. But since then government has entrusted maintenance of subsidiary roads coming within municipal areas to the local bodies by giving grants.

Railways

Railway line connecting Tinnevely to Quilon was started only by the beginning of the 20th century, due to the pressure of British colonial power. Of the total length of the line, 50 miles were in Madras province and 58 miles in Travancore territory. The construction of the railway line started in 1899 and was completed in 1904. The train services were

commenced between Quilon and Tinnevely from November 1904. During the early 1920's Travancore government took initiative to extent the railway line from Quilon to Trivandrum by meeting the entire cost of extension including the cost of rolling stock. The construction of the line was completed and opened for services in January 1918. Besides the above railway line, Travancore also co-operated with the colonial government for the construction of Shoranur-Ernakulam railway line which passes 18 miles through Travancore territory.

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rice mills formed the major industrial consumers connected to Pallivasal project since 1940 AD. Within a decade, oil mills, flour mills, rubber factories, paper mill, saw mills, timber works, aluminium and fertilizer factories emerged as major power users.

Notes

- 1) Nagam Aiya. V. Travancore State Manual Vol. I. op. cit. P.22
- 2) The ports were Aleppey, Quilon, Trivandrum, Culachal, Rajakkamangalm, Manakudy, Perumathura, Argengo, Paravur, Thangassery, Kayamkulam, Purakkad, Kantur, Manacadam, Monabom, Mungalamartupulay, Kovalam and Cape comerin. For details see. Velupillai T.K. Travancore State Manual, Vol. V. op. cit . Chap.33.
- 3) Velupillai T. K. Travancore State Manual Vol. IV op. cit. p. 187.
- 4) Nagam Aiya. Travancore State Manual Vol. 3 op. cit P. 23.
- 5) Velu Pillai T. K. Travancore State Manual Vol.III P. 494.
- 6) Ibid. P. 494.
- 7) Velu Pillai T. K. Travancore State Manual Vol. op. cit p. 498.

CHAPTER 4

EDUCATIONAL CHANGE

Prior to the introduction of western system of education, three kinds of educational institutions viz. Ezhuthupallis, (Pial Schools) Kalari (Military training schools) and Vedic (Sanskrit) schools existed in Travancore¹. The ezhuthupallis provided educational facilities to mostly upper caste students to acquire the rudiments of knowledge. The schools are private institutions and the teachers depend entirely upon the students for their maintenance. After undergoing instruction in these Ezhuthupallis, the students goes to Kalaris or to Vedic Schools. The feudal and caste based society that existed in Travancore during the 19th century, educational opportunities were totally denied to the lower caste people.

The introduction of western system of education can be attributed to the efforts of the protestant missionaries who came to Travancore for missionary work during the early decades of 19th century. The first English School in Travancore was started by missionaries during a period between 1806 and 1816². The missionaries of London Missionary Society established a number of schools in Travancore which imparted free education in reading, writing and arithametic to poor children irrespective of cast and creed. This was the first opportunity opened to the children belonged to the depressed caste to attain literacy. The missionaries of the London Missionary society also established a seminary at Nagercoil in 1818 which became the first institution which imparted regular English education in Travancore. The first attempt to introduce female education was also made by the missionaries by starting a boarding school at Nagercoil in 1819.

Besides the London Missionary Society, another group of missionaries, Church Missionary Society also worked for spread of education. The mission concentrated their work in central and northern parts of Travancore to improve the spiritual conditions of the Syrian Christians. As early as 1815, the Syrian Christians had a college at Kottayam for training their priests. The college later became the C.M.S. College.

Though a few schools were started by the Travancore government during the first part of 19th century, active encouragement for education was given only since Madhavo Rao took over as Dewan of Travancore. Madhavo Rao was fully aware of the importance of education and wanted to spread western type of education among the upper caste people who were reluctant to send their children to the schools run by missionaries and attended by the low caste children. Besides starting English Schools, Madhavo Rao also implemented a new educational policy to promote vernacular education in 1860. He linked government employment to academic qualifications and introduced a system of grants-in-aid and established a book committee to translate and write text books.

To attract the upper caste children to schools, he declared that in future all government posts above to that of a peon would be filled by educated men and introduced a system of general test to be qualified to become in government service. In order to standardized the instruction and to have partial control on private schools, the government laid down certain norms for giving grants-in-aid. Introduction of the same course of instruction followed by government schools, adoption of similar text book and employing qualified teachers were the three conditions laid down for the purpose. To improve the quality of instruction, the private schools were brought under periodical inspection. As a result of the promotional measures, the number of schools, both government and aided had increased from 12 in 1865 to 1606 in 1895 (Table 4.1).

