



GOVERNMENT OF KERALA

AN ANALYTICAL STUDY ON AGRICULTURE IN KERALA

WITH CHANGES IN AREA AND PRODUCTION FROM 1955-56
& SCHEMES IMPLEMENTED FROM 2005-06 TO 2014-15



MONITORING & EVALUATION DIVISION
DIRECTORATE OF AGRICULTURE
THIRUVANANTHAPURAM



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JANUARY 2016

MONITORING & EVALUATION DIVISION
DIRECTORATE OF AGRICULTURE
THIRUVANANTHAPURAM



K. P. MOHANAN

Minister for Agriculture, Animal Husbandry,
Printing and Stationery



05.01.2016

Date :



MESSAGE

It is a matter of great pleasure to know that the Department of Agriculture is bringing out a new report on agriculture analyzing the growth in crop production and plan performance during the last ten years in Kerala. I am sure, this Comprehensive report which gives an insight into the forthcoming programmes and policies on Agriculture will be a worthy reference to Planners, Administrators, Policy makers and research aspirants for making right decision on crop husbandry and marketing of agricultural produces.

I appreciate the concern of the department functionaries towards the overall development of agriculture of our State, especially in the area of vegetable development.

I also place on record my appreciation to all behind this endeavour.

Wishing all a very happy and prosperous New Year.

K. P. MOHANAN



SUBRATA BISWAS, IAS
ADDITIONAL CHIEF SECRETARY



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04-01-2016

MESSAGE

I am very happy to learn that the Monitoring & Evaluation Division in the Directorate of Agriculture, Vikas Bhavan, Thiruvananthapuram is bringing out 'An Analytical Study of Agriculture in Kerala'. This publication is a comprehensive review of the agricultural situation in the State by analyzing the area, production, GDP, cost of cultivation, price, plan performance etc during the last ten years.

I am confident that this report will serve as a valuable reference to a wide spectrum of data users and planners.

I wish this endeavor all success.

SUBRATA BISWAS IAS



K.S. ANIL KUMAR
Additional Secretary (Secretary i/c)

**AGRICULTURE DEPARTMENT
GOVERNMENT SECRETARIAT
THIRUVANANTHAPURAM**



04-01-2016

MESSAGE

Kerala is a forerunner in production of quality spices and plantation crops. This report which is an analytical study on the agricultural status of the State during the last ten years throws light on the changes happened during the period in a clear and comprehensive manner.

I am certain that this analytical study report will be a valuable guide to policy makers and research scholars throughout India.

(K.S. ANIL KUMAR)



R. AJITH KUMAR
DIRECTOR OF AGRICULTURE



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04-01-2016

PREFACE

The agricultural sector plays a significant role in State economy by contributing 11 percent in GDP. Though the share of GDP in agricultural sector shows a declining trend, the GDP value is increasing. During the year of formation of the State of Kerala, this sector contributed more than 50 percent of the total GDP and was the leading source of income of the people. This publication 'An Analytical Study on Agriculture in Kerala' compiled by Monitoring & Evaluation Division of the Department of Agriculture presents a comprehensive picture of the progress made by the agriculture sector at State level. The area, production and productivity of crops, cost of cultivation and pattern of consumption of food by Keralites are analysed in this report. Effort has also been made to analyse the change in crop production from 1950s till recent years. The performance of plan schemes implemented by the Department of Agriculture during the last 10 years is also analysed in this report.

This report is prepared under the supervision of Sri. D.S. Shibukumar, Deputy Director (Statistics) with the support of Smt. Pauline Lina Edwin, Assistant Director of Agriculture, Smt. Soni S.C., Research Officer, Sri. Asokakumar K.V., Research Assistant, Sri. Babu P., Research Assistant and Sri. Abhin Raj R., Statistical Assistant Grade I in the Monitoring & Evaluation Division of the Directorate. The earnest support rendered by the staff of the Planning section and other sections in the Directorate is gratefully acknowledged.

I hope this report will be a worthy reference to planners, administrators, policy makers and research aspirants for making right decision on crop husbandry and marketing of agricultural produces.

R. AJITH KUMAR

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Chapter 1

INTRODUCTION

1.1 Agriculture scenario in Kerala

The State is the first in the country in human development index, literacy rate and sex ratio. In recent years, the State is going ahead as a potential destination for ecotourism, information technology etc. However the predominantly agro based rural economy drags back the State economy. The State's agriculture sector (including livestock) contributes only 10.88% of the total GDP (at current prices in 2013-14) compared to 34.2% in Madhya Pradesh, 29.3% in Utter Pradesh and Rajasthan and 27.4% in Punjab. Poor return and high labour cost has forced many of the growers to keep away from agriculture.

In 1955-56, agriculture was the main economic activity of Keralites and about 53.1 percent of the total working population was engaged in agriculture. The State has witnessed a remarkable transformation in agricultural sector since its formation in 1956. Cash crops like coconut, rubber, tea, coffee, pepper, cardamom, arecanut, ginger, nutmeg, cinnamon etc and food crops like paddy, tapioca gives the agricultural sector of Kerala a distinct flavor. The agro climatic conditions in the State suit for the cultivation of a variety of seasonal crops and perennial crops.

Kerala or Keralam got its name from 'kera' (coconut). For centuries, coconut trees and coconuts played a vital role in the everyday life and economy of Kerala. Although coconuts are cultivated in nearly 8.08 lakh hectares of land, constituting almost 39.4 percent of the state's net cropped area, there are very few large coconut plantations in the state. More than 95 percent of coconut trees in Kerala are grown in the front and back yards of homesteads.

Coconut palms grow almost everywhere in Kerala. In the low lands, coconut forms one of the main crops. The midlands and the slope of the high lands are also best suited for its cultivation. The seaboard, the shores of lagoons, backwaters and the banks of rivers are studded with coconut trees. Coconut cultivation is now extended to higher elevations such as in Idukki district. Coconut farming in Kerala is facing severe setback in recent years owing to fall in market price and low productivity due to pest and disease attacks. The rise in cost of cultivation and competition from other oils such as palm oil etc are other reasons affecting the production of coconut. Kerala's share in area of coconut farming in the country had declined from 69% in 1955-56 to 38% in 2013-14.

Paddy cultivation is the part and parcel of our culture and it is the State's major foodgrain crop. In the early years, paddy cultivation was the main agriculture activity in coastal and midland wet fields in Kerala and is also connected with the culture and festivals of Kerala. Despite these facts, the area and production of paddy in Kerala continues to decline over the years. The State has achieved 50 percent self-sufficiency in rice production in 1972-73. But the area and production of paddy has declined at an alarming rate in the later years. The gap between investment and production made the cultivators away from paddy cultivation, while the high job opportunity and alternative wages shifted the workforce to other lucrative construction works. The high remittance from abroad boosted the real estate and construction sectors in Kerala weaning away the land under paddy and other crops and labour force involved in cultivation and small land owners to real estate sector.

Kerala has wide network of rivers, rivulets and springs spread over the entire cropped area. Out of the net cropped area of the State, only 19 percent is irrigated. The net area irrigated has slightly increased from 3.93 lakh hectares during 2004-05 to 3.97 lakh hectares during 2013-14. Coconut is the major irrigated crop of the State which accounts for 35 percent of the gross irrigated area followed by paddy with 33%.

1.2 Agriculture scenario in India

Agriculture sector contributes Rs.1653802 crores in total GDP of India (at 2013-14 prices) and the share of this sector is 15.8%. At all India level, agriculture sector shows a growth rate of 16.67% in 2013-14 over the previous year. Thus this sector plays an important role in Indian economy. In addition to the GDP in primary sector, the value addition from agricultural produces contributes a major share of GDP in manufacturing sector.

In India, in 1950-51, the net cropped area was 118.75 million hectares and now (in 2011-12) it has increased to 140.80 million hectares. While the gross cropped area is increased from 131.89 million hectares to 195.25 million hectares. Thus the cropping intensity is increased from 111.07% to 138.67% during the above period.

The percapita net availability of total food grains in India during the year 1951 was 144.1 kg per year or 394.9 grams per day. Now in 2014, it has increased to 179.3 kg per year or 491.2 grams per day. By considering rice alone, the percapita availability of rice in the country is 58 kg per year or 158.9 grams per day during 1951 and 72.6 kg per year or 199.0 grams per day during 2014.

In the global food production scenario, India continues to maintain a major share and thus earn foreign exchange from the export of many agricultural produces and value added food products. India is the leading producer of rice and wheat after China in the whole world. The country has 21 percent share in global rice production and 14 percent in wheat production. Maize is another produce in which the country is in the 4th position in the world with 2.5 percent share. India occupies 19.6 percent

contribution in the world production of sugarcane after Brazil. India is also the second largest producer of vegetables, fruits, melons, tobacco, onions and groundnut. The country has 11.6 percent share in global production of groundnut, 11.7 percent in tobacco, 9.6 percent in vegetables and melons, 11.6 percent in fruits, 11.3 percent in potatoes and 17.4 percent in onion.

In India, during 1955-56, 31.52 million hectares of area is under paddy cultivation with 27.56 million tonnes of rice production. Now, as per 2013-14 data, this has increased to 43.95 million hectares of area with 106.54 million tonnes of production. During this period, the productivity has increased from 874 kg/ hectare to 2424 kg/ hectare. West Bengal is the leading producer of rice in India with 14.33 percent of all India production followed by UP with 13.8 percent. Kerala's contribution in rice production is 0.53%. Among the rice producing States, Punjab has the highest productivity of 3952 kg/ hectare followed by Haryana with 3256 kg/ hectare. Kerala's productivity is only 2837 kg/ hectare.

During the year 2013-14, India has exported 107.76 lakh tonnes of rice with a value of Rs.46793 Crores. Wheat is the 2nd major food grain commodity exported during the year 2013-14. The total exported quantity of wheat in 2013-14 is 55.6 lakh tonnes with a value of Rs.9257 Crores. Even though India has exported 10.29 lakh tonnes of spices (value Rs.15981 crores) during the year 2013-14, some other spices of 1.48 lakh tonnes (value Rs.3431 crores) were imported during the same year. The other major agricultural commodities imported to India (during the year 2013-14) are edible vegetable oils (104.34 lakh tonnes, Rs.56489 crores), pulses (30.49 lakh tonnes, Rs.10551 crores), raw cashew (7.71 lakh tonnes, 4564 crores) and sugar (8.81 lakh tonnes, 2287 crores).

1.3 Analytical study

The agricultural situation in the State during the last 10 years in terms of development in area, production, productivity, economy, changes happened during this period etc are analysed in this report through various chapters. The area and production share of the State in all India area and production of various crops are also mentioned in this report. Since paddy and coconut are the very important crops in Kerala, special emphasis is given on these two crops and separate chapters are provided in this report. So, the area, production and productivity of paddy and coconut from 1955-56 to 2013-14 of Kerala and all India are given as annexure of this report.

This report also contains an analysis on the performance in implementation of plan schemes of the Department of Agriculture during the last 10 years from 2005-06 to 2014-15. The scheme wise outlay of the State budget according to the amount earmarked in each Head of Account and its progress of achievement in

implementation up to 31st March of each year are compiled in this report. The scheme expenditure figures mentioned in this report are accounts figures published by State Finance Department. For the year 2014-15, since the accounts figures are not published yet, the department expenditure figures are provided. The basic data sources for this report are

1. Annual Plan documents of State Finance department
2. Annual accounts of State Finance department
3. Performance reports of the Department of Agriculture
4. Subject Committee Reports of Department of Agriculture
5. Economic review documents and other reports of State Planning Board
6. Reports published by the State Department of Economics & Statistics
7. Reports on socio economic surveys conducted by NSSO
8. Reports of Department of Agriculture & Cooperation, Govt of India
9. Reports of tea board, rubber board, coffee board etc available in their official websites

The first chapter of this report gives an introduction to agricultural situation in Kerala and the country. In chapter 2, an overview of the plan schemes implemented from 2005-06 to 2014-15 are analysed. The sectoral share and its growth during the period, growth in outlay and share of State and centrally sponsored schemes etc are also analysed here. In chapter 3, the gross domestic product from agricultural sector, its sectoral share, its changes over the period, comparison of Kerala with India etc are analysed. The overall situation of agriculture in Kerala in comparison with all India, cropping pattern, land use pattern, production changes during the period of last ten years etc are analysed in chapter number 4. A comparison of cropping pattern of Kerala in 1955-56 with 2014-15, comparison with all India, district level ranking position in area and production of various important crops etc are also mentioned in chapter 4.

In chapter 5, the crop production expense on various crops in the state during the period from 2004-05 to 2013-14 are analysed. The receipts and expenses in crop production of other states in India are also analysed in chapter 5. The growth in cost of cultivation and growth in farm price of various agricultural produces are also compared and analysed in this chapter. In chapter 6, the consumption pattern in rural and urban areas in the States based on the socio economic surveys conducted in the State during the past and the estimated requirement of rice and vegetables for the next 15 years for Kerala are analysed. In chapter 7, the development of paddy cultivation in Kerala is analysed. The schemes implemented on the aspect of developing rice production in Kerala and its financial and available physical achievements are also summarised in this chapter. The schemes related to the improvement of production and productivity of coconut implemented in the State during 2004-05 to 2013-14 and the area, production and productivity improvement of

coconut cultivation in comparison with other coconut producing States are explained in chapter 8.

Chapter number 9 gives the development of vegetables and fruits in Kerala during the last ten years, the schemes on development of horticultural crops implemented through the department of agriculture, VFPC, Horticorp, SHM are analysed. In chapter 10, the development of plantation crops and spices in the State and the schemes implemented on this aspect during the last ten years are analysed. The share of the State in the area under spices and plantation crops in the country and production share and its changes are analysed here. In chapter 11, the schemes implemented in Kerala for providing insurance support to crops, welfare of the farming community, debt relief etc are analysed. Chapter 12 gives the schemes implemented on improving the mechanisation in agriculture in Kerala and its performance are analysed. In chapter 13, the schemes related to extension and communication and other technology transfer to farmers and their performance are explained. Chapter 14 gives the details of schemes related to market development, establishment of storage and warehousing facilities for agricultural produces etc implemented during the above period. The plan schemes not covered in chapters 7 to 14 are covered in chapter 15. Since the schemes implemented in earlier periods but no budget outlay during the succeeding years, the available details are covered.

The data used for the analysis made in the above chapters are appended as Annexure at the end of this report. These contain scheme wise plan progress, cropped area, production and productivity, cost of cultivation, agricultural population, various prices such as farm wholesale price, farm retail price, market wholesale price etc of agricultural commodities, consumption of pesticides etc.

Chapter 2

PLAN PERFORMANCE- AN OVERVIEW

The performance of plan schemes implemented by the department of agriculture during the last ten years from 2005-06 to 2014-15 are analysed here. State plan schemes and centrally sponsored schemes are analysed separately. For scheme wise year wise budget outlay, revised budget outlay, expenditure and head of account during the above period, the annexures given at the end of this report may be referred.

2.1 State Plan schemes

The Department of Agriculture have implemented a total of 94 State plan schemes during the period from 2005-06 to 2014-05 ranging from 30 schemes (in 2005-06) to 49 (in 2011-2). The annual total outlay corresponding to these State sector schemes is ranging from 54 crores to 925 crores. An increasing trend is shown in the budget allocation in agricultural sector during the period of 10 years.

2.2 Centrally Sponsored schemes

During the period of 10 years, the total number of centrally sponsored schemes implemented by the department is 55, which ranges from 8 (in 2012-13) to the maximum of 23 (in 2005-06). In 2005-06, 16 numbers of macro management schemes under 90% central funding pattern have been implemented by the department. Central Government have reduced the scheme components year by year and finally withdrawn all the macro management schemes by 2013-14.

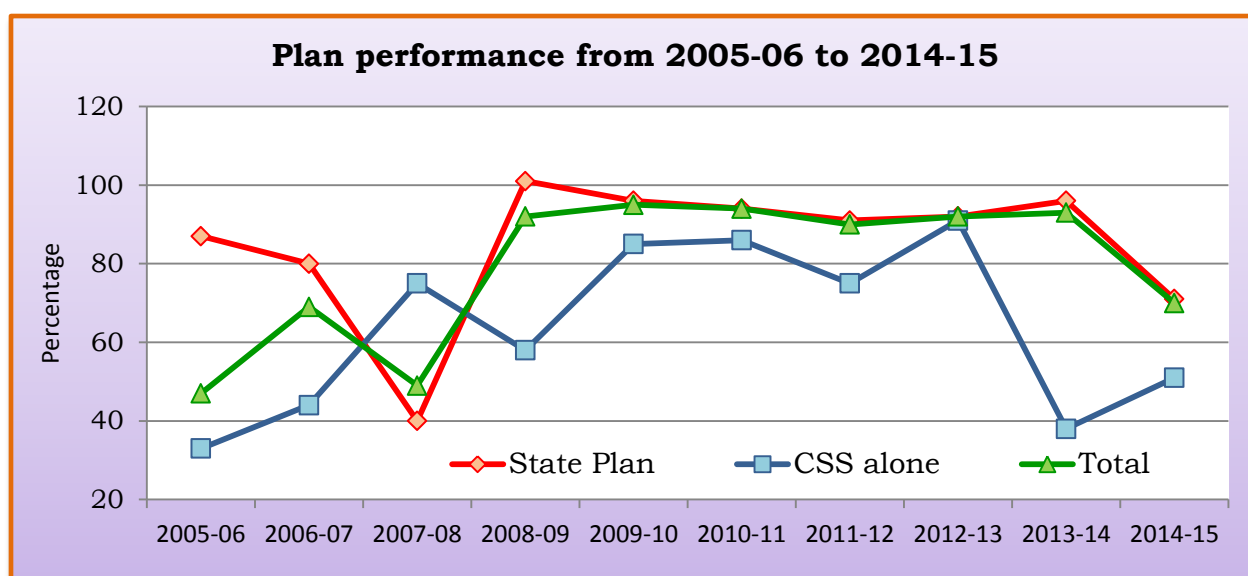
2.3 Original and Revised Budget Outlay

The following table shows the original budget outlay and revised budget outlay during the last 10 years as per the budget records of Finance department and the implementation records of Department of Agriculture. The state share and central share of centrally sponsored schemes are given separately. The state share of CSS is only for the CSS other than 100% centrally sponsored schemes.

