CHAPTER - 1

INTRODUCTION

India is a country where agriculture directly shapes the daily lives and hopes of the vast majority of people. The agricultural sector in the country contributes nearly one-third of the gross domestic product and provides employment to about sixty-five percent of the working population. In India agriculture’s role is also prominent in addressing several key development issues like poverty, employment, women in development, rural non-agricultural growth and environmental concerns. Booming agricultural growth is expected to promote growth in other sectors of the economy. Traditional economists assigned passive and supportive role to agriculture and considered industries to be the leading sector in economic development. In recent years, an enhanced appreciation is witnessed among researchers and policymakers, of the multifaceted role that agriculture plays in the process of economic development. Agricultural and rural development came to be seen as the sine qua non of national development. In the initial stages of growth of many of the developed countries, agriculture was a major source of exports and the resulting command over the resources possessed by these developed countries played a strategic role in facilitating modern economic growth (Kuznets, 1961).
Kerala leads other states in the country in respect of gross income generated per hectare of cultivated land. In the year 1996-97, the average income generated per hectare was Rs. 31468 in the state as against the national average of Rs. 14178 (Data Book on Agriculture, 2001). The agricultural sector accounts for more than eighty percent of the total income and the employment generated within the primary sector and contributes about twenty five percent of the net state domestic product and thirty eight percent of the total employment in the state. The agricultural wealth of Kerala is one, which exhibits astonishing diversity. The bio-physical resource base and agro-climatic endowments provide multiple opportunities for raising a wide range of crops. The production system spans a continuum from traditional peasant agriculture to high value crops.

The plantation sector comprising rubber, tea, coffee and cardamom is the highly cash-rich segment within the agricultural sector in Kerala. The state accounts for 45 percent of the total area under plantation crops in the country and they together account for 28 percent of the net cropped area of the state. Kerala is one of the few states in India where all the four plantation crops are raised in sizeable quantities. Nearly 14 lakh families are dependent on the plantation sector for livelihood. Plantation crops in general are either export oriented or import substituting and therefore assume special significance from the national point of view.
The agricultural economy of the state has been undergoing a perceptible process of diversification in the last few decades. A noteworthy feature in the pattern of agricultural development, witnessed since the early 1970’s is the shift in the cropping pattern in favour of commercial crops. Food crops, largely the small farm sector, unable to withstand the domination of commercial or plantation crops, naturally lost the pride of place it once enjoyed and have become less remunerative compared to the more patronized plantation crops. The relatively higher profitability of cash crops and plantations, exemption of plantation crops from land reforms act and the promotional activities of the government are the main factors, which account for the shift in the cropping pattern observed in the state. In the past, the choice of the crop was largely guided by agronomic considerations whereas the emerging trends reveal that more than anything else economic forces act as the important determinant in decision making on the agricultural front. The increasing significance of the plantation sector compels an inevitable emphasis in any analysis of regional development of the state.

The recorded chronology of plantation crops in Kerala indicates that organized commercial cultivation of plantation crops in the state started in the order of coffee, cardamom, tea and finally rubber. It was the colonial powers that recognized the state’s potential as a venue for plantation agriculture. The English East India Company established the first plantation in the whole of South
India in the year 1797 in Anjarakandy village of Malabar district. Although the first plantation was set up in Malabar, the region could not make much headway in the development of plantation sector. It was only after 1920’s with the immigration of Travancorean peasants that large-scale expansion of plantations took place in the region. In Travancore, however, plantations did have an early start. The congenial atmosphere created by the promotional policies followed by the Travancorean government attracted metropolitan capital to make investments in large-scale plantations in the region.

