

KERALA'S AGRICULTURE: PERFORMANCE AND CHALLENGES

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Abstract

The present paper is an analytical study which discusses the achievements and challenges of Kerala's agriculture. Agriculture is the backbone for the survival of any community. Many scholars of international development regard the experience of the state of Kerala in India as distinctive and extraordinary. The state of Kerala is first in the country in human development index, literacy rate and sex ratio. Kerala's agriculture sector is unique in several ways. Agriculture and allied sectors are the most crucial sectors of the Kerala Economy as they provide livelihood to approximately two-third of the population and contribute a fourth of the SDP. Recent trend shows that trade liberalization followed by globalization adversely affected the agriculture sector of Kerala. This would have far reaching implications for Kerala agriculture and thereby for the rural population, their food security, employment and poverty etc.

Keywords: Agriculture, Kerala, Globalization, Farmer's suicide, Agricultural production

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Introduction

A country without sound agricultural system may not be capable of producing adequate food materials and other crops. Unlike the developed countries where agriculture is a business, in the developing countries agriculture is, to a great extent, a means of t' livelihood and part of a way of life. India continues to be predominantly an agrarian and rural economy in terms of her population and work force even after more than five decades of independence. About seventy per cent of the Indian populations still live in rural areas and nearly sixty five per cent of the total work forces are even now engaged in agricultural and allied activities. In the New Economic Policy under the WTO-regime Indian agriculture is getting integrated to global agricultural business. This would have far reaching implications for Indian agriculture and thereby for the rural population, their food .security, employment and poverty etc.

In India the Kerala's agriculture sector is unique in several ways. Some of the special features of the state agriculture are, a highly fragmented and small size of holdings except in the plantation sector, homestead farming with mixed crops yielding high income, large area under commercial crops, mostly the crops are export oriented, hired labour intensive cultivation and higher indebtedness of farmers. In spite of significant advances in industrial and service sectors, agriculture continues to be the largest provider of employment and livelihood both at the national and state levels. The decline in the agriculture yield and the demand for workforce in the oil economies attracted large scale migration of people from Kerala. The 'blue collar migration' and the consequent availability of surplus income again jeopardized the state's rice fields by ushering people towards 'white collar' jobs. Production of most of the crops was satisfactory till the mid 1990s and after that there was a setback to the agriculture sector. The reasons for decline in production and productivity are; ecological degradation, decline in soil fertility, following excessive use of fertilizers and pesticides, aged plantation sector and pest attack. There was also a considerable decline in public investment in the agriculture sector.

Agricultural Performance in Kerala

Kerala is one of the smallest states in the Indian union. Its area 38,863 square kilometers is just 1 percent of the total area of India. Kerala, the State with network of azure backwaters, rivers and streams, boasts of an agrarian economy. The abundance of water due to the 34 lakes and other

small streamlets, innumerable backwaters and water bodies and 44 rain-fed rivers flowing over the terrain of the state and also the adequate annual rainfall of 3000mm received by this state probably facilitates agriculture to a great extent and hence the economy of the state is dominated by agriculture. The most essential or the staple crop is the *rice or paddy*. About 600 varieties of rice are grown in the sprawling paddy fields of Kerala. In fact the Kuttanad region of the district of Kerala is known as the 'rice bowl of the state' and enjoys a significant status in the production of rice.

Rice, which is the principal food crop of Kerala, has been subject to persistent pressure for replacement by more remunerative crops during the last two decades. The production of rice touched its peak of around 14 lakh tonnes in the mid seventies. However this was not sufficient to meet 50 per cent of the state's requirements. Area under paddy has declined from its peak coverage of 8.81 lakh ha in mid-seventies to 4.31 lakh ha in 1996-97. This was mainly due to the enormous pressure exerted by high-value crops like coconut, banana, pineapple etc. Next to rice is Tapioca and is cultivated mainly in the drier regions. Tapioca is a major food of the Keralites. Besides production of the main crop, Kerala is also a major producer of spices that form the cash crops of the state. Kerala produces 96% of the country's national output of pepper. The important spices are cardamom, cinnamon, clove, turmeric, nutmeg and vanilla.