Year	Original Outlay			Revised Outlay		
	State Plan	CSS		State Plan	CSS	
		Other CSS State share	Central Share		Other CSS State share	Central Share
2005-06	54.33	8.35	136.71	53.53	9.35	145.36
2006-07	152.44	7.11	82.07	250.01	6.26	100.82
2007-08	162.69	3.27	53.84	148.99	3.33	47.00
2008-09	143.20	4.00	59.09	198.09	3.77	46.84
2009-10	194.17	2.56	21.90	246.99	3.07	29.14
2010-11	283.22	2.56	24.60	305.07	2.58	22.52
2011-12	485.23	3.46	20.84	494.39	4.03	22.15
2012-13	685.74	3.00	20.65	698.98	3.00	20.15
2013-14	778.66	2.93	29.45	667.70	2.73	27.65
2014-15	924.52	0.30	18.00	972.17	1.30	63.48
Total for 10 years	3864.20	37.54	467.14	4035.92	39.41	525.10

2.4 Expenditure and Performance percentage

Regarding the performance of State Plan schemes, the utilization of fund was 100% in 2008-09 and least in 2007-08 with 40%. In the case of centrally sponsored schemes, the central fund utilization is maximum in 2012-13 (91%) and least in 2005-06 (33%). The overall fund utilization is maximum in 2009-10 with 95 percent and least in 2005-06 with 47 percent. The performance at a glance is depicted in the following trend chart.

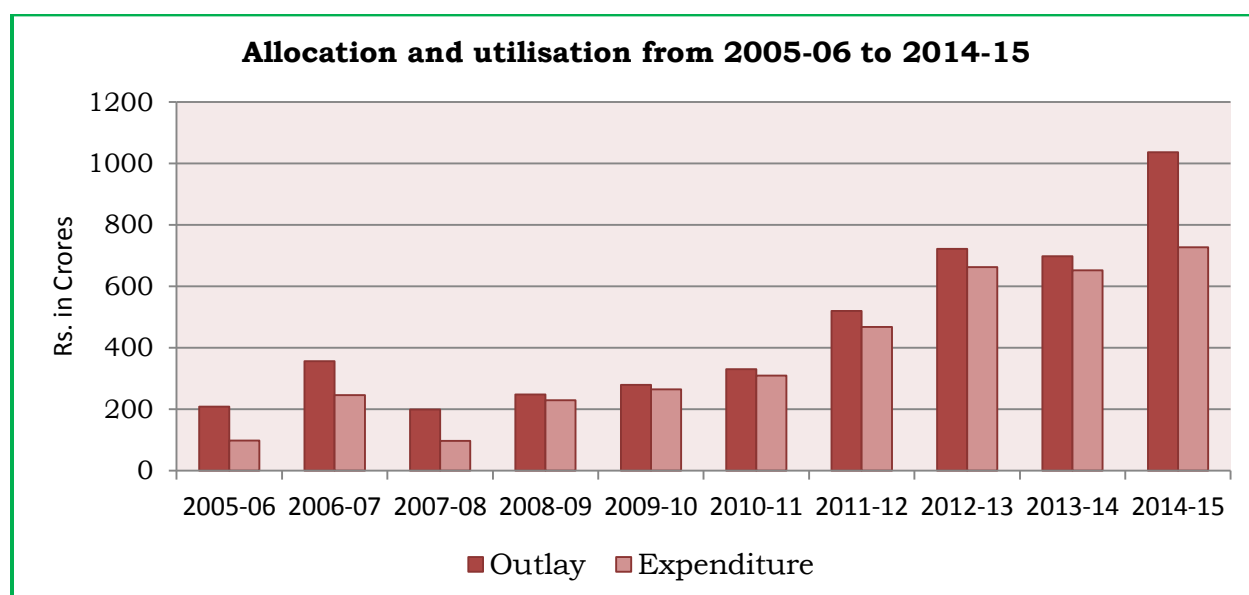


The following table shows the expenditure and its percentage values against the revised budget allocation over the years from 2005-06 to 2014-15. For the years from 2005-06 to 2013-14, the expenditure values are the accounts figures published by the Finance Department and for the year 2014-15, the expenditure is the provisional figures available in the records of the Department of Agriculture.

Rs. in Crores

Year	Expenditure			Percentage			
	State Plan	CSS		State Plan	CSS		Total
		Other CSS State share	Central Share		Other CSS State share	Central Share	
2005-06	46.51	4.22	47.26	87	45	33	47
2006-07	198.99	4.12	43.40	80	66	43	69
2007-08	59.32	2.73	35.06	40	82	75	49
2008-09	200.04	2.89	26.59	101	76	57	92
2009-10	237.52	2.52	24.74	96	82	85	95
2010-11	288.17	2.39	19.09	94	93	85	94
2011-12	448.47	3.12	16.55	91	77	75	90
2012-13	641.43	2.64	18.39	92	88	91	92
2013-14	640.40	0.89	10.67	96	32	39	93
2014-15	694.30	1.27	31.67	71	98	50	70
Total for 10 years	3455.16	26.78	273.42	86	68	52	82

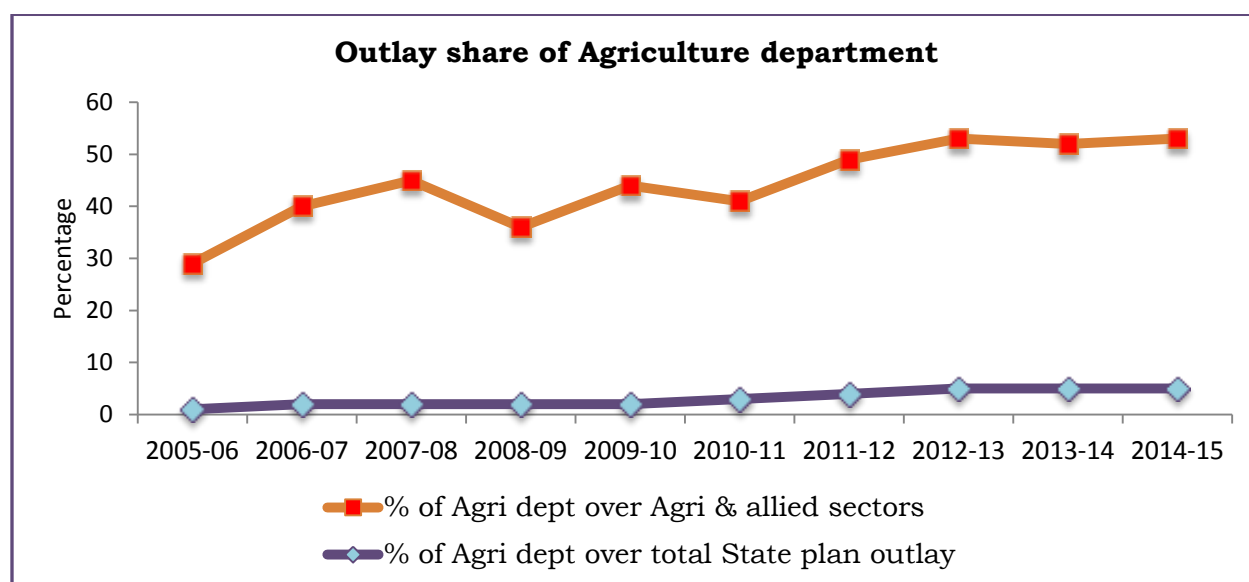
The total allocation of both State and Central plan schemes (based on revised budget outlay) during the last 10 years and its utilization (actual values) is depicted in the following bar chart.



2.5 Budget share of Agriculture Department

The plan outlay of the Department of Agriculture is provided under the subsectors 1.1 Agriculture and 1.8 Marketing storage and warehousing in the State budget. On analyzing the State plan budget allocation of Department of Agriculture and the sectoral outlay under agriculture and allied services for the period of last ten years from 2005-06 to 2014-15 we can see that the share of the department has been increased from 29% to 53%. This shows that more thrust has been given to the subsectors Agriculture (subsector 1.1) and Marketing storage and warehousing (subsector 1.8) rather than the other subsectors, viz Soil & water conservation (1.2), Animal husbandry (1.3), Dairy development (1.4), Fisheries (1.5), Forestry and wildlife (1.6) and Investments in agricultural financial institutions (1.7).

The trend chart showing the outlay share of Department of Agriculture over the agriculture and allied sector and total State budget during the period is shown below. Both show an increasing trend.



While considering the total State plan budget during the period, the budget share of the department has increased from 1% to 5%. The following table shows the above facts in detail.

Rs. in Crores

Year	Outlay of Agriculture Dept	Agri & allied sectors	Total State Plan outlay	% of Agri dept over Agri & allied sectors	% of Agri dept over total State plan outlay
2005-06	62.68	214.30	5370	29	1
2006-07	159.55	396.19	6681	40	2
2007-08	165.96	368.49	6950	45	2
2008-09	147.20	403.31	7700	36	2
2009-10	196.73	444.04	8920	44	2
2010-11	285.78	705.55	10025	41	3
2011-12	488.69	995.00	12010	49	4
2012-13	688.74	1288.47	14010	53	5
2013-14	781.59	1494.74	17000	52	5
2014-15	924.82	1730.63	20000	53	5
Total for 10 years	3901.74	8040.72	108666	49	4

Chapter 3

GDP FROM AGRICULTURE

3.1 Agricultural Economy of Kerala

In 1956-57, the share of agricultural products in Kerala was nearly 53 percent of the Net State Domestic Product (NSDP). The relative share of agriculture in state income was the lowest when compared with any State in the country while the relative share of service sector was the highest. During 1957-58, the percapita income from agriculture in Kerala was Rs.243 whereas it was only Rs.188 in all India. Now (at 2013-14 prices), the percapita income from agriculture in Kerala (based on GSDP) is Rs.12738 and in all India it is Rs.13228.

The Gross Domestic Product (GDP) from agriculture and allied sector consists of the following subsectors

1. Agriculture (including livestock and dairying)
2. Forestry and logging
3. Fishing

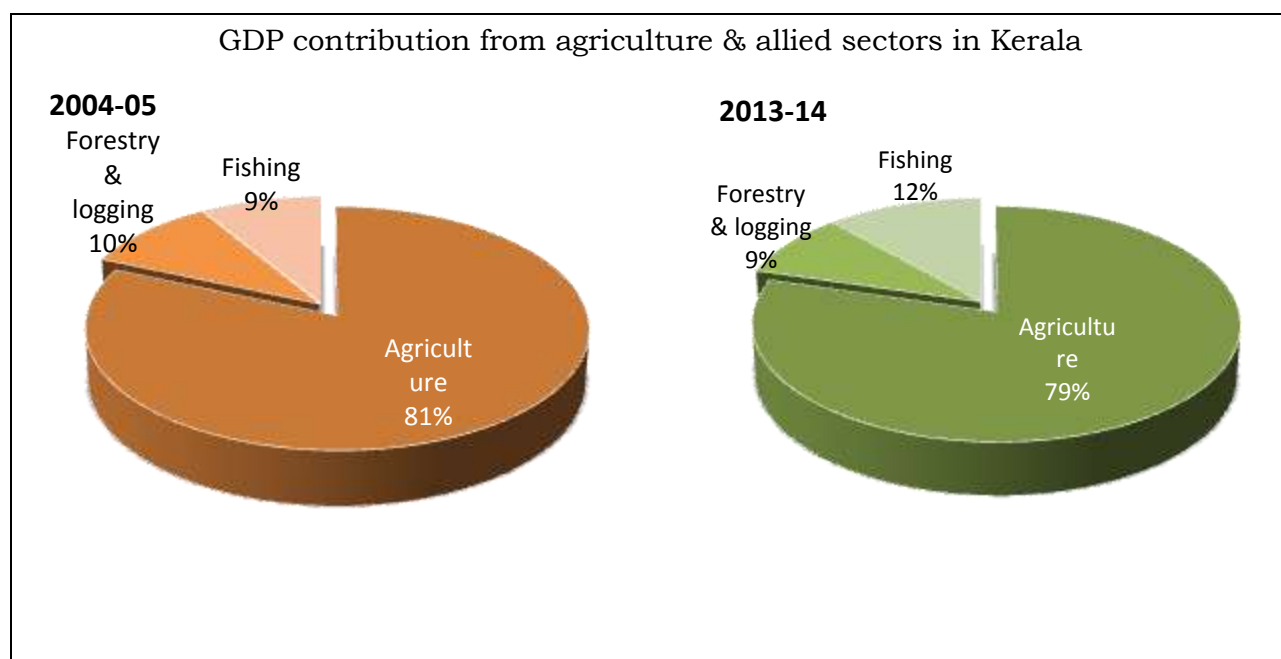
Thus GDP from agriculture is the total value of goods and services produced from agriculture (principal, minor and miscellaneous crops [products and byproducts]) and livestock (milk, meat, egg, wool, hair, dung, honey etc). At current prices, the all India GDP during the year 2013-14 is Rs.10472807 crores and out of this the agriculture sector has shared an amount of Rs.1653802 crores (15.8 percent).

While considering the State of Kerala, the total GDP in 2013-14 is Rs.396282.46 crores and the share of agriculture subsector is 43096.47 crores (10.88 percent of total GDP). The GDP contribution from above subsectors, primary sector and total GDP in Kerala and all India during 2004-05 and 2013-14 at current prices are given in the following table.

Rs. in Crores

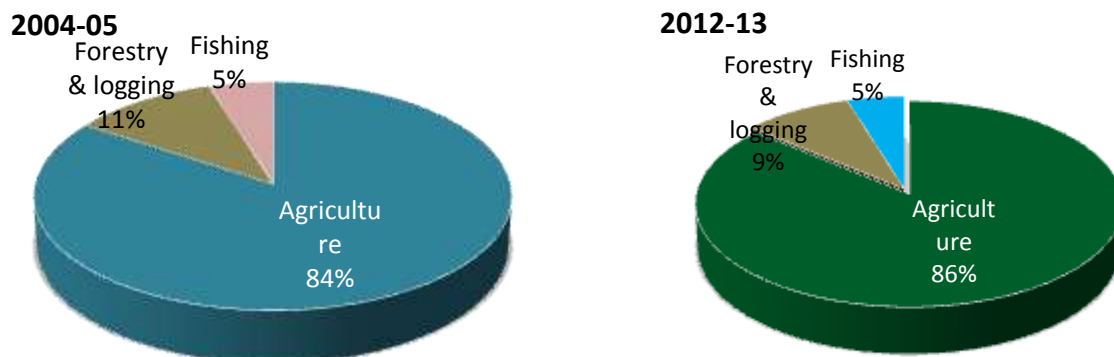
Subsector	KERALA		INDIA	
	2004-05	2013-14	2004-05	2013-14
Agriculture	16980.51	43096.47	476634	1653802
Forestry & logging	2049.02	4828.27	61640	NA
Fishing	1814.22	6264.54	27153	NA
Agriculture & allied sector total	20843.75	54189.28	565426	1906348
Primary sector total	21301.53	56097.20	650454	2129000
Total GDP	119264.00	396282.46	2971464	10472807

The change in GDP share of each of the above subsectors of agriculture and allied sector in Kerala from 2004-05 to 2013-14 at current prices is shown below.



The share of agriculture including livestock is decreased by 2% in the State during the period of 10 years. But in all India, the subsectoral share of agriculture has increased by 2% from 2004-05 to 2012-13 (note that sub sectoral figures of all India for the year 2013-14 are not available). The following pie charts shows the changes happened in sub sectoral share of GDP of all India from 2004-05 to 2012-13.

GDP contribution from agriculture & allied sector in India



3.2 GDP from agriculture in Kerala

The following table shows the GSDP from Agriculture sub sector and total GSDP in Kerala at current prices and at 2004-05 prices during the last 10 years from 2004-05 to 2013-14.

Rs. in Crores

Year	Current prices		Constant prices	
	GDP from Agriculture	Total GDP	GDP from Agriculture	Total GDP
2004-05	16980.51	119264.00	16980.51	119264.00
2005-06	18949.14	136841.76	18041.97	131293.93
2006-07	20821.01	153784.88	16567.85	141666.69
2007-08	22216.33	175141.08	16196.60	154092.68
2008-09	24927.44	202782.79	16533.94	162659.20
2009-10	25748.35	231998.67	16036.66	177571.35
2010-11	34012.38	263773.30	14869.15	189850.71
2011-12	40379.10	312677.16	15701.19	200957.73
2012-13	40288.47	347840.78	15931.67	212859.53
2013-14	43096.47	396282.46	15473.30	226208.50

Note: GDP from Agriculture subsector includes animal husbandry and dairying also, because the exact figures of income generated in respect of each cannot be segregated.

3.3 Growth rate of GDP from agriculture sector in Kerala

The table given below shows the growth rate of GDP from agriculture and that of total GDP at current and constant prices over the previous year from 2005-06 to 2013-14 in Kerala.

Year	at current prices		at constant (2004-05) prices	
	Agriculture sub sector	Total GDP	Agriculture sub sector	Total GDP
2005-06	11.59	14.74	6.25	10.09
2006-07	9.88	12.38	-8.17	7.90
2007-08	6.70	13.89	-2.24	8.77
2008-09	12.20	15.78	2.08	5.56
2009-10	3.29	14.41	-3.01	9.17
2010-11	32.10	13.70	-7.28	6.92
2011-12	18.72	18.54	5.60	5.85
2012-13	-0.22	11.25	1.47	5.92
2013-14	6.97	13.93	-2.88	6.27

3.4 Growth rate of GDP from agriculture sector in India

The percentage growth of GDP from agriculture sector and total GDP of all India at current and constant prices over the previous year from 2005-06 to 2013-14 is as follows.