The expansion of plantations sowed the seeds of agrarian commercialization in the state. Historically, commercialization of agriculture was viewed as a means by which specialization was promoted within agriculture and its productivity was raised (Raj, 1985). The process encompasses the development of four markets, viz land, labour, credit and product markets (Bhaduri, 1985). In Travancore, development of the plantation sector was accompanied by a simultaneous development of the aforesaid markets. The spread of plantations gave additional stimulus to the expansion of the already existing land market (Varghese, 1970). The spurt in the prices of cash crops led to an increase in trade, which in turn, generated growth impulses in the credit and product markets (Oommen, 1976). Side by side a market for labour developed not only in the agricultural but also in the non-agricultural sectors of the region (Kannan, 1988). While commercial agriculture made rapid
strides in Travancore, the neighbouring state of Cochin was also affected by the development impulses, but only to a lesser extent. The Malabar district, which was directly under British administration, was least affected by the socio-economic change that was taking place in the other two regions of the state. The tenurial system of Malabar with its attendant evils of 'rack-renting, extortionate renewal fees, inadequate compensation for improvements' (Innes, 1951) and heavy concentration of land in the hands of a small landlord class, failed to create the necessary framework for the rapid commercialization of the region. Malabar, a very backward agricultural economy at the inception of colonial rule, remained so till the end of the rule (Prakash, 1988). Most commercial activity has been confined to so small a scale and so poorly integrated that it adapted itself to market organization and production patterns characteristic of pre-capitalist economies (Thomas Shea, 1959).

The emergence of plantations ushered dualism within the agricultural sector of the economy. On the one hand, there arose a modern sector consisting of market-based production of cash crops and on the other there existed a traditional sector engaging in paddy cultivation (Umadevi, 1984). Travancore region specializing in plantation crops was far ahead of Malabar in terms of various socio-economic indicators of development. The development impulses generated by the plantation sector in the spheres of education, health,
banking, trade and transport are evidenced in the colonial history of Travancore.

The Problem

Agrarian Commercialization was initiated in Kerala with the setting up of large-scale plantations by the metropolitan powers. However, the process of commercialization was not uniform within the state. Due to the prevailing congenial atmosphere, commercialization made rapid strides in Travancore - Cochin, which comprises the southern and central regions of the state. While Malabar, in the north, which was directly under British rule, was least affected by the process of socio-economic change that was taking place in the neighbouring regions. The socio-economic development of Travancore region was in many ways concomitant to the development of plantation sector. Hence agrarian dualism, ushered in by the emergence of plantations, can be considered as a contributory factor, which promoted inter-regional disparities in development before the formation of the state of Kerala.

A remarkable feature in the pattern of agricultural development in Kerala, witnessed since early 1970s is the shift in the cropping pattern favouring non-food crops especially coconut and rubber. The diversification in cropping pattern was not peculiar to any particular district and has been observed in all the districts of the
state. The process of structural and geographic diffusion has been more in the case of rubber crop, which shows even a tendency towards homestead farming. The plantation sector is the most vibrant sub sector within the agriculture sector of Kerala in terms of growth in area, production and income generated. It is generally accepted that development within any sector will not remain confined to it but will lead to development in other sectors. If plantations were viable in promoting regional development before the formation of the state of Kerala, what role does it play in determining the present pattern of development of the various districts? The present study is an attempt to find out the interrelationship between plantation sector and regional development within the state of Kerala. In the process, an attempt is also made to find out whether the geographical spread of plantation crops especially rubber has mitigated inter-regional inequalities in development witnessed at the time of state formation.

Significance of the study

All major studies on plantation development in Kerala (Umadevi, 1984, Paul Baak, 1997, Ravi Raman, 1997) have stressed the negative impact of plantations. They treat plantations as a mode of exploitation used by the imperialist powers for surplus extraction. Plantations were shown to be the generator of socio-economic inequality and a block to the development of the peasantry and
creation of a domestic market. The present study deviates from the above pattern and makes an attempt to identify the development impulses generated in the socio-economic sphere of Travancore region as a result of the growth of plantations. Since the study is carried on in a comparative mode between the Travancore - Cochin regions and the Malabar region, the inter-regional inequalities in the pattern of development, which existed before the formation of the state is brought to the focus. The study highlights the persistence of inter-regional inequalities in development even after four and a half decades of planned development in the state. The aggregate regional development of each district in the state is analysed on the basis of the sectoral development and an attempt is made to find out whether there exists any correlation between plantation sector development and regional development.

Objectives

The broad objectives of the study are:

(1) To analyse the growth and structural pattern of plantation sector as a part of commercialization of agriculture in Kerala.