Other cash crops that constitute the agricultural sector include tea, coffee, cashew, pulses, areca nut, ginger and coconut. In fact coconut provides the principal source of income in Kerala- from coir industry to coconut shell artifacts. India is the third largest country in terms of global area and production after Philippines and Indonesia. Kerala was traditionally a coconut growing area along with the coastal States of Karnataka, Tamil Nadu and Andhra Pradesh and 1985-86 the total increase in area was 11.8 thousand hectares (1.7 per cent growth), between 1985-86 and 1995-96 total increase in area was 209.6 thousand hectares (29.7 per cent growth) and between 1995-96 and 2004-05 the decline in area was noted to be -16.3 thousand hectares (1.8 per cent decline). The maximum growth in area happened between 1985-86 and 1995-96. The substantial increase of coconut area in Kerala occurred due to substitution of paddy area by coconut. Cashew is also an essential cash crop. Kerala also accounts for 91% of natural rubber production of the country. Kottayam district has extensive areas producing and processing rubber. Natural Rubber cultivation in India has been traditionally concentrated in Kerala and to some extent in

the adjoining states of Karnataka and Tamil Nadu. The agro- climatic conditions in the state were very favourable for rubber cultivation. Kerala accounts for 83 per cent of the area under rubber in the country. Kerala has near monopoly in natural rubber as it produces 92 per cent of the natural rubber in India from 88 per cent of the area. During Eighth Plan nearly 30,000 hectares were brought additionally under rubber. Out of 574 thousand hectares in India, Kerala occupied 478 thousand hectares (83.23 per cent). Apart from rubber, other plantation crop likes plantains or bananas are also grown in plenty.

The provisional estimate of agricultural income of the state recorded a negative growth of 1.79% percent during 2009-10. Pepper is one of the most ancient and traditional crops of Kerala whose origin is traced to be the natural evergreen forests of the Western Ghats. Black pepper, which is considered as the king of spices, has played an important role in Kerala economy for a number of centuries. Kerala has near monopoly of area and production of pepper in India with about 95 per cent coverage of all India area. Like coconut area under pepper showed an increasing trend. The domestic price of pepper shows an upward trend from the mid of twenties and reached to 418.58 per kg in October 2012 and further declined in 378.04 per kg. in February 2013. In 1974-75 areas under cashew nut was about 104.9 thousand hectares, which increased slowly and reached 137.7 thousand hectares in 1985-86. After that it showed a declining trend and reached 86.1 thousand hectares in 2004-05. Banana and plantains, which together occupied 50 thousand hectares in 1974-75, reached 71 thousand hectares in 1980-81 and in 2004-05 it reached 110 thousand hectares. In the analysis, which began in the year 1974-75 the share of banana and plantains, was only 1.7 per cent (ninth position in area) raised to 3.7 per cent in 2004-05 stood in fifth position area wise. Against the total area of 5.11 lakh hectares under tea in the country Kerala accounts for only 0.37 lakh hectares.

Tea plantations owned by big companies employ a labour force of over 84,000 in the organized sector. Of late, small plantations of tea have started emerging in Idukki and Wayanad Districts. Area under coffee increased from a growth in the share from 1.33 to 2.84 per cent between 1974-75 and 2004-05. Actual area increased from 40 thousand hectares to 85 thousand hectares. The area under coffee in Kerala was 0.846 lakh hectares out of 3.28 lakh hectares in the country during 2004-05, which works out to be 26 per cent. The major variety grown in Kerala is Robusta with a share of 95 per cent in planted area. Area under coffee registered substantial