Year	at current prices		at constant (2004-05) prices	
	Agriculture sub sector	Total GDP	Agriculture sub sector	Total GDP
2005-06	12.63	14.10	5.53	9.48
2006-07	12.64	16.60	4.13	9.57
2007-08	18.46	15.91	6.34	9.32
2008-09	12.62	15.75	-0.27	6.72
2009-10	15.12	15.18	0.41	8.59
2010-11	23.15	18.66	9.54	8.91
2011-12	13.73	15.77	5.34	6.69
2012-13	8.99	11.88	0.91	4.47
2013-14	16.67	11.54	4.93	4.74

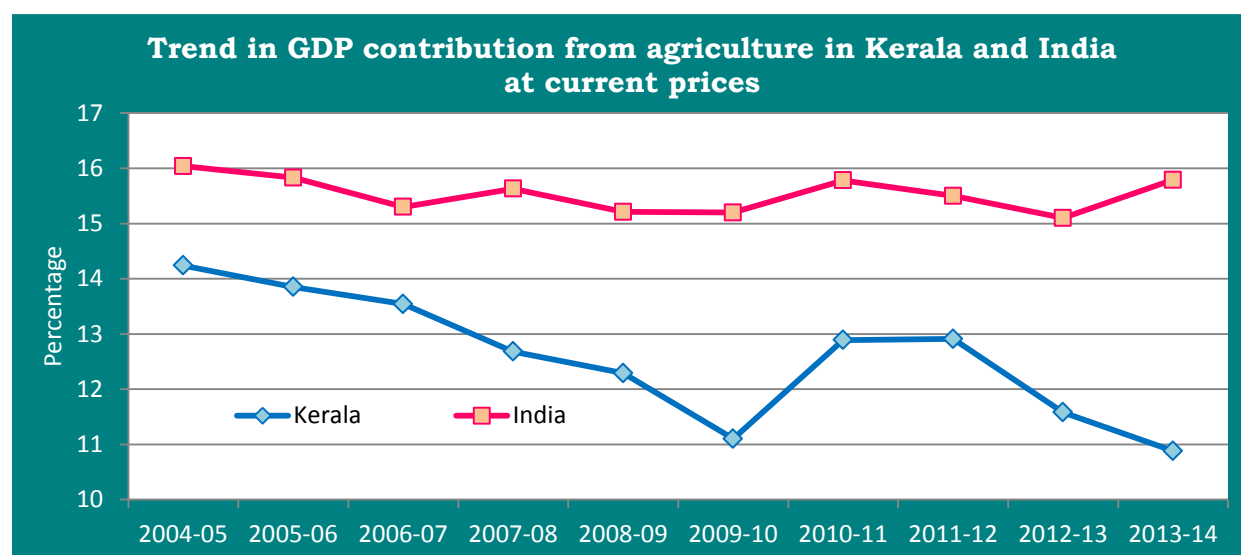
3.5 GDP contribution from Agriculture - Kerala Vs India

The percentage share of GDP from agriculture (including livestock and dairying) over total GDP of Kerala and India at current and constant prices is given below.

Year	Kerala		India	
	Current prices	Constant (2004-05) prices	Current prices	Constant (2004-05) prices
2004-05	14.24	14.24	16.04	16.04
2005-06	13.85	13.74	15.83	15.46
2006-07	13.54	11.69	15.30	14.69
2007-08	12.68	10.51	15.63	14.29
2008-09	12.29	10.16	15.21	13.36
2009-10	11.10	9.03	15.20	12.35
2010-11	12.89	7.83	15.78	12.42
2011-12	12.91	7.81	15.50	12.26
2012-13	11.58	7.48	15.10	11.85
2013-14	10.88	6.84	15.79	11.87

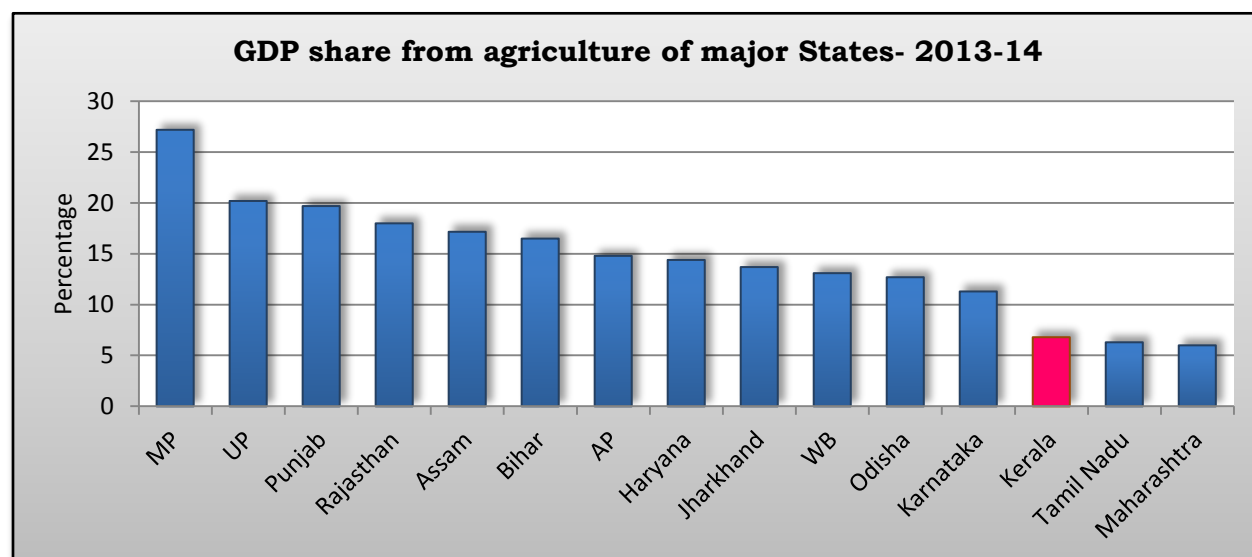
Source: GDP of Kerala & India 2004-05 to 2013-14, Dept of Economics & Statistics, Kerala and website of Planning Commission (<http://planningcommission.nic.in>)

The following graph shows that the GDP contribution of agriculture in Kerala is decreasing more quickly compared to that of all India.



3.6 GDP contribution from agriculture in major states

While comparing the GDP share of agriculture sector (including livestock) of Kerala with other major agricultural producing States in the country, it is observed that the State's contribution is relatively much below than other States but just above our neighbor Tamil Nadu. The following graph shows a clear picture on this aspect.



The GSDP contribution from agriculture sector including livestock of major states in India during the year 2013-14 at constant (2004-05) prices is given in the following table. (Rs. in Crores)

Sl No	State	Agriculture GSDP	Total GSDP	% share of agriculture GDP
1	AP	67742.75	457351.14	14.8
2	Assam	15733.44	88537.17	17.2
3	Bihar	28908.36	174733.58	16.5
4	Haryana	28683.12	198858.27	14.4
5	Jharkhand	15016.90	109408.41	13.7
6	Karnataka	35396.66	314355.55	11.3
7	Kerala	15473.30	226208.5	6.8
8	Maharashtra	53961.02	897785.79	6.0
9	MP	64879.98	238526.47	27.2
10	Odisha	18889.25	148226.03	12.7
11	Punjab	34079.48	173221.48	19.7
12	Rajasthan	44123.38	244996.71	18.0
13	Tamil Nadu	30094.26	480618.05	6.3
14	UP	94035.12	465968.88	20.2
15	WB	49169.17	374898.99	13.1

Source: Agricultural Statistics 2014, M/o Agriculture & Cooperation, Govt of India

Chapter 4

AGRICULTURE IN KERALA- AN OVERVIEW

4.1 Cultivators and agricultural labourers in Kerala

The number of people engaged in agricultural activities has been reducing in the State due to high returns from other entrepreneurial ventures or business and service sectors. The population of agricultural labourers in Kerala is also decreasing due to migration of labour force to construction, manufacturing and service sectors. On analyzing the census population of cultivators and agricultural labourers in the State in 2001 and 2011 years, it is observed that both the number and share of cultivators and agricultural labourers had reduced. The decadal rate of decline of cultivators and agricultural labourers is 7.4% and 18.4% respectively. While a slight increase of female cultivators has been recorded during the decade. But at the same time a positive growth in urban population in all the above categories has been recorded both in absolute values and their shares during the period. This may be due to the urbanisation by the formation of new Corporations/ Municipalities and expansion of existing urban local bodies by conversion of nearest rural Panchayats during the period. The following tables show the population of cultivators and agricultural labourers in 2001 census and 2011 census.

Total population in Kerala

	2001 census			2011 census		
	Total	Male	Female	Total	Male	Female
Total	31841374	15468614	16372760	33406061	16027412	17378649
Rural	23574449	11451282	12123167	17471135	8408054	9063081
Urban	8266925	4017332	4249593	15934926	7619358	8315568

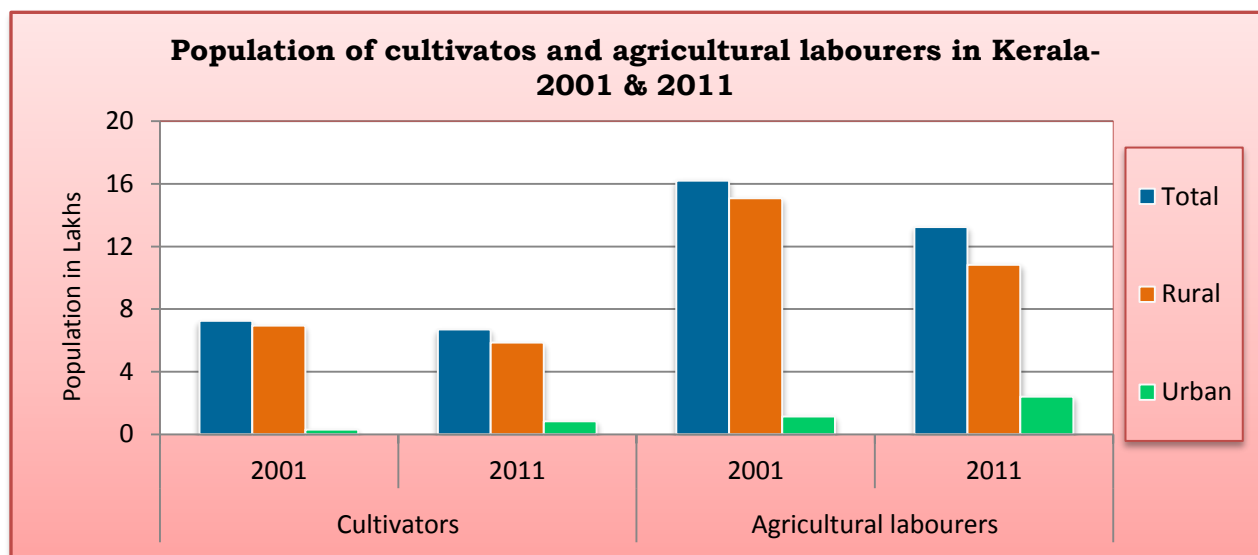
Population of cultivators in Kerala

	2001 census			2011 census		
	Total	Male	Female	Total	Male	Female
Total	724155	602038	122117	670253	546906	123347
Rural	693986	577726	116260	587029	478881	108148
Urban	30169	24312	5857	83224	68025	15199

Population of agricultural labourers in Kerala

	2001 census			2011 census		
	Total	Male	Female	Total	Male	Female
Total	1620851	1078354	542497	1322850	857995	464855
Rural	1507081	1003265	503816	1083003	690294	392709
Urban	113770	75089	38681	239847	167701	72146

Source: Census estimates 2001, 2011



Percentage of cultivators and agriculture labourers to total population

	Cultivators						Agricultural labourers					
	2001 census			2011 census			2001 census			2011 census		
	T	M	F	T	M	F	T	M	F	T	M	F
Total	2.3	3.8	0.7	2.0	3.4	0.7	5.1	7.0	3.3	4.0	5.4	2.7
Rural	2.9	5.0	1.0	3.4	5.7	1.2	6.4	8.8	4.2	6.2	8.2	4.3
Urban	0.4	0.6	0.1	0.5	0.9	0.2	1.4	1.9	0.9	1.5	2.2	0.9

Growth rate of cultivators and agricultural labourers during 2001-2011

	Cultivators			Agricultural labourers		
	Total	Male	Female	Total	Male	Female
Total	-7.4	-9.2	1.0	-18.4	-20.4	-14.3
Rural	-15.4	-17.1	-7.0	-28.1	-31.2	-22.1
Urban	175.9	179.8	159.5	110.8	123.3	86.5

For district wise population of main and marginal cultivators and agricultural labourers in the State as per 2011 census, the tables given in annexure may be referred.

4.2 Agricultural households in Kerala

The following table shows the category wise estimated number of agricultural households in Kerala and India during the agricultural year 2012-13.

Category	Kerala		All India	
	No. in '000			
	Number	%	Number	%
SC	23.4	1.7	12118.6	13.4
ST	72.6	5.2	14668.1	16.3
OBC	753.7	53.7	40979.4	45.4
Others	554.7	39.5	22435.0	24.9
Total	1404.3	100.0	90201.1	100.0

Source: Key Indicators of Agricultural households in India, 2012-13, NSSO, Govt of India

4.3 Operational Holdings in Kerala

During the period of 1955-56, 66.7 percent of total number of holdings in Travancore- Cochin area and 28.9 percent in Malabar area were less than one acre in extent. Now, more than 96 percent of holdings in the state are less than one hectare. The number, area and average size of operational holdings in all size class in the State and all India as per the quinquennial Agricultural census held in 2010-11 by Govt of India are given in the following table.

Size Class	Number		%	Area (in Hectares)		%	Average size (in Hectares)	
	Kerala	All India		Kerala	All India		Kerala	India
Marginal	6579692	92356335	7.12	885644	35409560	2.50	0.13	0.38
Small	180171	24705047	0.73	282305	35135580	0.80	1.57	1.42
Semi-Medium	57028	13840048	0.41	159075	37547232	0.42	2.79	2.71
Medium	12044	5855536	0.21	64063	33708831	0.19	5.32	5.76
Large	1854	1000403	0.19	119729	17378819	0.69	64.58	17.37
All Holdings	6830789	137757369	4.96	1510816	159180022	0.95	0.22	1.16

Source: *Agricultural Statistics 2013, M/o Agriculture & Cooperation, Govt of India; Economic Review 1960*

Note: The size class definition of land holdings is

1. Marginal : less than 1 hectare
2. Small : 1 to 2 hectares
3. Semi-Medium : 2 to 4 hectares
4. Medium : 4 to 10 hectares
5. Large : 10 hectares and above

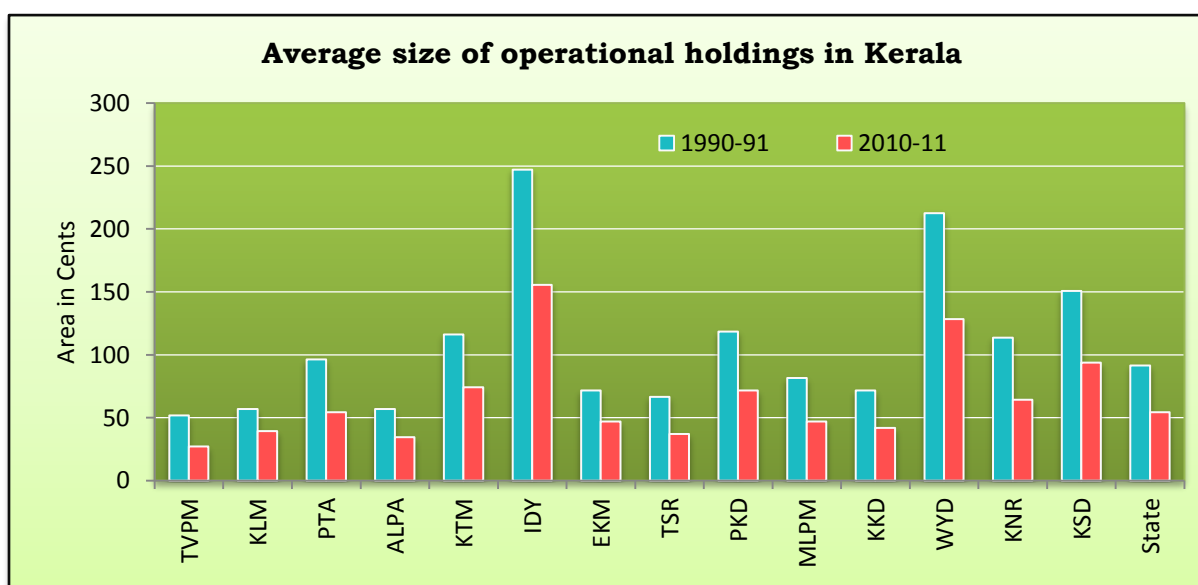
4.4 Average size of holdings in Kerala

The Stat has observed drastic decrease in area of operational holdings due to increase in demand of land for housing due to increase in its population. The average size of operational holdings in Kerala is 0.22 hectares (54.36 cents). During 1990-91, the average size of holding was 0.37 hectares and in 2000-01 it was 0.24 hectares. Thus about 40.5 percent decrease in area had occurred during the period of 20 years. The rate of decrease in the first decade is 35 percent and in the last decade is 8 percent. The district wise average size of operational holdings in the State as per Agricultural census held during 1990-91 and 2010-11 and its rate of change during the two decades is given in the following table. Note that holdings having less than 0.02 hectares (5 cents) of area are excluded from this computation.

	District	1990-91	2010-11	% Variation
1	Thiruvananthapuram	51.89	27.18	-47.62
2	Kollam	56.83	39.54	-30.43
3	Pathanamthitta	96.37	54.36	-43.59
4	Alappuzha	56.83	34.59	-39.13
5	Kottayam	116.14	74.13	-36.17
6	Idukki	247.10	155.67	-37.00
7	Ernakulam	71.66	46.95	-34.48
8	Thrissur	66.72	37.07	-44.44
9	Palakkad	118.61	71.66	-39.58
10	Malappuram	81.54	46.95	-42.42
11	Kozhikode	71.66	42.01	-41.38
12	Wayanad	212.51	128.49	-39.53
13	Kannur	113.67	64.25	-43.48
14	Kasaragode	150.73	93.90	-37.70
	State Average	91.43	54.36	-40.54

Source: Reports of Agricultural Census 1990-91, 2000-01, 2010-11, Department of Economics & Statistics, Kerala

From the above table, it can be observed that the size of operational holdings in all districts have been reduced, and the maximum reduction is in the capital district. Idukki district has the maximum size followed by Wayanad and Kasragode. While the area is least in Thiruvananthapuram district followed by Alappuzha and Thrissur.



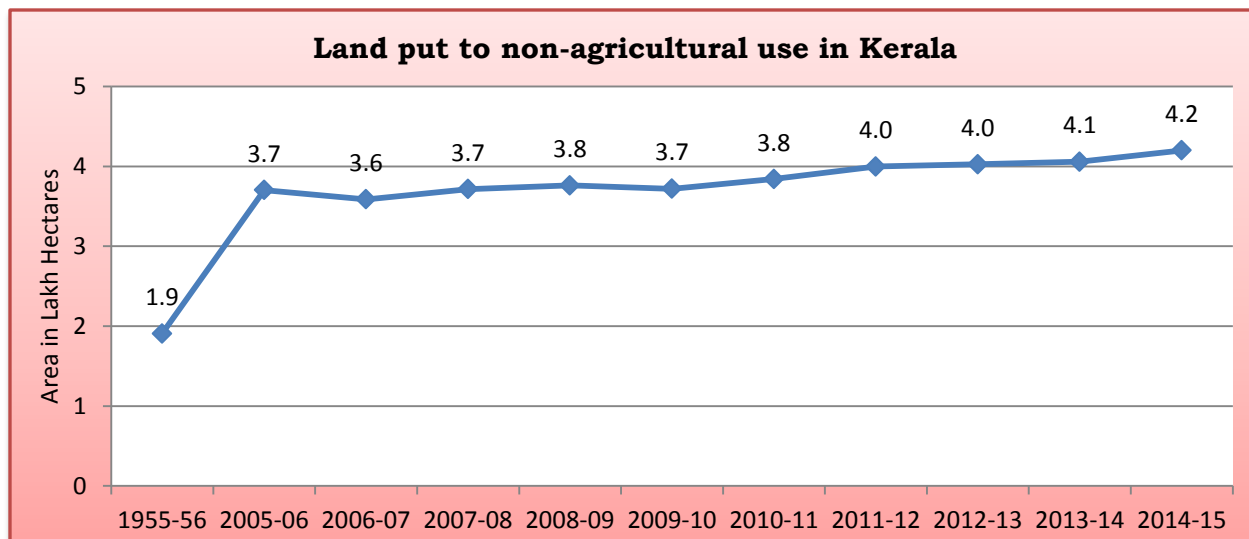
4.5 Change of pattern in land use

The total area sown under crops in 2014-15 was 26.25 lakh hectares, against 26.17 lakh hectares in 2013-14. The net area sown was 20.43 lakh hectares in 2014-15 and recorded a slight decrease from the previous year. The land use pattern in the State during the last 10 years is given in the following table.