Among the schools, Christian schools accounted for the majority till the end of 19th century. Among the Christian Schools which were supported by government grants, protestant missions such as L.M.S. and C.M.S. accounted for majority of schools till the end of 19th century (Table 4.2)

Attempts were also made to promote higher education. A law class started in 1871 was shifted to a new Law College in 1894. The Rajas free school was raised to the status of a college, which become the University college. In 1897 the government girls school was converted in to a college for women. In private sector, the C.M.S. College which started earlier at Kottayam acquired the status of a second grade college in 1892. The missionaries working in the south also started a college. The Scott Christian College at Nagercoil in 1893.

Table 4.1
Growth of Vernacular Schools in Travancore

Year	Vernacular Schools (Sirkar and aided)	Students
1865-66	12	855
1866-67	20	1,388
1867-68	49	3,455
1868-69	48	3,639
1869-70	53	3,075
1870-71	188	8,064
1871-72	216	8,452
1874-75	233	11,466
1879-80	598	29,563
1884-85	857	43,513
1889-90	979	47,044
1894-95	1,606	82,820
1899-1900	1,283	83,058
1904-05	1,483	99,757

Source: Robin Jeffrey, *The Decline of Nayar Dominance*, Vikas Publishing House, New Delhi 1976, P.80.

Table 4.2
Christmas Schools Receiving Grants-in-aid

Christian Schools	1879	1885	1890	1895
Mar Thomas Athanasius	82	87	96	103
Mar Diony Sius	52	88	93	92
All Roman Catholic	0	5	23	49
Protestant	207	231	331	468
Total	341	411	543	712

Source: Robin Jeffrey, *The Decline of Nagar Dominance op. cit.* P.124

As a result of the educational development, Travancore had about 3727 educational institutions with a student strength of 1.97 lakhs by the beginning of 20th century (Table 4.3). The literacy rate of Travancore also increased from 5.75 percent in 1875 to 12.36 percent in 1901 (Table 4.4). Female literacy rate also increased to 3 percent. The achievement was so significant that Travancore stood first among Indian provinces and States in the matter of literacy in 1901³.

Table 4.3
Educational Institutions in 1903-04

Sl. No	Grades of Schools	Total number of educational institutions.	Number of students
1	College	6	430
2	High Schools (English)	25	9056
3	Middle Schools (English)	55	5858
4	High Schools (Vernacular)	2	1092
5	Middle Schools (Vernacular)	87	19177
6	Upper Primary Schools	92	10701
7	Lower Primary Schools	3433	149902
8	Special Schools	27	1169
	Total	3727	197385

Source: Nagam Aiya V, The Travancore State Manual, Vol. II, P.461

Table 4.4
Growth of Literacy in Travancore

Year	Percentage of Literacy		
	All Persons	Male	Female
1875	5.75	11.08	0.46
1891	10.98	20.51	2.70
1901	12.36	21.48	3.07
1911	14.97	24.78	4.96
1921	24.17	33.07	15.01
1931	23.90	33.78	13.90
1941	47.20	58.19	36.13

Source: (1) Census of India, Vol. Travancore P.24 and 209

(2) Census of India 1941, Vol. 25, Travancore P.164

Though Travancore achieved Impressive record of educational development, the benefits were largely went in favour of upper caste people. The government schools were exclusively meant for children belonging to upper Hindu caste, Syrian Christians and Christian converts. The prohibition denying admissions to children belonging to lowest caste in government schools continued till 1911. And the schools run by Christian missionaries were the only schools which admitted the children belonging to low castes. Because of this, only a very few childrens belonging to lower caste, especially the slave

castes got opportunities to study in the schools. The policy of linking education qualifications to government jobs also helped only to safeguard the interest of upper caste Hindus, who dominated the administrative scene of Travancore.

Educational Change during 20th Century

During the first half of the 20th century a number of promotional measures were taken to promote both school and university education. In 1902 the schools were reclassified into four classes, viz. high, middle, upper primary and lower primary. With the objective to improve the quality and performance, the schools were brought under the grant-in-aid scheme. Another progressive measure taken was the removal of restrictions imposed on children belonging to lower castes on admission to government schools in a phased manner. At first the government schools were opened only to children belonging to backward communities. By 1911, restrictions on admissions of the lowest categories of castes such as Pulayas etc. were removed. Another important decision of government was to accept in principle the responsibility of meeting the entire cost of primary education to all children of the State in 1904.