increase during the last two decades with an annual growth of over 2 per cent. Coffee provides opportunities for livelihood to nearly one-lakh families including agricultural labourers. In Kerala coffee is also one of the smallholder plantation crops with nearly 76,000 holdings coming under the category with an average size of 1.1 hectares. In Kerala the cultivation of coffee is concentrated in Idukki, Palakkad and Wayanad districts. In the case of ginger although production increased the relative contribution declined from 65.68 to 16.11 per cent. This is because of the significant expansion in area in other states due to high prices. In seventies the share was 0.38 per cent rose to 0.48 per cent in eighties slightly declined to 0.43 per cent in nineties and in 2004-05 it is only 0.30 per cent of the total cropped area. A notable feature of Kerala's agriculture is the predominance of cash crops like coconut, pepper, cardamom, ginger, cashew, arecanut, coffee and tea.

Table 1
Area of Principal Crops

SL No.	Crops	Area (Ha)							
		2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
1	Rice	289974	275742	263529	228937.6	234265	234013	213187	208160
2	Pulses	263529	263529	263529	4478	3943	4449	3824	3668
3	Pepper	237669	237998	226094	215154	175808	171489	172182	85335
4	Ginger	9991	12226	11082	7308	5578	5408	6088	6908
5	Turmeric	2881	3384	3917	3167	2754	2438	2391	2970
6	Cardamom	41378	41367	41362	39763	41588	41593	41242	41600
7	Arecanut	107572	108590	102078	100731	96745	99219	99834	104548
8	Banana	58866	61400	59143	56489	53516	51275	58671	59069
9	Other Plantains	54612	55222	53060	49803	49499	47800	49129	48747
10	Cashewnut	81547	78285	70461	58183	52875	48972	43848	54052

11	Tapioca	88486	90539	87128	83336	87278	74856	72284	74498
12	Coconut	899267	897833	870939	802330	780500	778619	770473	820867
13	Coffee	84644	84644	84571	84115	84696	84796	84931	84413
14	Tea	35040	35043	35364	36236	36557	36840	36965	37028
15	Rubber	480661	494400	502240	512045	517475	525408	534230	539565

Source: Government of Kerala, Economic Review, Various Years, Kerala State Planning Board, Trivandrum.

The role played by technological progress in agriculture could be examined in terms of the contribution of irrigation, fertilizers, pesticides, high yielding varieties, improved cultural practices, and the use of modern agricultural implements like tractors. It is the technological progress that leads to the higher productivity. Of course, institutional factors such as effective land reforms also are believed to contribute to higher productivity.