Area in Lakh Hectares

Year	Total geographical area	Forest land	Land put to non-agricultural use	Barren & uncultivable land	Fallow land	Other uncultivable land	Net area sown	Gross cropped area
2005-06	38.86	10.82	3.70	0.26	1.15	1.60	21.32	29.86
2006-07	38.86	10.82	3.59	0.26	1.29	1.90	21.01	29.18
2007-08	38.86	10.82	3.72	0.26	1.28	1.90	20.89	27.61
2008-09	38.86	10.82	3.76	0.25	1.15	2.00	20.89	26.95
2009-10	38.86	10.82	3.72	0.22	1.22	2.10	20.79	26.69
2010-11	38.86	10.82	3.84	0.20	1.28	2.02	20.72	26.47
2011-12	38.86	10.82	4.00	0.18	1.35	2.12	20.40	26.62
2012-13	38.86	10.82	4.03	0.16	1.33	2.05	20.48	25.92
2013-14	38.86	10.82	4.06	0.14	1.28	2.06	20.51	26.17
2014-15	38.86	10.82	4.20	0.13	1.20	2.09	20.43	26.25

The following chart shows that the extent of land put to non-agricultural use has been increasing from year to year. The area under building and courtyard, playground, road, small streams etc is covered under land put to non-agricultural use. During the year of State formation, 1.9 lakh hectares of area was put to non agricultural uses. Compared with 1955-56, the density of population in the State has increased very much. Considering the availability of land, the utilization of land for non agricultural purpose has increased. Now the land under this category is 4.2 lakh hectares.



4.6 Land use pattern in Kerala 1955-56 Vs 2014-15

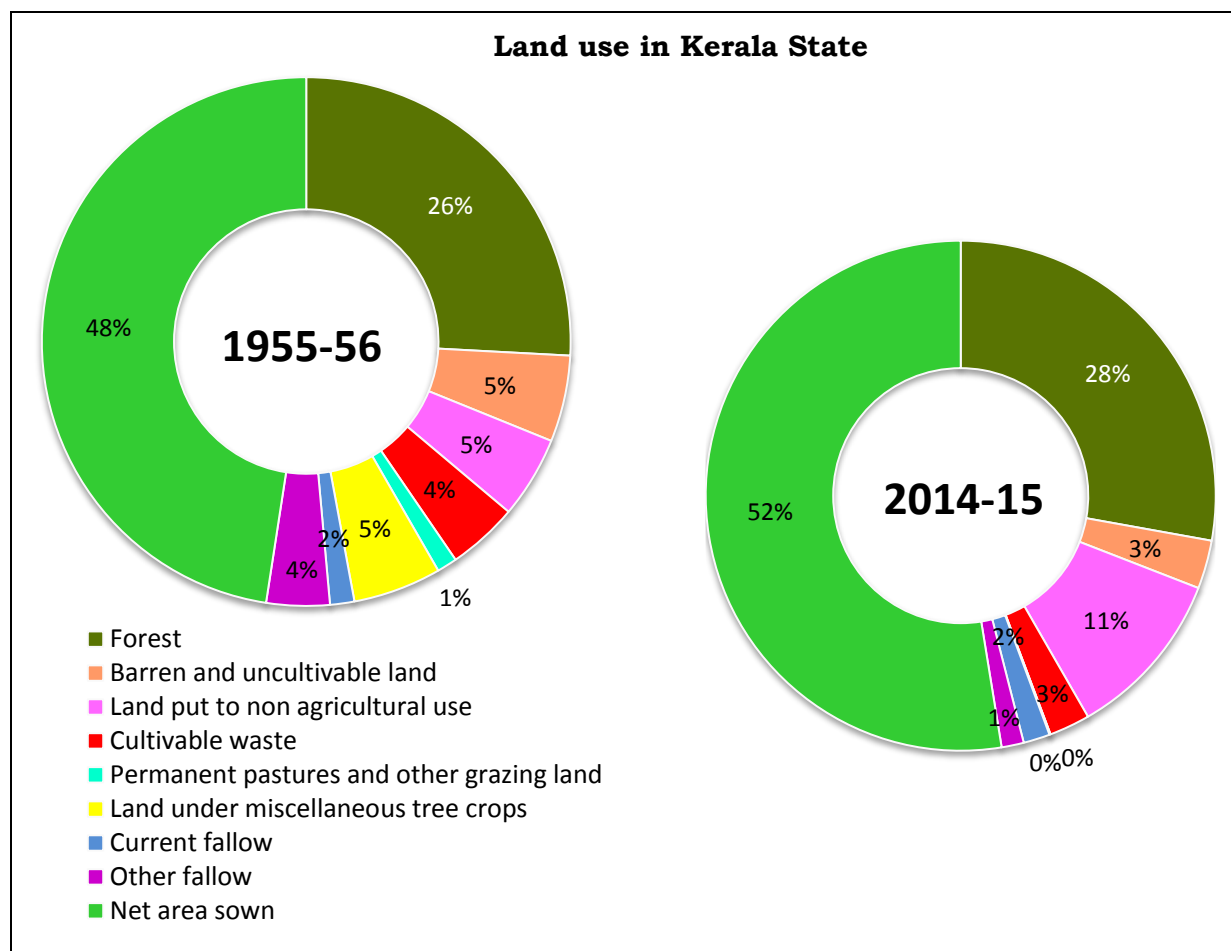
During 1955-56, 48 percent of total area was used for cultivation, in 2004-05 it was 55 percent and now it has been reduced to 53%. The area under forest has been increased both in absolute terms and percentage during this period. The use of land for nonagricultural purpose like roads, buildings and other constructions has increased a lot by about 2.28 lakh hectares, the present share is 11 percent and the growth is 120 percent. Barren and uncultivable land has decreased by 41 percent, this may be due to mining for construction purposes. The category wise land use in the State in 1955-56 and 2014-15 in Kerala is given in the following table.

Area in Hectares

Land use category	1955-56		2014-15		% variation
	Area	% share	Area	% share	
Total area	3808984	100.0	3886287	100.0	2.0
Forest	984622	25.8	1081509	27.8	9.8
Barren and uncultivable land	201133	5.3	119365	3.1	-40.7
Land put to non agricultural use	190611	5.0	419128	10.8	119.9
Cultivable waste	164306	4.3	100676	2.6	-38.7
Permanent pastures and other grazing land	46945	1.2	5	0.0	-100.0
Land under miscellaneous tree crops	205585	5.4	2653	0.1	-98.7
Current fallow	56657	1.5	65329	1.7	15.3
Other fallow	147309	3.9	54741	1.4	-62.8
Net area sown	1811817	47.6	2042881	52.6	12.8
Area sown more than once	400243	10.5	581743	15.0	45.3
Total cropped area	2212060	58.1	2624624	67.5	18.7

Sources: *Economic Review 1959, Agricultural Statistics 2014-15*

Note: Since in 1955-56, nine fold classification of land use was followed in the State, and now it has been changed to 13 way classifications by including more categories, viz Marshy land, Still water, Water logged area and Social forestry, and the so total area under these four category (106413 hectares) in 2014-15 is included under 'Barren and uncultivable land' for comparison purpose.



4.7 Land use pattern in Kerala Vs India

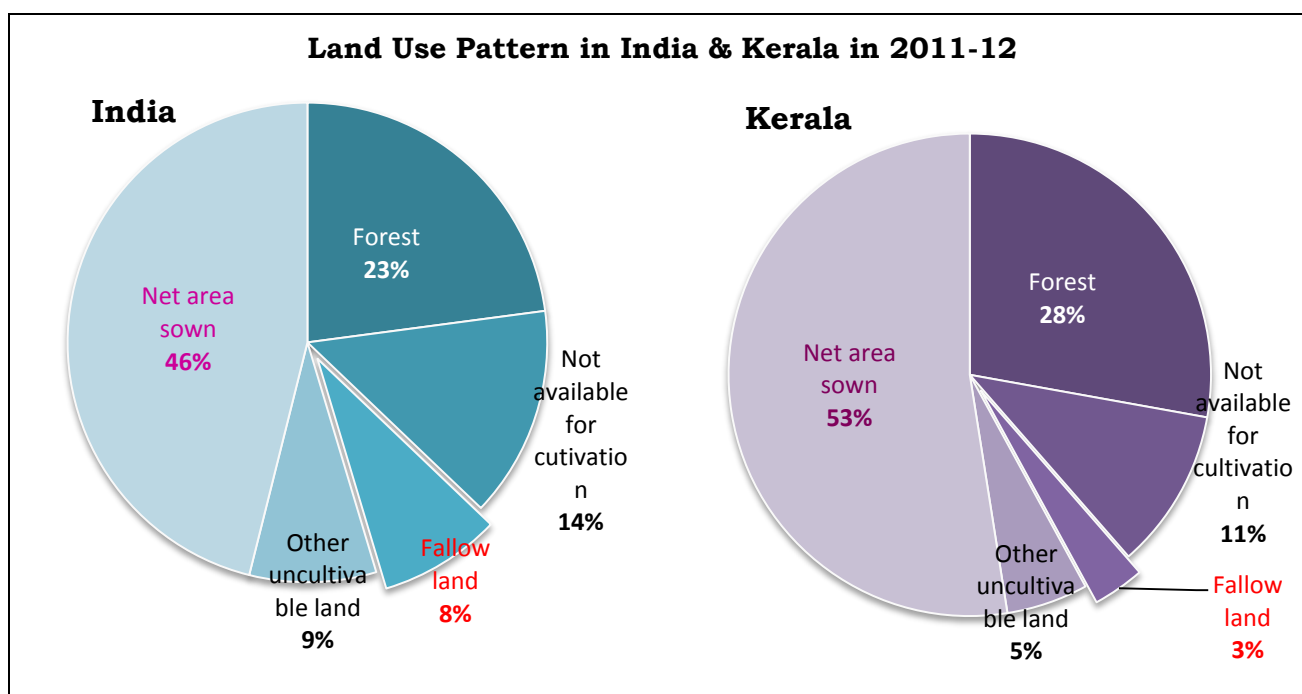
The following table shows the land use pattern of Kerala Vs all India for the year 2011-12 for comparison purpose. (Area in '00 hectares)

Land Use category	India	Kerala
Total area	3058312	38863
Forest	700352	10815
Land not available for cultivation	435264	4175
Fallow land	251789	1347
Other uncultivable land	261170	2124
Net area sown	1409737	20401

Note:

1. Land not available for cultivation: land put to non agricultural use and barren and uncultivable land
2. Fallow land: current fallow and fallow other than current fallow
3. Other uncultivable land: cultivable waste, grazing land, land under miscellaneous tree crops, marshy land, still water, water logged area, social forestry and land under miscellaneous tree crops

From the above table it is observed that the proportion of net area cropped in the State is 53 percent while this is 46 percent in all India. The proportion of land put to non agricultural use including barren and uncultivable land in India is 14 percent and the corresponding share of Kerala is only 11 percent. The share of land left as fallow up to five years in the State is below the national average. This fact is expressed in the following pie charts.



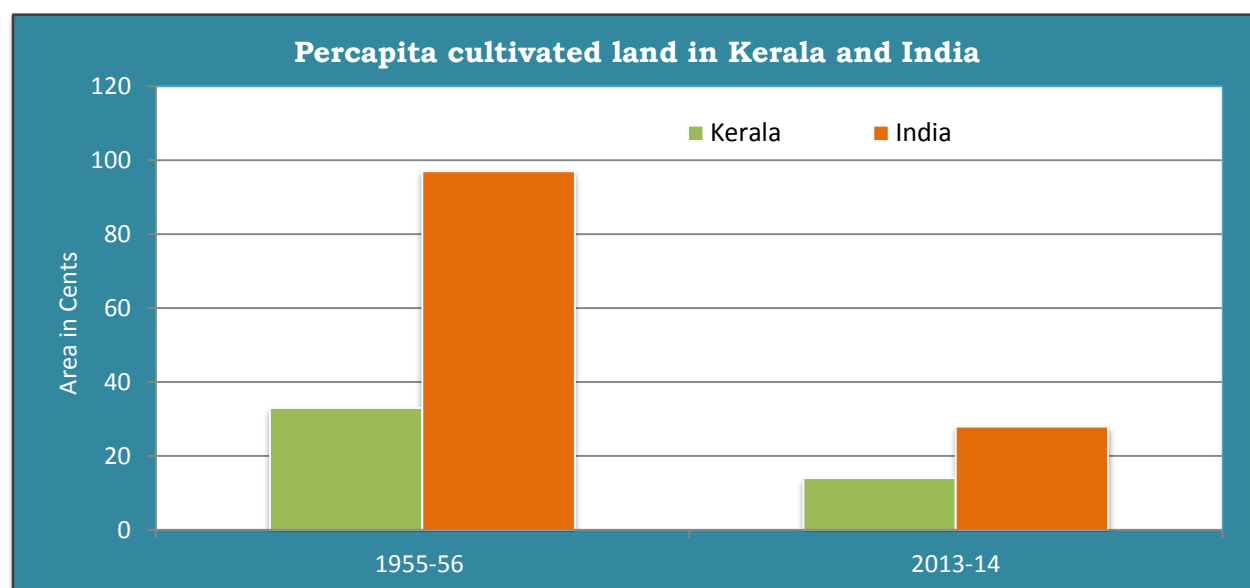
4.8 Percapita cultivated area in 1955-56 Vs 2013-14

The percapita cultivated land (ratio of net area sown to mid year population) in the State during the year of its formation was 33 cents and this has been reduced to 14 cents per person during 2013-14. The rate of change is -57.58 percent. While considering the same parameter for all India, the percapita cultivated land is reduced from 97cents to 28 cents per person. Note that during the last 60 years (between the census held in 1951 and 2011), the population growth recorded in Kerala is 146.6% and that in all India is 235.3%.

The following table shows the percapita cultivated land in Kerala and India during the year 1955-56 and 2013-14.

State	Percapita cultivated area (in Acres)		Rate of change from 1955-56 to 2013-14
	1955-56	2013-14	
Kerala	0.33	0.14	-57.58 %
India	0.97	0.28	-71.13 %

Sources: Economic Review 1960 and various State & central Govt reports.



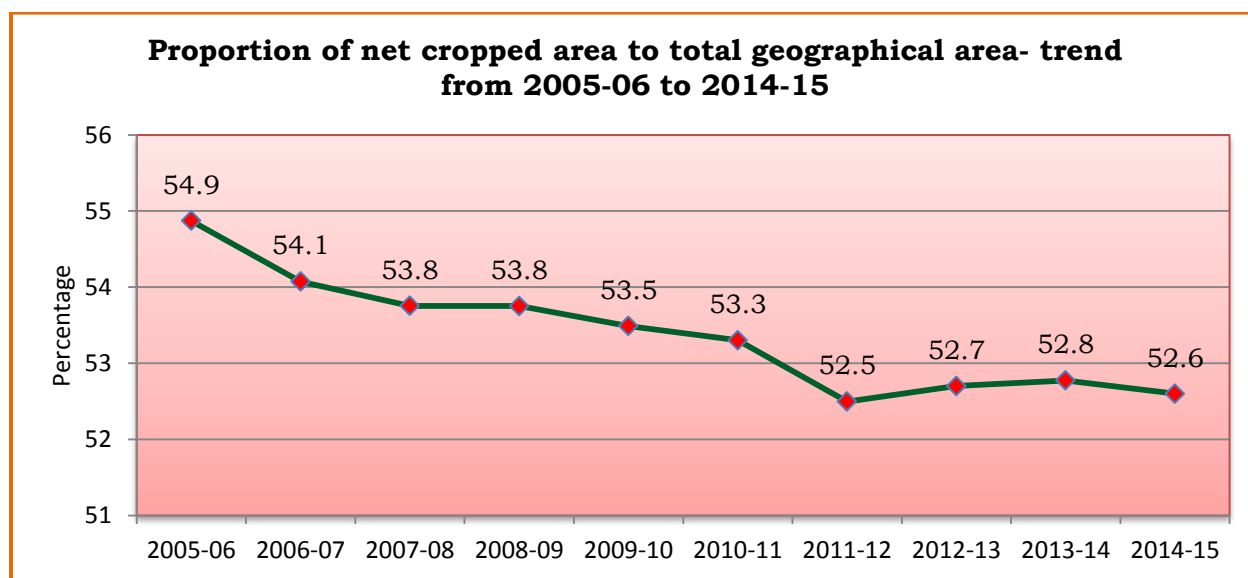
4.9 Cropping pattern

On analyzing the data over the past 10 agricultural years, it is seen that the proportion of net cropped has been reduced from 54.9% of geographical area to 52.5%. The area sown more than once, that is the difference between the gross cropped area and net cropped area, is also decreasing year by year. In 2005-06, 22% of area was cropped more than once during the same agricultural year and now it has been reduced to 15%. The cropping intensity has been reducing mainly due to the conversion of wet land for other purposes, high cost of labour, shortage of labour etc.