(2) To examine the diversification of plantation sector growth at regional level over a period of time with a special focus on the growth in area, production, productivity, variability and value of plantation crops.
To examine the association between the commodity producing sectors and the growth of the plantation sector at the district level in Kerala.

(4) To assess the association between service sector development and the plantation sector at the district level in Kerala.

(5) To examine the relationship between aggregate regional development and the development of plantation sector at the district level in Kerala.

Hypothesis

The study sets forth the following two hypothesis

(1) The commercialization of agriculture, particularly the growth of the plantation sector, has a very significant impact on the economic development of Kerala.

(2) There is a close link existing between the growth of the plantation sector and regional development in Kerala.

Methodology

The study covers two distinct phases of the evolution of the economy of Kerala. The period preceding the year 1956, which is the year of the formation of the state, is termed ‘before state formation’ and the succeeding period is referred to as ‘after state formation’. To trace the pace of economic change before state
formation an attempt was made to piece together the fragmentary evidences available in the literature on colonial history of Kerala. The differential pattern of agricultural development, which prevailed in the first half of the 20th century, sets the background for the study. The inter-regional inequalities in development which existed before state formation is seen against this analytical framework.

Taking into consideration the diverse nature of crops grown, the agrarian scenario after state formation is analysed in terms of food grains, garden crops and plantation crops. A district level analysis of the growth rate in area, production and productivity of major crops cultivated in the state viz. paddy, coconut, rubber, tapioca, cashew and pepper is carried out on an inter-temporal basis. An in-depth analysis of the growth of the plantation sector in terms of area, production, productivity, variability and value of plantation crops is made to trace the pattern of plantation sector development. Though a number of commercial crops are grown in the state only four of them merit being termed as plantation crops. Hence only natural rubber, tea, coffee and cardamom are considered in the present analysis. The 'Ranking method' is used to rank the districts on the basis of area under plantation crops and value of plantation crops. Since rubber occupies the pride of place in the plantation economy of the state, the fluctuations in rubber production is decomposed into yield effect, area effect and interaction effect, and analysed at the district and state level. The statistical technique of 'Coefficient of Variation' is used to study the variability in area,
production and productivity of plantation crops. The value of plantation crops is ascertained by multiplying the physical volume of output with the average prices prevailing in the year.

Traditionally, per capita income estimates were considered to be the sole indicator to differentiate developed regions from underdeveloped regions. Today, it is widely accepted that development is a multi-dimensional phenomenon and analysis based on a single indicator does not provide a comprehensive picture of the economy. Hence a composite index, which takes into account varying levels of influence of large number of factors with provisions for scientific weightage to each factor, is required for analysis. To achieve this end, the 'Principal Component Method of Factor Analysis' (Koutsoyiannis, 1979) is used in the study. The Principal components (PC's) are a new set of artificial variables formed from a linear combination of standardized original variables (Zi's). The standard form of Principal Component (Pi) is as follows.

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Pi = \sum_{i=1}^{n} ali \cdot Zi
$$

Where $Pi =$ Principal components 1, 2, ....n

$ali =$ Factor loadings of the variable ‘i’ in the first principal component. It is derived as average value of inter correlation between values.

$Zi =$ Standardised value of the variables $X_1$, $X_2$, ....... $X_n$. 
The factor loadings are chosen so that the constructed principal components satisfy two conditions: (a) the Principal components are uncorrelated and (b) the first principal component ($P_1$) absorbs and accounts for the maximum possible proportion of the total variation in the set of all $X$'s, the second principal component ($P_2$) absorbs the maximum of the remaining variation in the $X$'s (after allowing for the variation accounted for by the first principal component) and so on. The sum of the squares of the loadings of each principal component is called the latent root or eigen value of the component. By the design of the method, the first principal component $P_1$ has a higher latent root than the second; the second principal component $P_2$ has a higher latent root than the third, and so on.