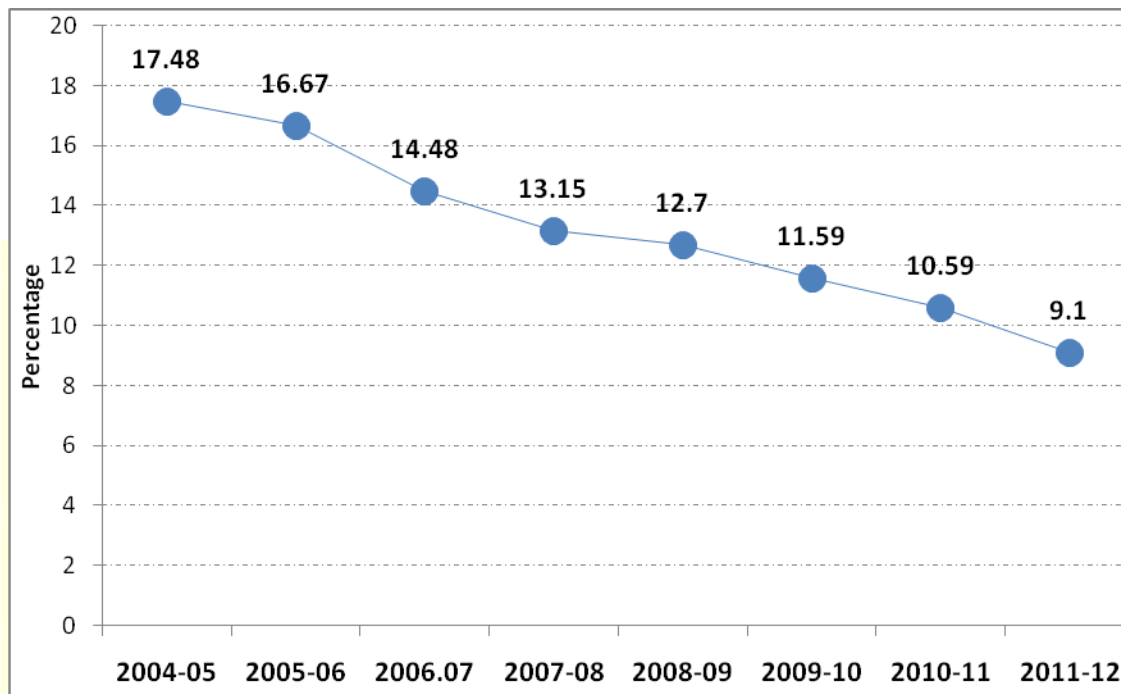
Problems of Agriculture in Kerala

1. Decline in Agricultural Production

Agriculture in Kerala is passing through a crisis, which the state has never experienced since the formation of the state in 1956. Progressive land reform policies of erstwhile communist provided Kerala a unique model for social transformation and agriculture development. But none of these steps enabled to uplift Kerala agriculture from the deplorable stage. Declining profitability of crops, shortage of farm labourers, abnormal increases in land prices and high rate of conversion of agricultural land for other uses are the major problems in the state's agricultural sector. The agriculture in Kerala has undergone significant structural changes in the form of decline in share of GSDP from 26.9 Percent in 1990-91 to 9.1 percent in 2011-12, indicating a shift from the agrarian economy towards a service sector dominated economy. The annual growth rate of agricultural income and share of agricultural GSDP for the last five years are shown in Figure 1.

Figure 1

Annual Growth Rate in Agricultural Income and Share of Agricultural GSDP in Kerala



Source: Directorate of Economics and Statistics, Government of Kerala

2. Shortage of Farm Labourers

In spite of the substantial increase in wage rates, the gap between demand and supply in the agricultural labour market has been widening in recent years. Growing deficiency in the supply of farm labourers can be attributed to many factors. First the widespread implementation of various poverty alleviation programmes like IRDP, JRY, TRYSEM and DWCRA in the state has rendered substantial employment opportunities to the rural people outside the farm sector. Secondly many small scale and auxiliary industrial units are sprouting in rural and semi-urban areas throughout the state and the rural people largely meet their labour requirements. Thirdly the hectic construction work going on in and around rural areas and the fast growing tertiary sector absorb a major portion of the new generation of rural labourers. Fourthly, the large scale migration of rural youth to foreign countries and to other states has also reduced the supply of farm labourers within the state. Finally the slow pace of mechanization in the farm sector and the growing dislike of rural youth to take up farm labour as their full-time occupation have worsened the labour shortage problem in the agricultural sector.

3. Conversion of Agricultural Land for other uses

In the neo liberal era, with the increasing demand for land for construction activities and for urbanization, paddy land became the first target of demand for non agricultural uses on account of its relatively cheapness. With the growing pressure of population and development of the secondary and tertiary sectors, agricultural land throughout the state is being converted for the construction of residential buildings, commercial establishments, roads, health and educational institutions etc. and that in turn reduces the total area under cultivation.