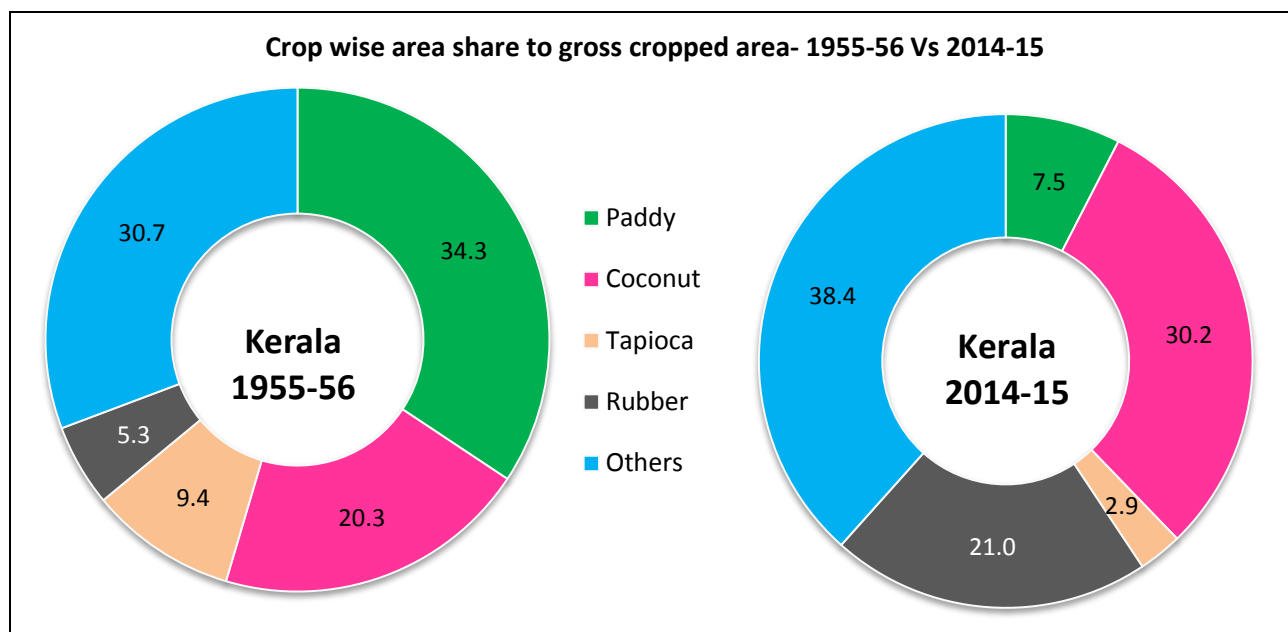
The following table shows the proportion of net cropped area and area cropped more than once in Kerala from the agricultural year 2005-06 to 2014-15.

Year	% of net area sown	% increase in net area sown	% of net cropped area sown more than once	% increase in gross cropped area
2005-06	54.9	-1.0	40.0	-0.4
2006-07	54.1	-1.5	38.8	-2.3
2007-08	53.8	-0.6	32.2	-5.4
2008-09	53.8	0.0	29.0	-2.4
2009-10	53.5	-0.5	28.4	-1.0
2010-11	53.3	-0.3	27.8	-0.8
2011-12	52.5	-1.5	30.5	0.5
2012-13	52.7	0.4	26.5	-2.6
2013-14	52.8	0.1	27.6	1.0
2014-15	52.6	-0.4	28.5	0.3

The following chart shows the trend of net area sown from 2005-06 to 2014-15.



The change in pattern of share of gross cropped area by major crops from the year 1955-56 to 2014-15 is clearly shown in the following pie charts. Figures in chart represent the percentage of crop area to gross area sown.

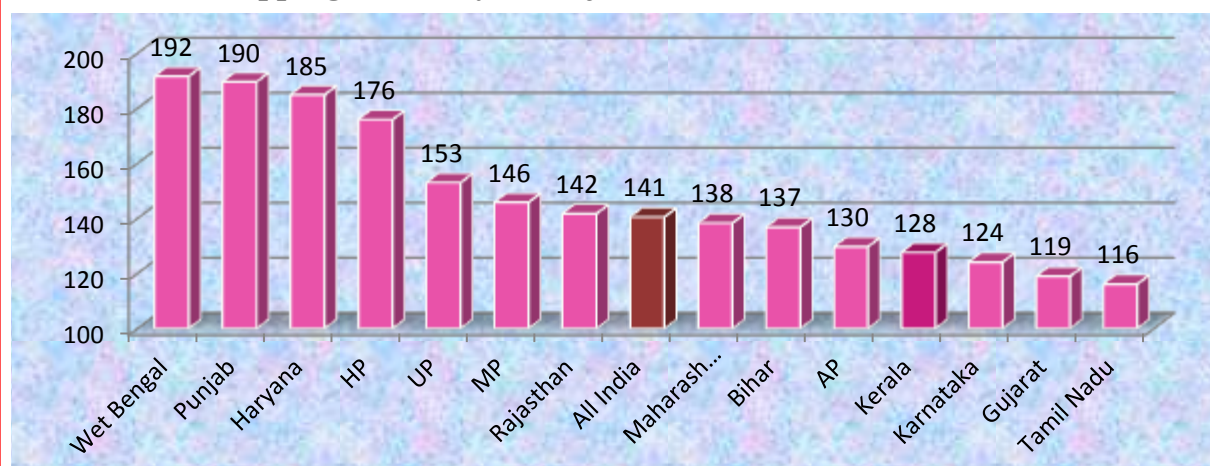


Here the area sown under paddy and tapioca has been reduced from 34.3% to 7.5% and 9.4% to 2.9% respectively. While the share of coconut and rubber crops have been increased from 20.3% to 30.2% and 5.3% to 21% respectively.

4.10 Cropping Intensity

Cropping intensity is the ratio of the total cropped area to the net cultivated area expressed in percentage, and it shows the intensity of cropping of area cultivated more than once in the same agricultural year (July to June). As per the latest available statistics (2014-15 year), the cropping intensity of Kerala is 128.5. The cropping intensity of Kerala has been reducing year by year, this can be seen in the table provided above. Due to conversion of wet land, the cultivation of seasonal crops in our State is decreased much. The following chart shows the cropping intensity of the major agricultural producing States in the country.

Cropping Intensity of major States in India in 2010-11



4.11 Change in pattern of area under principal crops

During 1957-58, the food crops occupied 67 percent of the total cultivated area of Kerala, and the corresponding figure for India as a whole was nearly 80 percent. The table given below shows the area under food grain crops, spices and condiments, food crops and non food crops during the last 10 years in Kerala.

Unit: in Hectares

Year	Food grains	Spices & condiments	Fruit crops	Total Food crops	Nonfood crops	Gross cropped area
2005-06	289179	437897	420030	1318644	1667083	2985727
2006-07	273367	410836	387416	1240582	1676959	2917541
2007-08	236983	360273	363021	1126495	1634599	2761094
2008-09	241453	335946	342304	1081873	1613070	2694943
2009-10	241528	351658	327449	1067468	1601210	2668678
2010-11	219725	353370	326539	1041540	1605921	2647461
2011-12	212544	276592	365182	995669	1666088	2661757
2012-13	200740	269546	361795	966954	1624780	2591734
2013-14	202926	266026	368854	970103	1646567	2616670
2014-15	202109	263438	371437	981720	1642904	2624624

Note: Nonfood crops include oil seeds (groundnut, coconut, sesamum etc.), fiber (cotton etc), drugs & narcotics (betel leaves, arecanut, tobacco etc) and plantation crops (tea, coffee, rubber, cocoa etc).



4.12 Area, production and productivity of major crops in Kerala

The following tables show the area, production and productivity of major crops in the State during the year 2014-15. The unit for Area in Hectares, production in Tonnes and Yield rate in Kg per Hectare.

Area, production and productivity of foodgrains in 2014-15

Year	Area	Production	Productivity
Paddy Autumn	63981	161477	2524
Paddy Winter	88990	254450	2859
Paddy Summer	45188	146165	3235
Paddy Total	198159	562092	2837
Jowar	173	128	740
Ragi	79	78	987

Area, production and productivity of fruit crops in 2014-15

Year	Area	Production	Productivity
Jack #	92203	293	3178
Mango	77301	434129	5616
Banana	61936	545431	8806
Plantain	56761	468320	8251
Pineapple	8080	77731	9620
Papaya	17999	107200	5956
Cashew	45436	29715	654

Production of jack in million nuts, productivity in nuts/hectare

Area, production and productivity of spices and plantation crops in 2014-15

Year	Area	Production	Productivity
Green Chilly	1584	1491	941
Pepper	85431	40690	476
Ginger	4800	22989	4789
Turmeric	2470	6820	2761
Cardamom	39730	16000	403
Arecanut	96686	125926	1302
Tamarind	11240	37300	3319
Clove	1073	77	72
Nutmeg	20627	14193	688
Garlic	75	625	8333
Tea	30205	65174	2158
Coffee	85359	67700	793
Rubber	549955	507700	923
Cocoa	13183	14186	1076

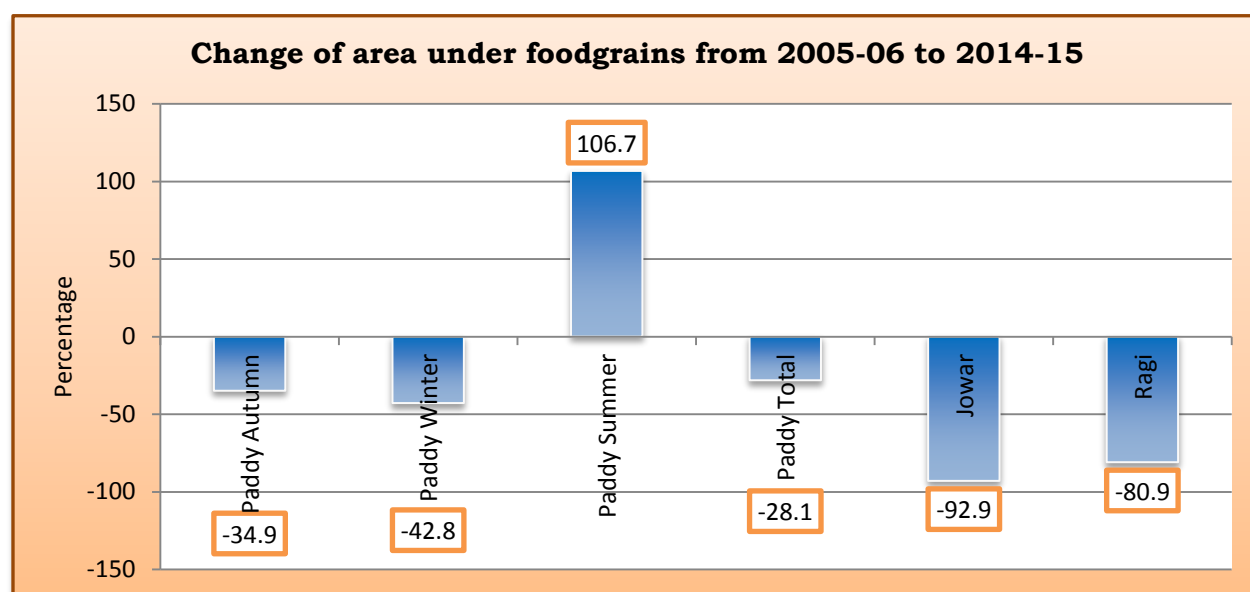
Area, production and productivity of coconut and other crops in 2014-15

Year	Area	Production	Productivity
Tapioca	75493	2943919	38996
Sweet Potato	361	5123	14191
Drumstick	17013	15976	939
Groundnut	480	692	1442
Sesamum	262	89	341
Coconut*	793856	5947	7491
Cotton	170	279	1641
Betel Leaves	327	12009	36725
Sugarcane	1517	14853	9791

* Production of coconut in million nuts, productivity in nuts/ hectare

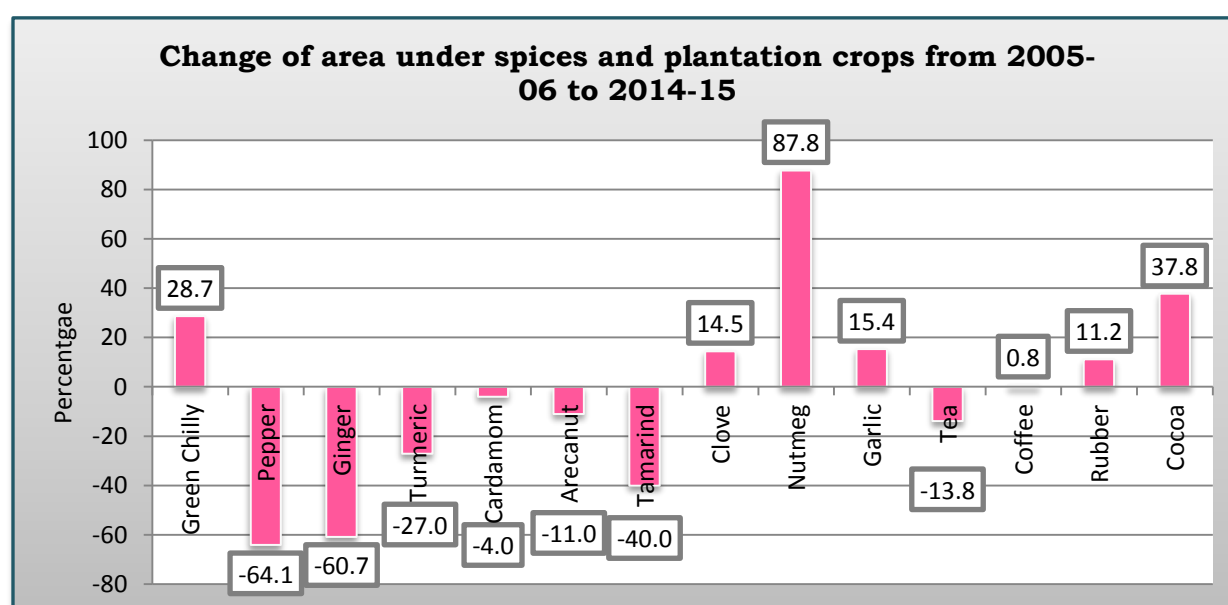
4.13 Change of area under food grains

The following graph shows the change of area under paddy (3 seasons), jowar, and ragi from 2005-06 to 2014-15 in the State. Here only summer paddy shows an increasing growth over the period.



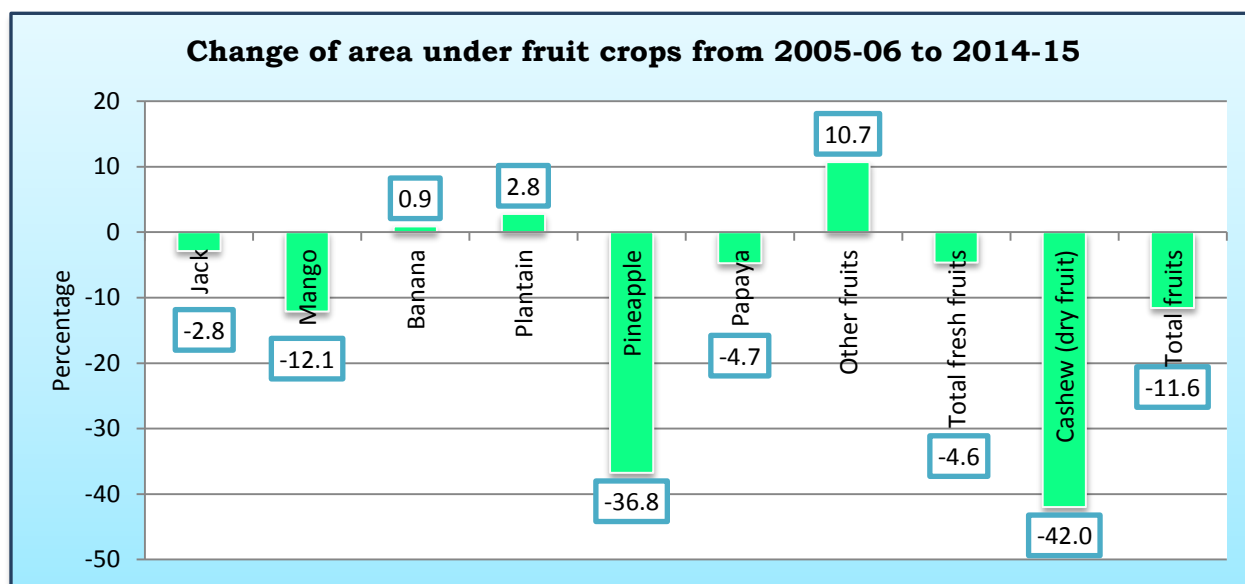
Change of area under spices and plantation crops

The rate of change in area under spices and plantation crops in Kerala is shown in the following graph. The crops showing area increase during the period are green chilly, clove, nutmeg, garlic, coffee, rubber and cocoa. Among spices, pepper showed the least area change from 2005-06 to 2014-15.



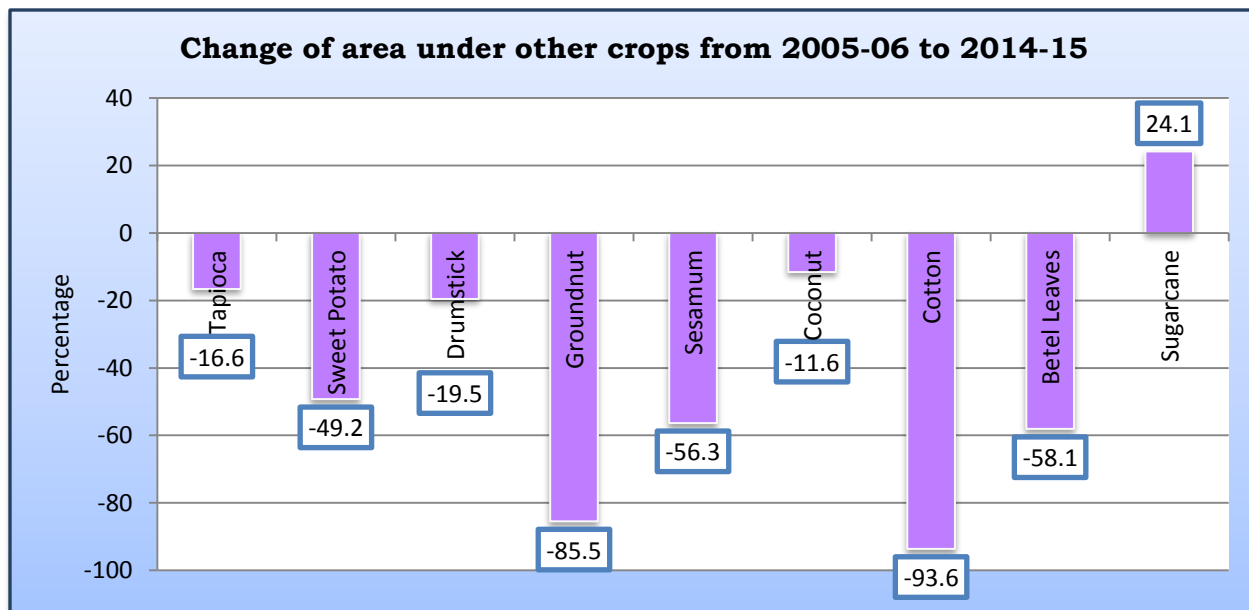
Change of area under fruit crops

All fruit crops except banana and plantain have recorded a negative growth in area, and the major decline is by cashew crop followed by pineapple. The extent of change of area under cultivation of the each fruit crop during 2005-2015 may be seen in the following graph.