In the field of higher education, a major step that had taken was the starting of University of Travancore in 1937. Till then, the colleges in Travancore were affiliated to Madras University and the students faced a lot of inconveniences due to its location at Madras.

The expansion in educational activities is evident from the increase in government expenditure on education. The government expenditure had increased from Rs. 6.41 lakh in 1904 to Rs. 89.39 lakh in 1947.

Travancore achieved remarkable achievement with respect to increase in literacy rate. The literacy rate had increased from 12.4 percent in 1901 to 47.2 percent in 1941. (table 4.4). A notable development was the increase in the literacy rate of females from 3 percent to 36 percent. But the literacy rates of the slave caste did not register much increase. In the case of slave caste such as Pulayan, Parayan, Kuravan etc. the literacy ranged between 8 to 17 percent of the total population of their respective caste.

During the first half of the 20th century, there had been an all-round increase in the various categories of educational institutions. Among the educational institutions, the number of primary schools had more than doubled between 1911 and 1941 (Table 4.5). There was steady increase in the number of middle and high schools imparting instruction in Malayalam and English. Besides schools, Travancore also had 10 Colleges and 122 other categories of schools for giving teacher training and technical education.

Table 4.5
Growth of Educational Institutions in Travancore

Sl. No.	Category of Institutions	1911		1941	
		Number of Institutions	Number of Students	Number of Institutions	Number of Students
1	Arts and Science College	4	432	7	2843
2	Law College	1	163	1	156
3	Training College	1	56	1	131
4	Sanskrit College	-	-	1	90
5	English High schools	29	9563	125	45702
6	English Middle Schools	39	3139	217	25984
7	Malayalam and Tamil High Schools and Middle Schools	123	35547	549	182818
8	Primary Schools	1433	110012	2902	496281
9	Training, Technical and special schools	19	819	122	10539
	Total	1649*	159,831*	3925	764,549

*1491 Private unorganized institutions with a student strength of 51,942 existed in 1911 were excluded.

Source: Census of India 1941, Vol.25, Part II Travancore. P.217.

Conclusion

Prior to the introduction of western system of education, three kinds of educational institutions viz. Ezhuthupallis, (Pial Schools) Kalari (Military training schools) and Vedic (Sanskrit) schools existed in Travancore. In a feudal and caste based society of Travancore, educational opportunities were totally denied to the lower caste people

during the 19th century. The introduction of western system of education can be attributed to the efforts of the protestant missionaries who came to Travancore for missionary work during the early decades of 19th century. The missionaries of London Missionary Society established a number of schools in Travancore which imparted free education in reading, writing and arithmetic to poor children irrespective of caste and creed. This was the first opportunity opened to the children belonged to the depressed castes to attain literacy. Church Missionary Society (CMS) was another group of missionaries worked to spread education.

Though a few schools were started by the Travancore government during the early part of 19th century, active encouragement to promote vernacular education was started since 1860. A grant-in-aid system was introduced for starting educational institutions. Educational qualifications were prescribed for getting government jobs. To attract the upper caste children to schools, the government declared that in future all government posts above to that of a peon would be filled by educated people and introduced a system of general test to be qualified to become in government service. As a result of the promotional measures, the number of schools, both government and aided had increased from 12 in 1865 to 1606 in 1895.

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Notes

- (1) Kerala District Gazetteers, Trivandrum P. 649
- (2) Nagam Aiya V, Travancore State Manual, Vol. II, P. 446.
- (3) Census of India 1901, Vol.26, Travancore, P.218.

CHAPTER 5

CONCLUSION

1. Agricultural Change

By the beginning of 19th century, Travancore was a backward economy having the features of a traditional agricultural economy. But, during a period of one and a half century Travancore witnessed rapid change in agriculture. Among the numerous crops cultivated in Travancore, the important ones were rice, coconut, tapioca, pepper, rubber, tea, ginger and coffee. Among these crops tapioca, coffee, tea and rubber were not native crops, but were introduced to Travancore. Available evidences suggested that Travancore exported rice till about 1840's. But the import of rice during 1850s, to meet the growing domestic demand of rice from other British territories had resulted in the steep fall in price of rice and discouraged paddy cultivation and promoted commercial crops. Coconut was the second major crop which accounted for more than 50 percent of the total export earnings of Travancore between 1870 and 1910. Pepper was another major crop. The earliest relations between the British and the Travancore State were established on the basis of a pepper contract. Coffee, tea and rubber were introduced in Travancore by colonial planters.