The maximum number of principal components is the number of the $X$'s. However, usually a small number of principal components are retained in the analysis. Though there are various standard criteria for deciding the number of principal components, in the present study, Kaiser's criterion, which suggests that only those principal components having latent root greater than one should be retained in the analysis, is adopted. The retained principal components together explain more than sixty percent of the total variation.
Several tests have been suggested for assessing the significance of the loadings appearing in the principal components. The test based on the levels of significance of the Pearsonian Correlation Coefficient is adopted in the study. Since the total number of districts in the state is 14, the sample size is taken as 15 (Koutsoyiannis, 1979). A loading is significant at 5% level if its value is greater than $\pm 0.483$ and at the 1% level if its value is greater than $\pm 0.605$.

The principal component analysis provides a development score of each of the factors for various regions. On the basis of the scores obtained by the districts, clustering has been done by taking the value of mean and standard deviation of score values obtained. Accordingly, all districts are grouped into four categories, Backward - B (values having less that mean value), moderately developed-MD (Values between mean value and mean value plus one standard deviation), developed-D (between mean value plus one standard deviation and mean value plus two standard deviation) and highly developed HD (above mean plus two standard deviation). The districts are also ranked on the basis of the development scores obtained, by taking the highest value as one, which indicates its position in aggregate level of development, among the districts of the state.
‘Spearman’s Rank Correlation Coefficient’ is used to find out the relationship between ranks obtained by the districts in terms of area under plantation crops and aggregate level of development and also between ranks obtained by the districts in terms of value of plantation crops and aggregate level of development.

The inequality in the size of holdings and distribution of income is analysed by using the measure of ‘Gini Coefficient’ (Nagar and Das, 1988). Gini coefficient is an aggregate inequality measure and can vary anywhere from zero (perfect equality) to one (perfect inequality).

Sources of Data

The study relies heavily on secondary data. Census Reports, State Administration Reports, Government Gazetteers and Publications of the Department of Economics and statistics, the State Planning Board and the Office of the Registrar of Co-operative Societies forms the data base for the study. The various published and unpublished data existing in the relevant literature provided supplementary source of data.

A random sample survey consisting of 100 planter households in Iritty region of Kannur district was conducted to study the socio-economic status of the planting community. But, for brevity, the results are not fully incorporated in the present study.
Scope

The study considers the impact of plantations on regional development in the state of Kerala, which is situated in the south-west corner of the Indian sub-continent. Kerala state was formed on November 1st, 1956 as a result of the amalgamation of the three Malayalam speaking regions- Travancore, Cochin and Malabar. Travancore and Cochin were princely states before Indian Independence and Malabar was a district of Madras Presidency in British India. At present there are fourteen districts in the state. The southern districts - Thiruvananthapuram, Kollam, Pathanamthitta, Alappuzha, Kottayam, Idukki, Ernakulam and Thrissur are the districts, which belong to the erstwhile Travancore - Cochin region. All other districts - Palakkad, Malappuram, Kozhikode, Wayanad, Kannur and Kazaragode are the districts included in the former Malabar region. In the analysis before state formation, region refers to Travancore, Cochin and Malabar. After state formation, the district is considered as the region.

The study covers the time period 1901 to 2001. The non-availability of comparable data has resulted in some gaps in analysis. The analysis after state formation has been restricted to the thirty-year period from 1970-71 to 2000-01.
Chapterisation

After introducing the topic in the first chapter, the relevant literature in the field is reviewed in the second chapter. The third chapter presents the theoretical framework for the study. With a view to provide a historical background for the study, the fourth chapter highlights the inter-regional differences in agrarian development before state formation. The fifth chapter analyses the present agricultural scenario of the state with a special emphasis on the growth of the plantation sector. The sixth and seventh chapters quantitatively analyses the inter-regional variations in the development of commodity producing sectors and service sector respectively. The interrelationship between plantation sector and regional development is the primary concern of the eighth chapter. The concluding observations are given in the final chapter.

Limitations

The study has two main limitations. Firstly, the study has been carried on at a macro level where 'region' pertains to a district. The non-availability of comparable data at village level was a serious obstacle, which prevented a micro-level study on the topic. Secondly, the reorganization of the districts was completed in the state only by the year 1985. This has resulted in a few gaps in analysis.
References