Change of area under coconut and other crops

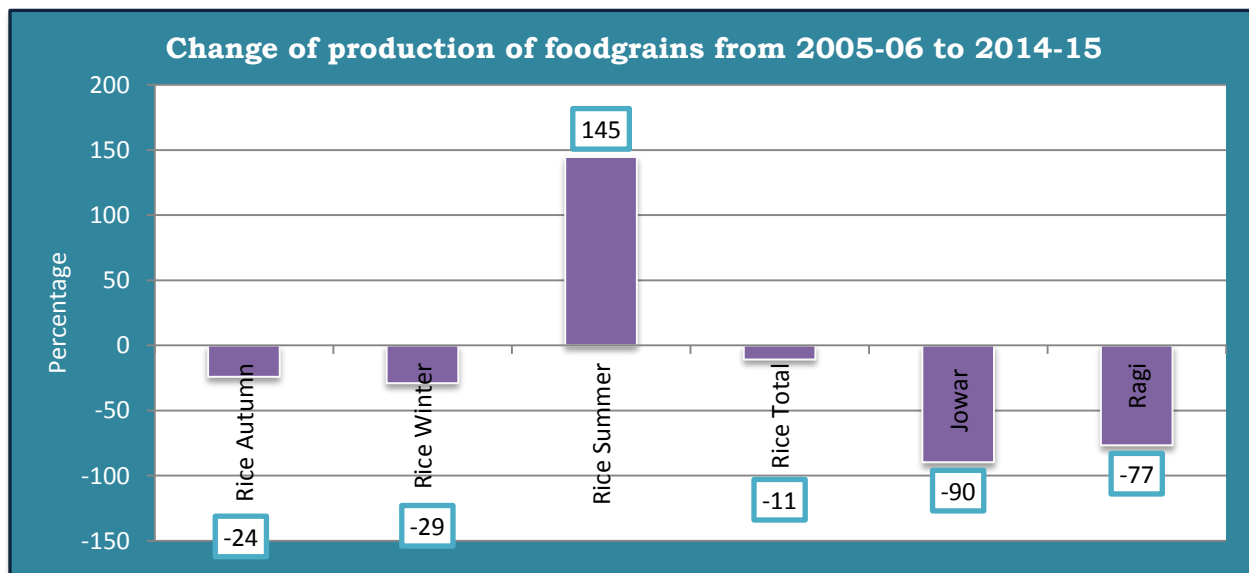
The area under all other crops not mentioned above such as coconut, tapioca, sweet potato, drumstick, groundnut, sesamum, cotton and betel leaves has been declined during the period from 2005-06 to 2014-15. But sugarcane showed 24 percent increase in area. The rate of decrease in area may be seen from the following graph.



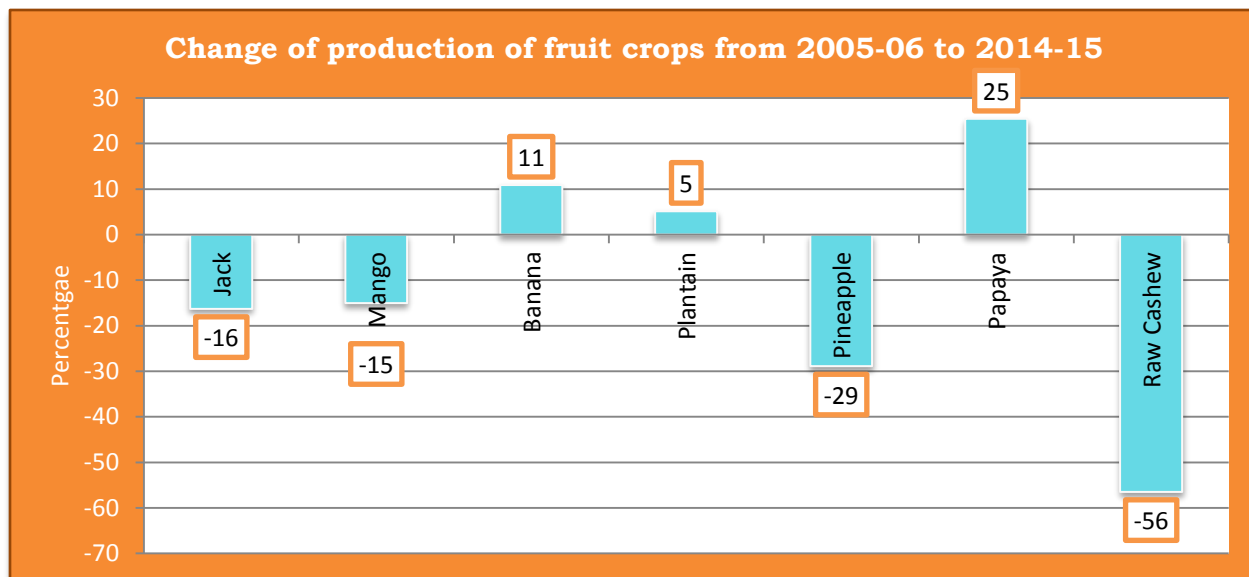
4.14 Change of production of principal crops

The change of production of food as well as non-food crops during the period from 2005-06 to 2014-15 is briefed below.

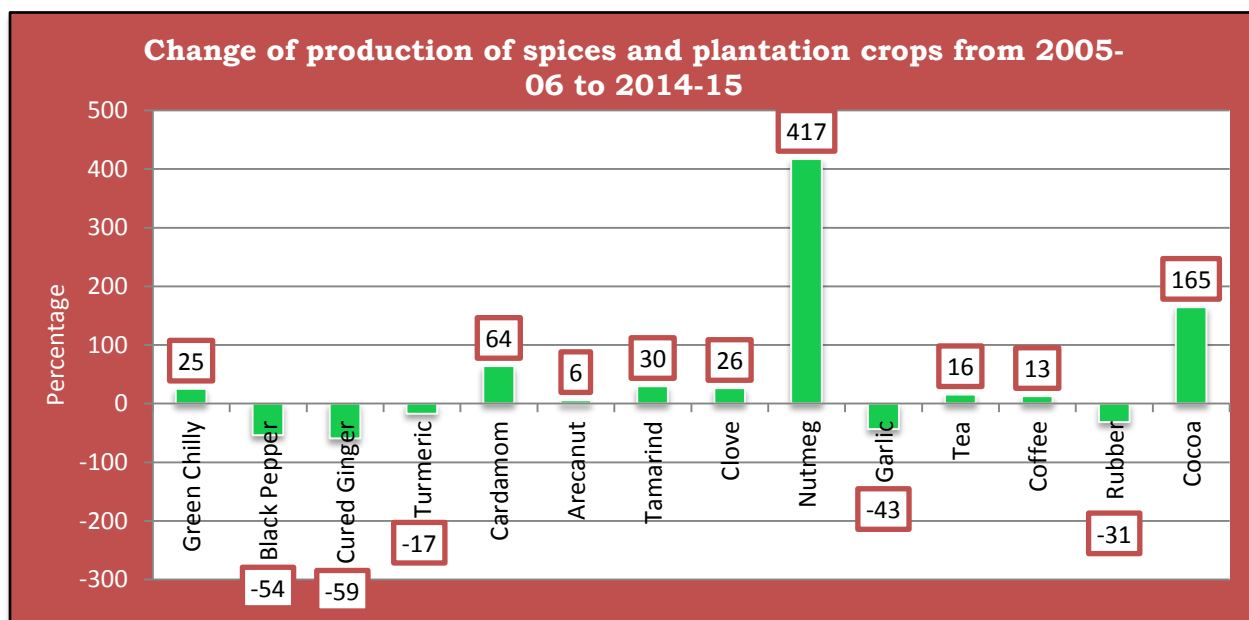
Foodgrains: All foodgrain crops viz. rice, jowar and ragi have recorded a negative growth in production during the period of 10 years. But a positive growth in summer paddy has been recorded (145%).



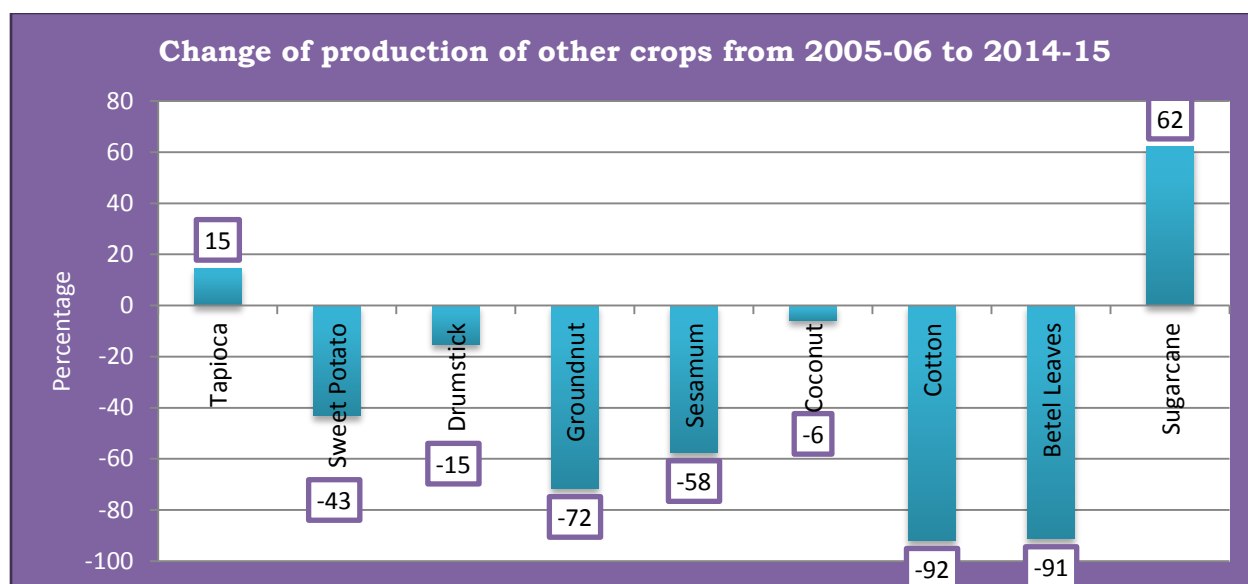
Fruit crops: Except banana, plantain and papaya, all fruit crops have recorded a negative growth during the period. The maximum reduction of production is recorded by raw cashew (-56%) followed by pineapple (-29%).



Spices and Condiments and plantation crops: During the period from 2005-06 to 2014-15, green chilly, arecanut, tamarind, clove, nutmeg, tea, coffee, cocoa and cardamom have recorded a positive growth in production. All the remaining spice crops showed a negative growth. The maximum reduction is recorded by cured ginger (-59%) followed by black pepper (-54%).



Other food crops: During the period from 2005-06 to 2014-15, the production of tapioca is increased by 15% and sugarcane by 62%. But the production of sweet potato, drumstick, groundnut, sesamum, coconut, cotton and betel leaves show a negative growth during the last 10 years.



4.15 Leading districts of Agricultural production in Kerala

The table given below shows the first two leading districts in production of principal crops in the State and its percentage share of production as per the agricultural statistics for the year 2014-15.

Crop	1 st leading district	%	2 nd leading district	%
Rice	Palakkad	42%	Alappuzha	18%
Coconut	Kozhikkode	17%	Malappuram	16%
Tapioca	Kollam	22%	Thiruvananthapuram	20%
Banana	Palakkad	32%	Wayanad	18%
Plantain	Palakkad	20%	Thiruvananthapuram	14%
Ginger	Wayanad	48%	Palakkad	22%
Turmeric	Palakkad	24%	Kozhikode	12%
Arecanut	Kasaragod	41%	Malappuram	18%
Cashew	Kannur	62%	Kasaragode	21%
Tamarind	Palakkad	39%	Thiruvananthapuram	11%
Black Pepper	Idukki	59%	Wayanad	12%
Cardamom	Idukki	94%	Wayanad	4%
Tea	Idukki	70%	Wayanad	24%
Coffee	Wayanad	84%	Idukki	12%
Vegetables*	Palakkad	15%	Idukki	13%
Drumstick	Plakkad	22%	Thiruvananthapuram	16%

Sweet potato	Palakkad	32%	Malappuram	25%
Green Chilly	Palakkad	22%	Thiruvananthapuram	14%
Betel leaves	Malappuram	44%	Alappuzha	11%
Mango	Kannur	13%	Kollam	13%
Jack	Idukki	21%	Kollam	9%
Pappaya	Thiruvananthapuram	15%	Kannur	11%
Pineapple	Eranakulam	65%	Idukki	15%
Nutmeg	Eranakulam	39%	Thrissur	28%
Clove	Idukki	62%	Kottayam	13%
Cocoa	Idukki	74%	Ernakulam	6%
Rubber	Kottayam	21%	Pathanamthitta	10%
Sesamum	Malappuram	41%	Kollam	32%

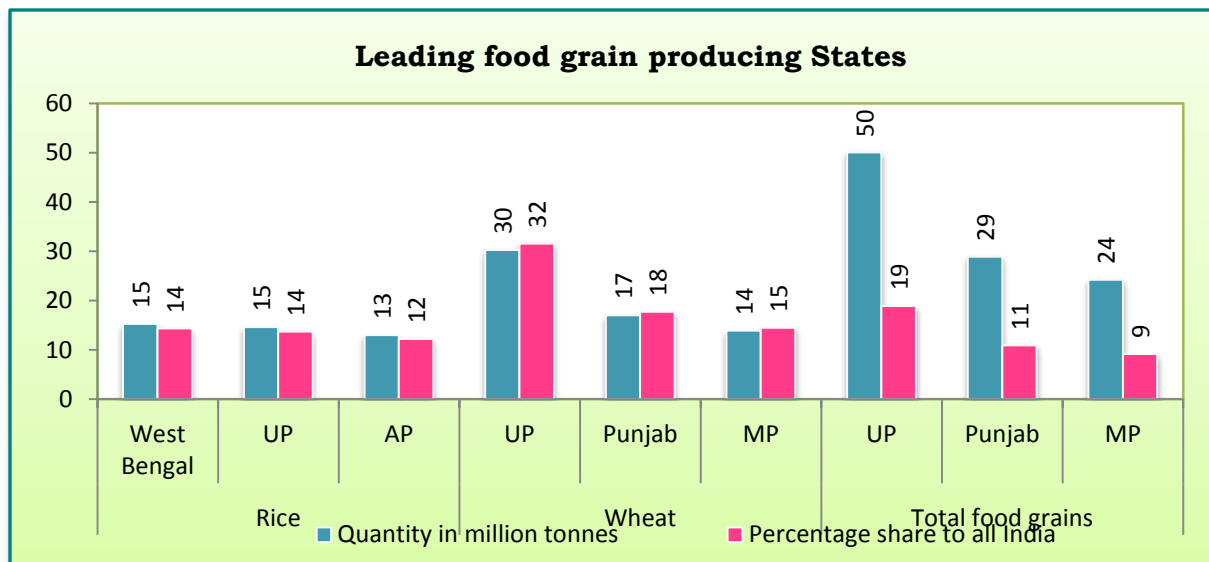
* Based on area under vegetable cultivation in 2014-15 Agricultural Year

4.16 Leading food grains producing States in India

The leading three States in production of rice, wheat and total food grains in 2013-14 in India and their production share to all India total production is given in the following table.

Produce	State	Quantity in million tonnes	Percent
Rice	West Bengal	15.31	14.4
	UP	14.63	13.7
	AP	13.03	12.2
	All India	106.54	100
Wheat	UP	30.25	31.5
	Punjab	17.04	17.8
	MP	13.93	14.5
	All India	95.91	100
Total food grains	UP	50.05	18.9
	Punjab	28.90	10.9
	MP	24.24	9.2
	All India	264.77	100

Source: *Agricultural Statistics at a Glance, 2014, M/o Agriculture, Govt of India*



4.17 Agricultural production in India and State's contribution

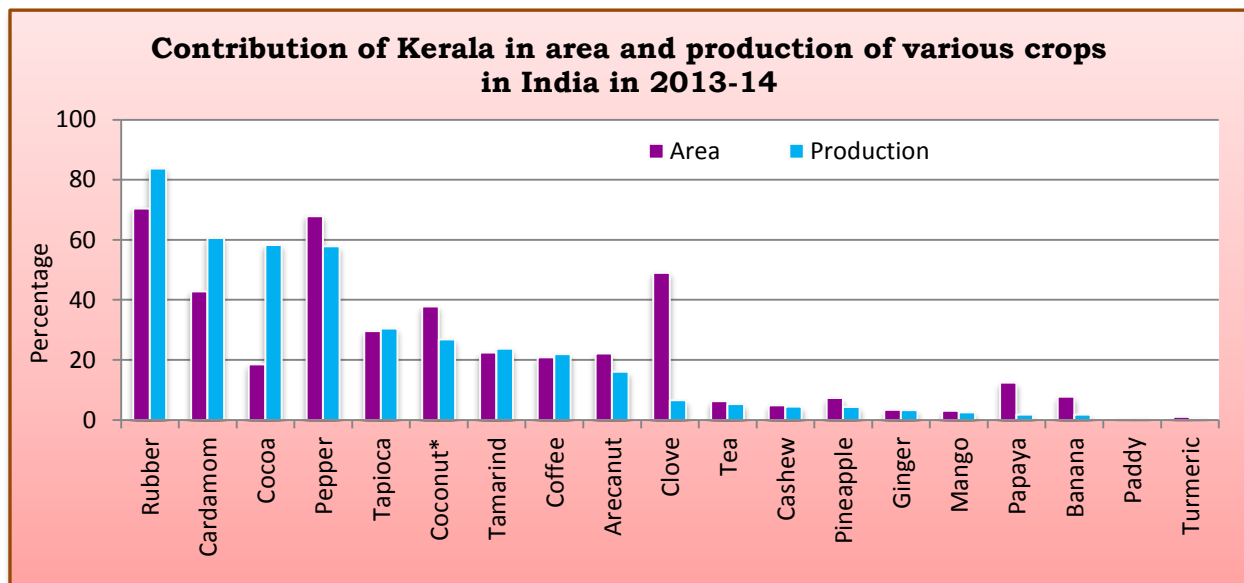
The area and production of major crops in India and Kerala as per statistics in 2013-14 agricultural year and the share of Kerala to all India are given in the following table. (Area in '000 Hectares & Production in '000 MT)

Crop	All India		Kerala		% share of Kerala in	
	Area	Production	Area	Production	Area	Production
Paddy	43950.00	106540.00	199.61	564.32	0.45	0.53
Banana	802.57	29724.55	62.26	531.29	7.76	1.79
Mango	2515.97	18431.33	77.15	457.06	3.07	2.48
Papaya	133.36	5639.30	16.64	103.42	12.48	1.83
Pineapple	109.88	1736.74	8.00	75.56	7.28	4.35
Tapioca	228.28	8139.43	67.58	2479.07	29.60	30.46
Arecanut	451.90	622.27	100.00	100.01	22.13	16.07
Cashew	1010.85	753.16	49.10	33.37	4.86	4.43
Cocoa	71.37	21.13	13.25	12.32	18.57	58.30
Coconut*	2140.49	22088.00	808.64	5921.00	37.78	26.81
Cardamom	92.84	21.28	39.73	12.91	42.79	60.67
Clove	2.06	1.07	1.01	0.07	49.03	6.54
Ginger	132.62	655.06	4.53	21.52	3.42	3.29
Turmeric	232.67	1189.89	2.43	6.25	1.04	0.53
Pepper	123.81	50.87	84.06	29.41	67.89	57.81
Tamarind	58.59	188.13	13.17	44.68	22.48	23.75
Tea	563.98	1208.78	35.01	63.48	6.21	5.25
Coffee	409.69	304.50	85.35	66.64	20.83	21.89
Rubber	778.40	774.00	548.22	648.22	70.43	83.75

* Production of coconut in Million Nuts

Source: *Agricultural Statistics at a Glance 2014 & Indian Horticulture Database 2014*,
M/o Agriculture, Govt of India

The following bar chart shows the percentage share of our State in area and production of major crops in India as per the data pertaining to agricultural year 2013-14. The crops contributing more than 50 percent share in production are rubber, cardamom, cocoa and pepper. Our State tree coconut lost its monopoly both in area and production. Paddy and turmeric have negligible (0.5%) contribution.