Colonial exploitation was the chief motive of the British colonial power in Travancore. But their superintendence of Travancore administration had resulted in large scale exploitation of state's resources. Vast areas of forest land were given to colonial companies on the basis of agreement between Travancore and the Companies. The largest foreign company was the British Kannan Devan Hill Produce Company and an area of about 215 square miles had been leased out to the Company. Besides providing land for coffee plantation through grants and sale of forest and waste lands, the government also followed a policy of encouraging coffee cultivation by constructing roads in coffee planting regions and granting road building subsidies to planters. Though tea had been

cultivating in northern India, it was introduced in Travancore, only during 1860's. By the first decade of the 20th century, European planters started planting rubber in a few estates. The introduction of the plantation crops and their large scale cultivation in hilly areas led to the expansion of road and communication networks, expanded trade and commerce and created favourable conditions for the commercialization of agriculture of Travancore.

Due to the annexation of land belonged to conquered chieftans and acquisitions of landed property of 378 wealthy temples, nearly two thirds of the cultivated area were under the direct ownership of the state in 1812. But the Travancore government has not followed a policy to distribute the land to the peasants. The land tenure measures that implemented during 19th century and the first half of the 20th century completely ignored the interests of the tenants-at-will. By the beginning of the 20th century it was estimated that about nine-tenth of the wet lands in Travancore was actually cultivated by the tenants-at-will who had taken land on oral lease, Pathivaram. According to 1931 census out of the total agricultural holdings, 38 percent had a size of holding below one acre. While thousands of acres of land were given to colonial planters at free of cost, the native farmers were not given a small piece of land.

During the early parts of the 19th century a good part of the agricultural work was carried out with the help of agrestic slaves like pulayar, pariahs and Kuravan. Government also owned slaves for leasing to private landlords for cultivation purposes. During the early 1850's, slaves numbering about 15,000 were owned by the government for giving on lease to private land holders. The land holders had to pay an amount to government and had the obligation to find the slaves. Disobedient slaves were beaten and murdered with impunity and all slaves could be legally sold. Though the efforts of the missionaries compelled the government to abolish slavery in 1855, the conditions of the slave people remained without much change.

The hierarchical caste system and the caste practices that existed in Travancore stood as a major obstacle for social and economic change. Low caste people were not given free access to courts, markets and public offices. Caste prejudices stands in the way of admitting low caste children in the government schools. The caste system denied opportunities for the lower and slave caste people to move to new places, new

occupations, attain literacy and engage in non-traditional activities, thereby improving their economic condition. The matrilineal system of inheritance (Marumakathayam) followed by Nairs, the dominant land owning caste, also stood as an obstacle to agricultural development. Thus the caste system prevented labour and occupational mobility, discouraged innovative and enterprising activities connected with agriculture, industry, trade and commerce.

2. Industrial Change

Weaving, spinning, ivory works, coir yarn manufacture, extraction of oil, smithy, pottery, wood carving, preparation of coconut jaggery, bell metal works etc were the important traditional village industries that existed by the beginning of 19th century. The extraction of coconut oil was one of the earliest industries of the State using Country ghani. Ivory carving was another major industrial arts that flourished. In a hierarchical caste society where everything was determined by caste rules and traditions, each category of industrial work was assigned to each caste. The industrial sector remained stagnant with the traditional village industries and industrial arts dominating the scene till the middle of the 19th century.

But since 1850's there was a gradual change in the industrial scene following the starting of a few factory type industrial units by European Capitalists. Factory type coir mats and mattings, industrial units were started by colonial investors. And Alleppy town began to emerge as the centre of coir weaving industry. The localization of coir mats and mattings industry encouraged migration of large number of workers from surrounding places to Alleppy town. The policy of giving active encouragement to plantation crops during 1860's also led to the establishment of coffee and tea processing industries in the later decades. Though the inflow of European capital into Travancore since the second half of 19th century had helped to start a process of industrialization, the imposition of colonial trade policies of Travancore and starting of spinning mills had resulted in the destruction of cottage handloom weaving and spinning industry that thrived in different parts of Travancore. Import of mill made cloth also destroyed the cottage handloom weaving industry which provided the largest employment in the industrial sector.