The poor achievements in agricultural research, drawbacks in the formulation and implementation of agricultural development programmes, environmental degradation, poor social management, inadequate plant protection measures etc have played their own roles in bringing down the pace of agricultural development in the state. Again in Kerala prices of land under food crops like paddy and tapioca are found to be relatively lower than the prices of land under cash crops. Thus the mere conversion of land from the cultivation of food crops to cash crops in itself enhances the property value. The comparatively lower prices of land under food crops leads to its widespread conversion for non-agricultural uses. Changes in land use pattern can also be attributed to the growing number of absentee landowners in the state. Since the food crops need more care and personal supervision than cash crops, these absentee landowners are more inclined to cultivate the latter which tends to the decline of area under food crops.

4. Low Profitability

Rapid increase in the daily wages of farm labourers and fertiliser prices, along with relatively lower growth rates in the farm prices of agricultural products in the absence of any major improvement in farm technology have adversely affected the profitability of crops. Within the last 15 years from 1986, indices of the cost of cultivation of crops and prices paid by farmers in the state have increased. The index of prices received by farmers demonstrate a relatively lower growth rate.

5. Abnormal Increase in Land Prices

Agricultural land prices are so high in Kerala that if interest on land value is added to the paid out costs of cultivation, none of the major crops cultivated in the state is economically viable. Thus land is not always treated as a means of production in the state but is often regarded as an asset that can be used for speculative exchange. Therefore many speculative investors without

any genuine interest in farming have already entered the land market as buyers. Again as land is a safe asset with fair liquidity, a considerable portion of foreign remittances coming in to the state every year is used for the purchase of land, which leads to a sustained increase in its prices. Thus it can be seen that agricultural lands have been converted into real estate investments because of the following reasons. Agricultural land is the most popular of tax planning devices used for laundering black money since agricultural income is exempted from income tax. However, under the Kerala Agricultural Income Tax Act, agricultural income is taxable. Value of agricultural land has been continuously rising in most parts of Kerala as has been the case in other states of India also. Because of the various tax advantages and also due to the prospects of capital appreciation, agricultural land has become an important investment area. Over the years cost of agricultural inputs like seeds, fertilisers, pesticides, labour, tractors etc. have gone up considerably. Un remunerative market prices coupled with the high cost of inputs make farming an uneconomic proposition in many cases.

Farmers in Kerala are passing through serious economic hardships, as they are unable to sell their various farm produces at reasonable costs. Middlemen strongly control and dictate the market of agricultural produces. A producer farmer does not get his share of the selling cost of the produce. Very often he is forced to make distress sale. These produces are invariably sold at very high cost and the middlemen are pocketing a large share. The farmers are denied opportunity to intervene in the market and do not have the bargaining power. The production of various produces food grains, vegetables, cash crops in Kerala are dwindling alarmingly. The purchasing capacity of the farmer is fast declining which is indeed a threat to the livelihood security of large section of farmers. Many of the government sponsored schemes and programmes implemented so far have not redressed the farmers grievances effectively. Many farmers abandoned agriculture due to high labour costs and poor economic returns. The chain of suicide of debt-distressed farmers in the primarily agricultural districts are clearly sympathetic of the extreme privation of the small and marginal farmers of Kerala. The farmers who committed suicide in the last two days are from Wayanad, Kannur and Palakkad in north Kerala. The construction spree that followed the gulf boom drastically changed the agrarian scenario of Kerala. Already, during the last three decades, the agrarian landscape gave way for cash crops. All these factors sidelined paddy cultivation.

Traditionally Palakkad and Alappuzha were considered as the *rice bowls* of Kerala state. In recent years the farmers in the two rice bowls of the state are in constant distress due to the low or no returns from rice cultivation. Paddy cultivation in Palakkad had shown an alarming decline. In 1970-71, paddy was cultivated in 1,82,621 hectares in the district but in 2011 it is reduced to 12,837 hectares.

Under the new situation not only the physical landscape changed but also the policies and priorities. However, during LDF regime of 2006- 2011, an attempt was made to revive paddy cultivation but it ended up with a marginal success only. Given this background, the younger and educated sections of Kerala are not interested to take up agriculture as an occupation. According to Gopa Kumar (2013), Crop less, Low price, shortage of labour, mobile radiation, climate change, high dosage of fertility shortage of water etc are the major agricultural problems today.