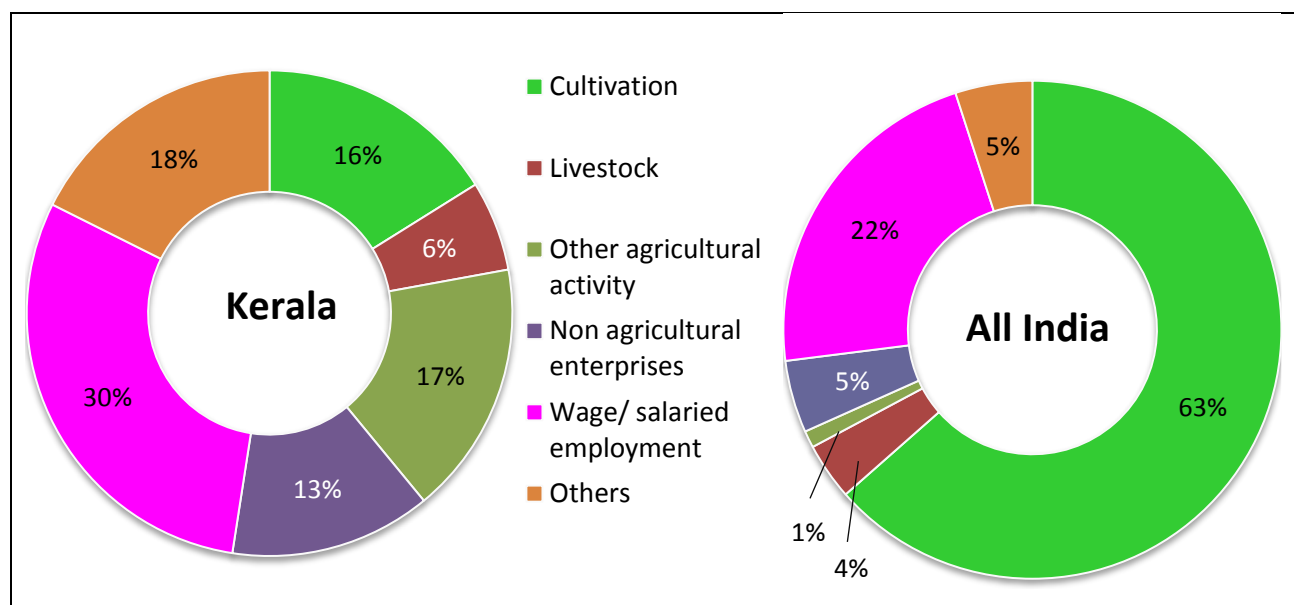


Chapter 5

EXPENSES IN CROP PRODUCTION

5.1 Distribution of agricultural households by major source of income

In Kerala, 16% of agricultural households have cultivation as the principal source of income whereas it is 63% in all India. 6% of households depend on livestock and dairying activities for their principal source of income and 30% on wage and salaried employment. The following pie charts show the percentage distribution of agricultural households in Kerala and all India according to their principal source of income as per the findings of the socio economic survey conducted by NSSO during 2012-13.



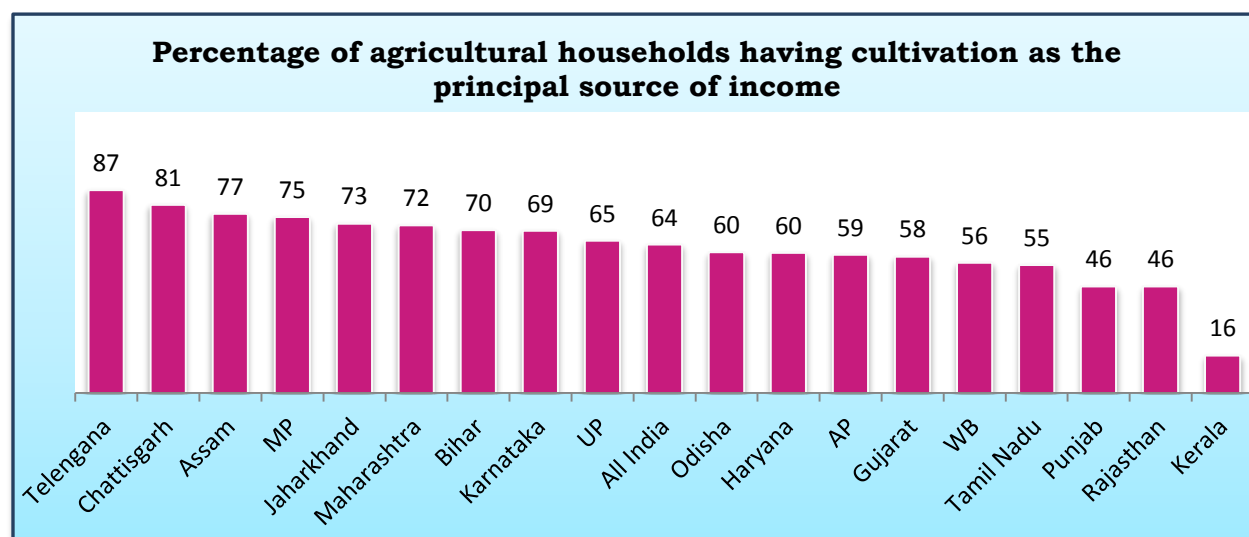
The following table shows the distribution of agricultural households by major source of income for every 1000 agricultural households in Kerala and all India.

	Category of occupation	Kerala	All India
1	Cultivation	161	635
2	Livestock	60	37
3	Other agricultural activity	169	11
4	Non agricultural enterprises	134	47
5	Wage/ salaried employment	299	220
6	Others *	176	50
	All households	1000	1000

* Others includes income from remittance and pension also.

Source: Key Indicators of Situation of Agricultural Households in India, NSS 70th Round, 2013, NSSO, Govt of India

While comparing the proportion of agricultural households having crop production as the principal source of income among the States in the country, it is seen that Kerala is in the bottom position with 16 percent. Telengana and Chattisgarh are in the first two positions with 87 percent and 81 percent respectively. The following chart shows a comparison of the proportion of households engaged in crop production (cultivation) with other States and all India average.



Note: As per NSSO concept, an agricultural household is defined as a household receiving some value of produce from agricultural activities (e.g. cultivation of field crops, horticultural crops, fodder crops, plantation, animal husbandry, poultry, fishery, piggery, bee-keeping, vermiculture, sericulture, etc.) during last 365 days at the time of field survey.

Source: Key Indicators of Situations of Agricultural households in India, 2013, NSS 70th Round, NSSO, Govt of India

5.2 Expenses and Receipts for Crop Production

The following table shows the average monthly expenses for crop production and its receipts per agricultural household for major States during the agricultural year 2012-13 (July 2012 to June 2013). The major crops harvested during the year only are considered for estimating the expenses and receipts.

	State	Average total expense (in Rs.)	Average total receipts (in Rs.)	Estimated No. of households in crop production (in Lakhs)
1	Andhra Pradesh	6191	8482	31.75
2	Assam	788	5197	32.69
3	Bihar	1454	3358	63.87
4	Chattisgarh	1128	4551	25.03
5	Gujarat	2250	5773	32.79
6	Haryana	6228	17144	11.31
7	Jharkhand	571	2049	21.94
8	Karnataka	2779	7908	40.77
9	Kerala	2270	5872	13.76
10	Madhya Pradesh	2284	6538	56.60
11	Maharashtra	2654	6675	68.05
12	Odisha	1001	2438	43.99
13	Punjab	11768	28117	9.36
14	Rajasthan	1730	5192	58.70
15	Tamil Nadu	2358	5012	25.15
16	Telangana	4267	8666	24.39
17	Uttar Pradesh	1790	4912	165.03
18	West Bengal	1819	2836	61.21
	All India	2192	5542	829.48

Source: Key Indicators of Situations of Agricultural households in India, 2013, NSSO

5.3 Item wise average monthly expenditure and receipts for crop production

The following table shows the item wise average monthly expenditure and receipts for crop production per agricultural household engaged in crop production in Kerala in comparison with the neighboring State and all India average. (in Rs.)

	Item	Kerala	All India	Tamil Nadu	Karnataka	Andhra Pradesh
	Expense					
1	Seed	105	250	337	270	464
2	Fertilizer/ manure	573	526	642	821	1181
3	Plant protection chemicals	73	165	166	209	709
4	Irrigation	6	70	35	28	53
5	Minor repair & maintenance of machinery & equipments	16	43	62	59	34
6	Interest	86	32	39	74	221
7	Lease rent for land	186	158	55	79	1212
8	Human labour	1074	461	702	749	1517
9	Animal labour	14	32	35	110	112
10	All other expenses	136	455	465	380	688
	Total expense	2270	2192	2358	2779	6191
	Output (Value of)					
1	Products	5516	5200	4751	7442	8203
2	By products	307	329	178	448	262
3	Pre harvest sale	49	13	82	19	18
	Total output	5872	5542	5012	7098	8482
	Estimated no. of agri hh engaged in crop production (in lakhs)	13.76	829.48	25.15	40.77	31.75
	% of agri hh engaged in crop production	98%	92%	77%	96%	88%

Source: Key Indicators of Situations of Agricultural households in India, 2013, NSSO, Govt of India

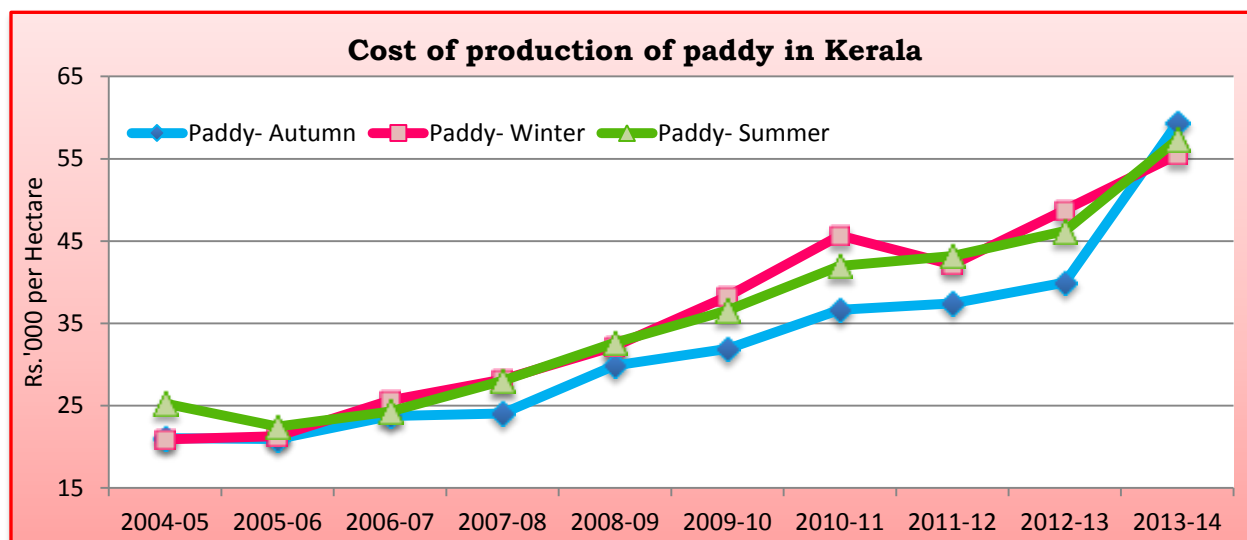
5.4 Cost of cultivation of Paddy in Kerala

The cost of cultivation of paddy in autumn (Virippu), winter (Mundakan) and summer (Puncha) seasons during the period of last 10 years in Kerala is given below. For component wise data on cost of cultivation the tables given in annexure may be referred.

Rs. per hectare

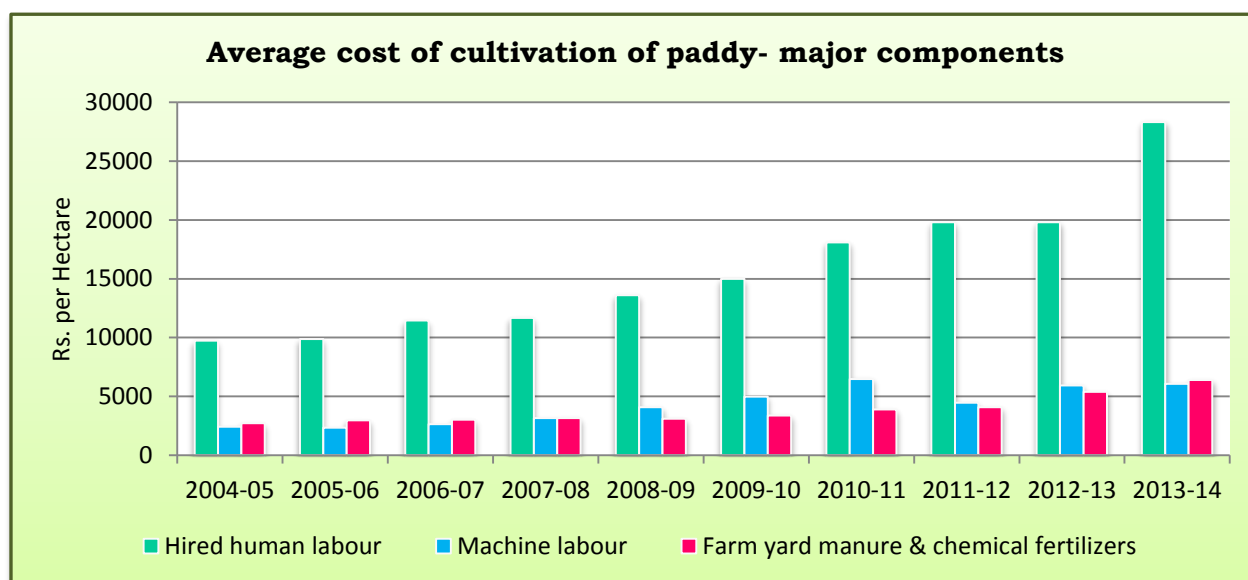
Crop	Paddy-Autumn	% increase	Paddy-Winter	% increase	Paddy-Summer	% increase
2004-05	21063	-4.2	20886	0.3	25241	15.3
2005-06	20913	-0.7	21284	1.9	22437	-11.1
2006-07	23727	13.5	25647	20.5	24274	8.2
2007-08	24024	1.3	28181	9.9	28001	15.4
2008-09	29862	24.3	32199	14.3	32652	16.6
2009-10	31911	6.9	38287	18.9	36566	12.0
2010-11	36657	14.9	45675	19.3	41990	14.8
2011-12	37406	2.0	42127	-7.8	43185	2.8
2012-13	39931	6.8	48792	15.8	46201	7.0
2013-14	59344	48.6	55493	13.7	57330	24.1

It is seen that the cost of cultivation during the autumn season is less than those of winter and summer seasons except in 2013-14. On examination of the cost of each component, it is observed that the cost of farm yard manure and fertilizers is comparatively less in autumn season. The reason may be due to higher content of nutrients in soil due to cultivation of other seasonal crops like pulses in wet land during summer season. The following trend chart depicts the change in total cost of production of paddy in the State in autumn, winter and summer seasons during the period of ten years from 2004-05 to 2013-14.



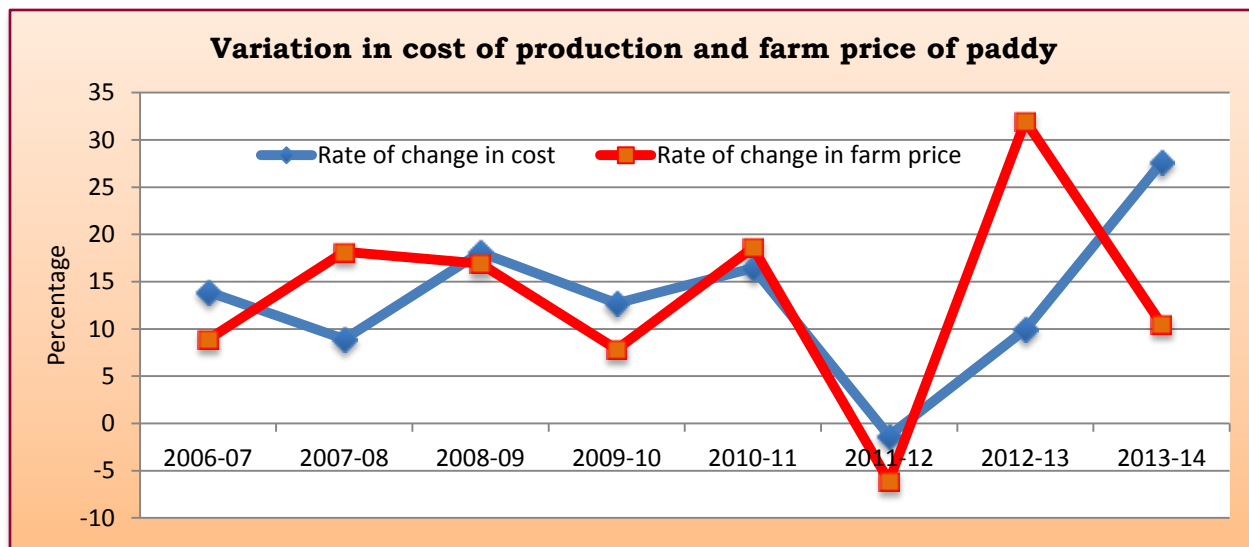
Labour charges and cost of application of fertilizer and farm yard manures are the cost components which increases the cost of cultivation of paddy in the State. Labour cost is the highest cost factor in paddy cultivation followed by machine labour and cost of manure & fertilizers.