The industrial growth which started since the second half of the 19th century attained a further momentum during the first half of the 20th century except the depression period (1929 to 1936). During the pre-depression period, though the government followed a policy of encouraging industrial growth, many infrastructural bottlenecks stood in the way of industrialization. The failure of a number of industrial enterprises started by natives, who were totally unfamiliar to industrial activities also discouraged the starting of new industrial units. Lack of electricity was cited as another major obstacle to industrial growth. However the introduction of oil, steam, gas or electric engines, promoted industrial development. The shift towards the adoption of western technology had increased production and had a demonstration effect on the local entrepreneurs.

The steps taken by Travancore to construct a hydro-electric project at Pallivasal aiming at generation of electricity for industrial purposes attracted many industrial ventures into Travancore. The coir weaving industry which established in Alleppey town began to spread towards Sherthalai mainly to take advantage of cheap raw materials and cheap labour available there during the post first world war period. Cashew processing began to start on a commercial basis in Travancore by around 1925 with the export of a few tonnes of cashew Kernel to U.S.A. Within a short span of about ten years, the industry grew rapidly and firmly established as a leading industry, due to growing demand for Cashew Kernel in foreign markets especially in U.S.A. Though there had been a growth in factory type industrial units during the post-depression period, the cottage cotton weaving industry witnessed a steady decline.

3. Transport and Power sectors

Transport

A notable feature of Travancore's geography was the extensive backwater network connecting one region to another. Construction of canals to connect Trivandrum to the backwater of Kadinamkulam and the other to connect Quilon and Paravur was completed in 1828 A D. With the completion of Varkala tunnel direct water communications to Quilon was possible resulting in the traffic movements towards Quilon and Alleppey

ports by 1880. Though, efforts were made to extent the inland water communication network from Trivandrum to Cape comerin, it was not successful due to rocky cliffs.

Though Travancore had 18 ports, the four important ports were Alleppey, Quilon, Trivandrum and Culachal. As early as 1760's attempt were made by Travancore Government to expand port facilities at Alleppey in the north and Vizhinjam in the south. Till 1829 Quilon was the principal port town of Travancore.

Due to lack of roads and the existence of a long distance natural water communication network, much of the transportation of goods were carried through inland water ways till the second half of the 19th century. The first attempt to construct roads was made under the rule of Marthanda Varma in 1750-51. During those days, cart traffic was unknown in Travancore and roads were simply open tracks intended for the movement of the troops and foot travellers. The British who assumed the role to protect Travancore from external aggression, demanded the construction of roads. Between 1864 and 1872 road construction works were started in the case of 20 important roads with an estimated cost of about Rs. 16.98 Lakh. By 1874 about thousand miles of road were opened for cart traffic. With the completion of roads wheeled conveyance began to introduce in Quilon, Shencottah, Kottayam and other towns. The Kottayam-Peermadu road was completed in 1872 was connected to Madurai in 1876. The road began to witness a steady increase in cart traffic between Madurai and Kottayam. Bullock cart was the important vehicle used for the transportation of goods and passengers till 1930's.

Motor vehicles were became popular only during 1930's, though the first motor vehicle was introduced by around 1912. By 1932, the number of motor vehicles in Travancore had increased to 1677. Within a short period, the motor vehicles became very popular as evident from the fact that about 1002 buses began to carry passengers. During the 20th century, government followed a policy of taking the entire responsibility for constructing and maintaining the roads till 1930's. But since then government has entrusted maintenance of subsidiary roads coming within municipal areas to the local bodies by giving grants.

Railways

Railway line connecting Tinnevely to Quilon was started only by the beginning of the 20th century, due to the pressure of British colonial power. Of the total length of the line, 50 miles were in Madras province and 58 miles in Travancore territory. The construction of the railway line started in 1899 and was completed in 1904. The train services were commenced between Quilon and Tinnevely from November 1904. During the early 1920's Travancore government took initiative to extent the railway line from Quilon to Trivandrum by meeting the entire cost of extension including the cost of rolling stock. The construction of the line was completed and opened for services in January 1918. Besides the above railway line, Travancore also co-operated with the colonial government for the construction of Shoranur-Ernakulam railway line which passes 18 miles through Travancore territory.

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