Impact of Globalization on Kerala Agriculture

The concept of globalization has become inextricably linked with the process of transformation touching upon every aspect of social, political and economic development in the globe. It can be seen as a process by which the population of the world is increasingly bonded into a single society. Globalization combined with liberalization has led to the decline of public investment in agriculture. In the pre-globalization period, the country's foodgrain production was 3.5% whereas in the post-globalization period it fell to 1.7%. One factor for this fall is reduction in subsidies given to farmers, which resulted in higher prices of the foodgrains in the market. Trade liberalization adversely affected the agriculture sector of Kerala. Because more than 80 per cent of the agricultural commodities produced in the state are depended on domestic or international market situation (GoK-2003). Production of most of the crops was satisfactory till the mid 1990s and after that there was a setback to the agriculture sector. The price of coconut, for instance, fell sharply with the reduction of import tariffs on the edible oils. The market for rubber, another major cash crop, crashed following large scale import of natural rubber.

Since Kerala's agricultural sector is highly trade intensive and the state is emerging as a consumerist state, WTA is likely to have tremendous implications for the state. On the one hand it will promote higher export if there is price competitiveness for Kerala's products. On the other hand, this would lead of rise in imports due to high degree of consumerism partly influenced by

external remittances and substantial remittances from rest of India. Certain adverse impacts on Kerala agricultural sector are higher price volatility. The period 1995-2005 has shown greater price volatility for Kerala's products as domestic prices were more sensitive to variations in international prices. Another consequence of the WTA was the decline in the degree of competitiveness of major products of Kerala's interest. Liberalization of foreign trade resulted in the sharp decline of commodity prices. As a result agricultural income of many farmers has declined. The fall in agricultural income coupled with the rise in cost of cultivation and cost of living have made a large number of farmers heavily indebted. In order to overcome this crisis, farmers in Kerala are now committing suicide. There were governmental and non-governmental initiatives in redressing the agrarian distress of the state. The people's campaign for the Ninth Five Year Plan accorded top most priority to agriculture and rural development. Some achievements could be attained in the promotion of vegetable cultivation, installation of agrarian infrastructure etc. Though the so called Kerala development plan maintained the local institution for planning, it failed to sustain the former spirit of people in the planning process and agrarian development.

Conclusion and Suggestion

The effect of globalization and liberalization was different for different regions, different crops and different classes of society and in different time periods. The agrarian crisis and farmers' distress in Kerala over the past one decade are closely linked to the neo-liberal policy regime implemented in the country in the recent past. The worst affected are the small farmers, as they are more vulnerable to crop losses and a price fall. Kerala's agriculture sector was unique in several ways. There was a sharp decline in export of agricultural commodities during the post reforms period due to price volatility at international market. Recent trends suggest that the agricultural sector in the state has entered a state of alarming decline. There was also a considerable decline in public investment in the agriculture sector. No serious discussions had been held so far for finding an alternative to the crisis set to loom large over the agriculture sector. The following suggestion can be considered for solving current agricultural crisis in the state.

- The poor farmers should be protected with subsidies and loans, at least to the subsistence level.

- Supply of food grains at subsidized prices through PDS is to be continued and further streamlined.
- The government must take up mass public employment programs through the public sector, where the interests of the farmers and weaker sections can be protected.
- To ensure that the cultivators get enough compensation in case of crop loss due to disasters like flood, draught, diseases etc.
- The dignity of agriculture as a profession should be upheld
- Organic cultivation
- Deliberate attempt is needed for large-scale investment in agriculture sector, which prevents cultivators to avail loans from private moneylenders.
- Security Scheme is essential for ensuring livelihood security, which should take care of expenses up to a ceiling for hospitalization in case of illness of a family member, maternity, life insurance and old age pension.



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