The following graph depicts the change of major components in cost of cultivation of paddy from the agricultural year 2004-05 to 2013-14. It can be seen that, even though there is year to year up or fall, the cost of hired human labour has been increased by 191 percent during the last 10 years, machine labour by 151 percent and manure and fertilizer by 135 percent.



5.5 Comparison of cost of production and farm price of paddy

While comparing the rate of change of the average cost of production of paddy in three seasons over the previous years with that of farm price during the agricultural year from 2006-07 to 2013-14, it is seen that both show almost the same trend except in 2006-07, 2007-08 and 2013-14. But the percentage increase or decrease is not uniform on cost and farm price. During 2012-13, the farm price has increased by 32% whereas the cost of production of paddy by 10%, but in 2013-14 it is reversed. The following graph depicts this aspect.



5.6 Cost of cultivation of paddy in other States

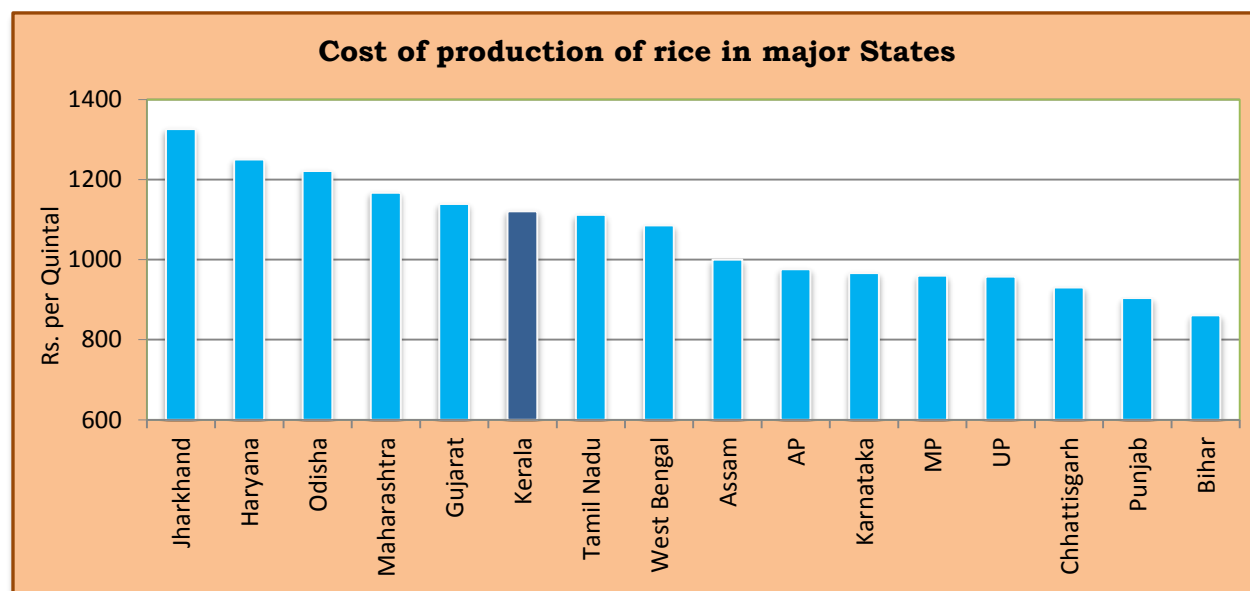
The following table gives a comparison of cost of cultivation of paddy and cost of production of rice in major rice producing States in the country in 2011-12 based on the comprehensive scheme for studying cost of cultivation of principal crops by Government of India.

State	Cost of cultivation of paddy (Rs. per Hectare)	Cost of production of rice (Rs. per Quintal)
AP	37946	976.36
Assam	22381	999.76
Bihar	20934	861.05
Chhattisgarh	19621	930.42
Gujarat	28175	1139.55
Haryana	36477	1250.61
Jharkhand	18824	1326.58
Karnataka	39193	966.14
Kerala	38557	1120.82
Maharashtra	35253	1167.35
MP	18287	960.34
Odisha	27243	1221.44
Punjab	31248	904.30
Tamil Nadu	46453	1111.90
UP	28147	957.83
West Bengal	37959	1085.76

Source: Agricultural Statistics, 2014, M/o Agriculture, Govt of India

Note: The cost mentioned above includes all expenses in cash and kind incurred in production of paddy by owner, rent paid for leased in land and cost of household labour imputed on the basis of statutory wage rate or the actual market rate whichever is higher.

The following graph depicts the State wise cost of production per quintal of rice during the year 2011-12.



5.7 Wage rate in paddy cultivation in Kerala

The wage rate for farm activities in Kerala is increasing rapidly over the years and this has been affecting the crop production sector. This situation has caused the decrease of gap between the amount received and amount paid by farmers in the State. While considering the most sensitive and traditional crop 'Paddy', the wage rate for different agricultural activities right from ploughing/ bunding to harvesting for the last 10 years from 2006 to 2015 is shown in the following table.

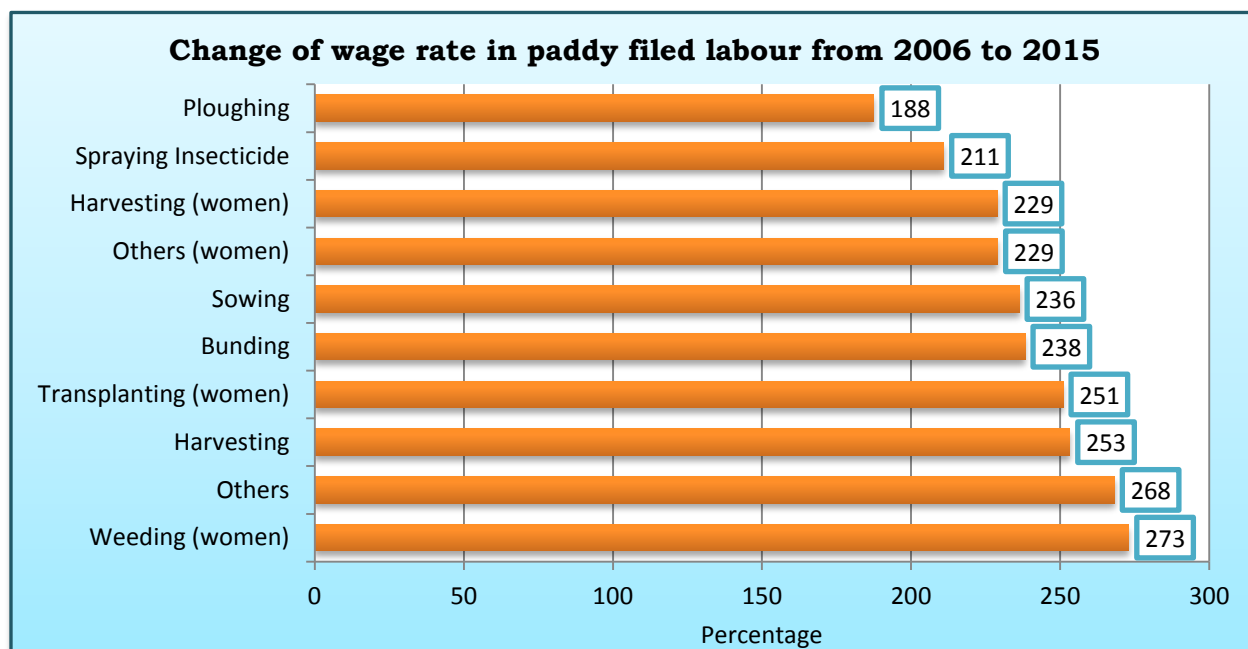
Wages in Rs.

Wage Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015*
Ploughing	233	266	290	337	370	427	504	587	632	671
Bunding	159	177	200	232	273	333	391	465	511	536
Sowing	148	159	175	204	244	299	354	427	467	497
Spraying Insecticide	167	182	206	238	277	343	396	454	493	519
Harvesting	152	163	186	224	263	320	375	463	512	538

Others	154	171	196	225	270	331	385	466	526	569
Weeding (women)	102	115	136	159	195	242	279	341	365	381
Transplanting (women)	110	123	142	163	196	241	279	339	371	387
Harvesting (women)	130	145	164	195	227	272	313	362	402	428
Others (women)	121	136	151	169	201	253	299	350	381	399

** Average of agricultural wages up to July 2015*

The following bar chart represents the extent of increase in wage rate of paddy field labour in Kerala from 2006 to 2015. The average increase during the period is 237%.



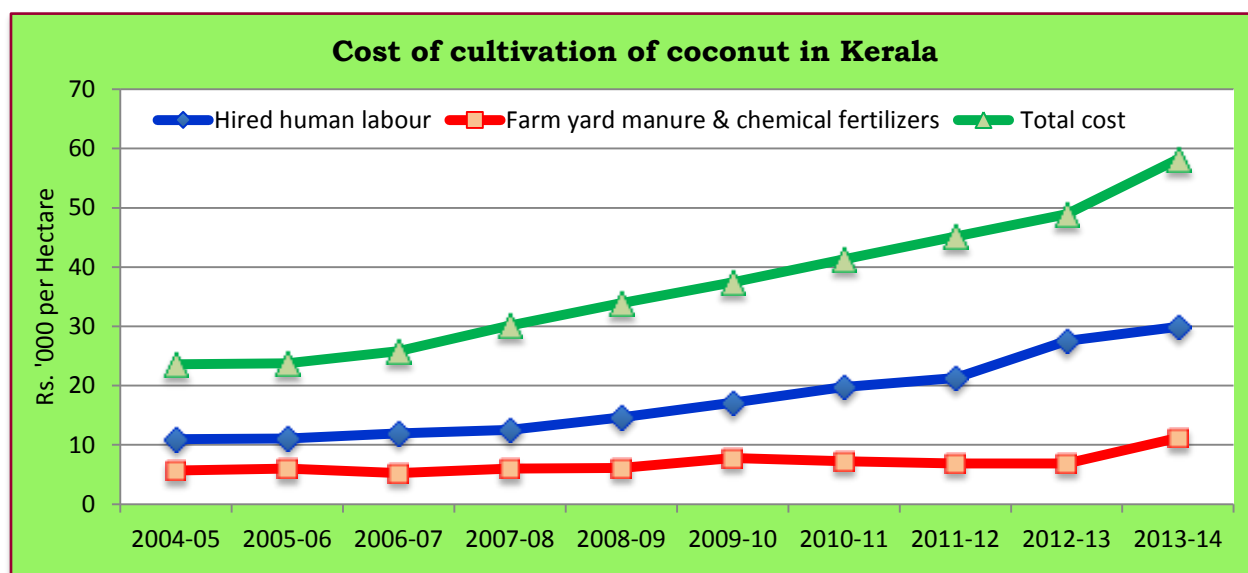
5.8 Cost of cultivation per hectare of coconut in Kerala

The total cost of cultivation of coconut in the State has increased by 146 percent during the period of ten years from 2004-05 to 2013-14. During 2004-05 the total cost was Rs.23619 per hectare and now it is Rs.58230 per hectare. Hired human labour and cost of manure and chemical fertilizers are the higher cost components compared to other components of cultivation of coconut. During the period, the cost of hired human labour has increased by 172 percent, while the cost of manure & fertilizer, the second major component, has increased by 98 percent only, and this

may be due to less application of fertilizers and other manures in coconut palm fields. The following table shows the year wise cost of above components and total cost of cultivation of coconut in Kerala during the above period. (Rs. per hectare)

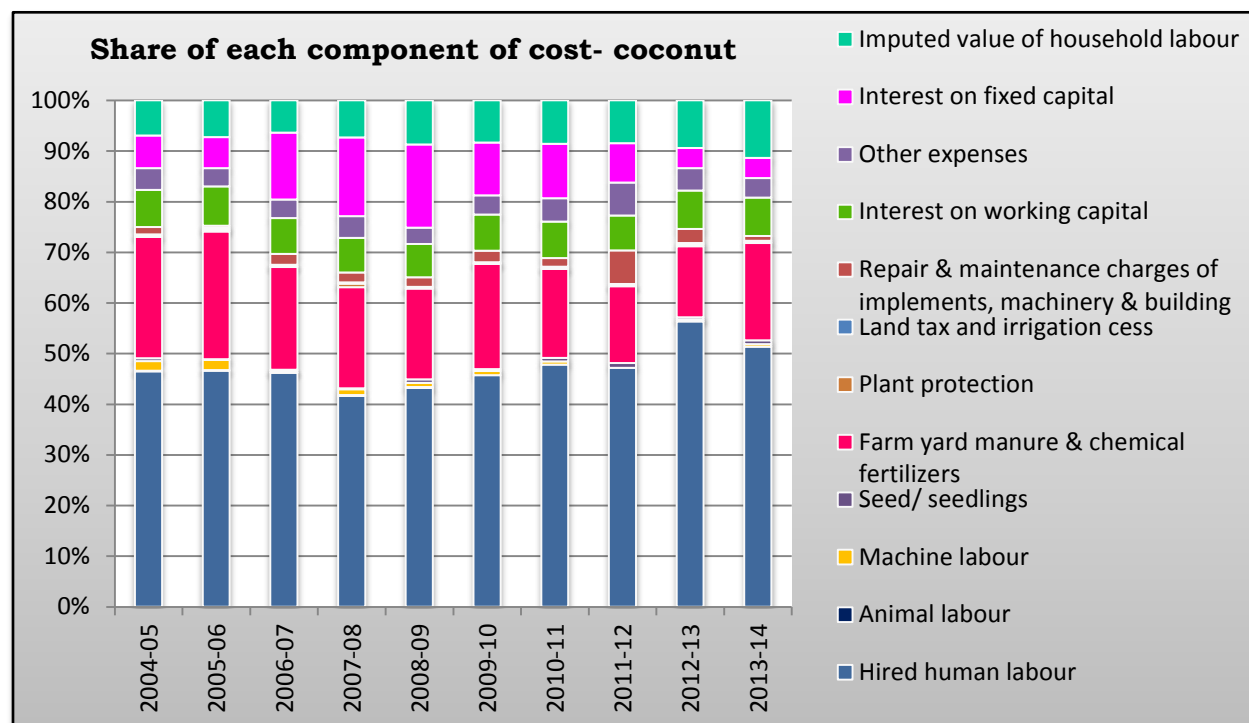
Year	Hired human labour	Farm yard manure & chemical fertilizers	Total cost
2004-05	10980	5659	23619
2005-06	11069	5992	23738
2006-07	11939	5240	25840
2007-08	12559	6008	30159
2008-09	14647	6097	33919
2009-10	17126	7796	37429
2010-11	19750	7258	41316
2011-12	21305	6840	45130
2012-13	27561	6879	48938
2013-14	29900	11183	58230

A continuous increase can be seen in the cost of human labour and a varied trend in cost of manure and fertilizers. The gap between the costs in above two components is increasing and this may be due to the fact that farmers are giving less thrust in applying manure and fertilizers in coconut fields due to low return from coconut compared to high wage rate of human labour. The trend in cost of production of coconut in the State is depicted in the following graph.



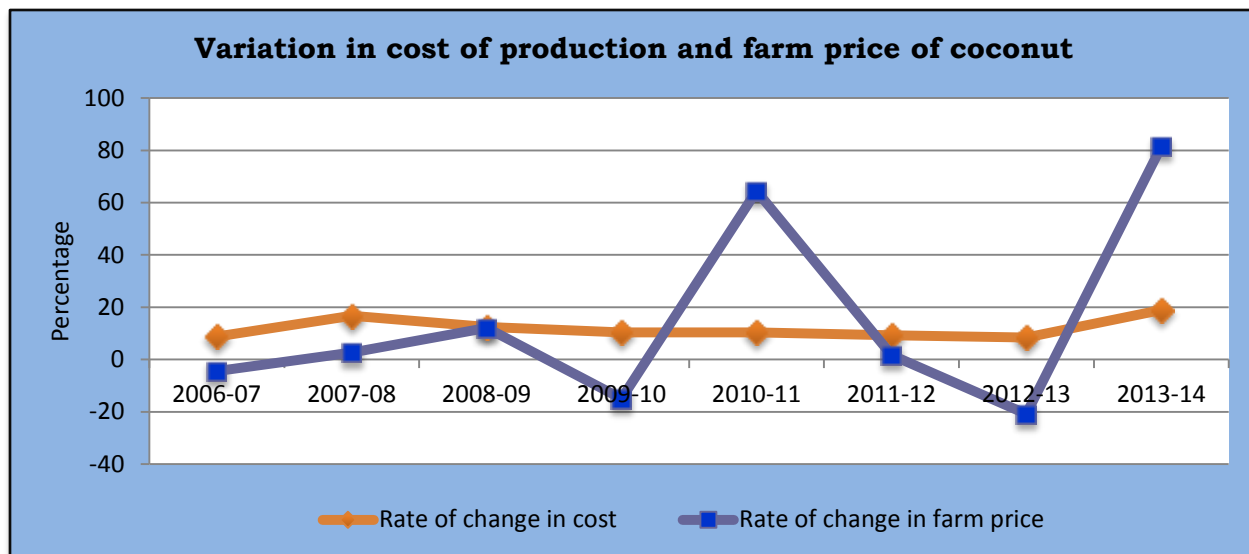
On examination of the component wise share of cost of production of coconut in the State, it is observed that, imputed value of household labour and interest on working capital are the 3rd and 4th major cost components in the cultivation of

coconut. The share of each component in the total cost of cultivation of coconut in Kerala is depicted in the following percentage bar chart.



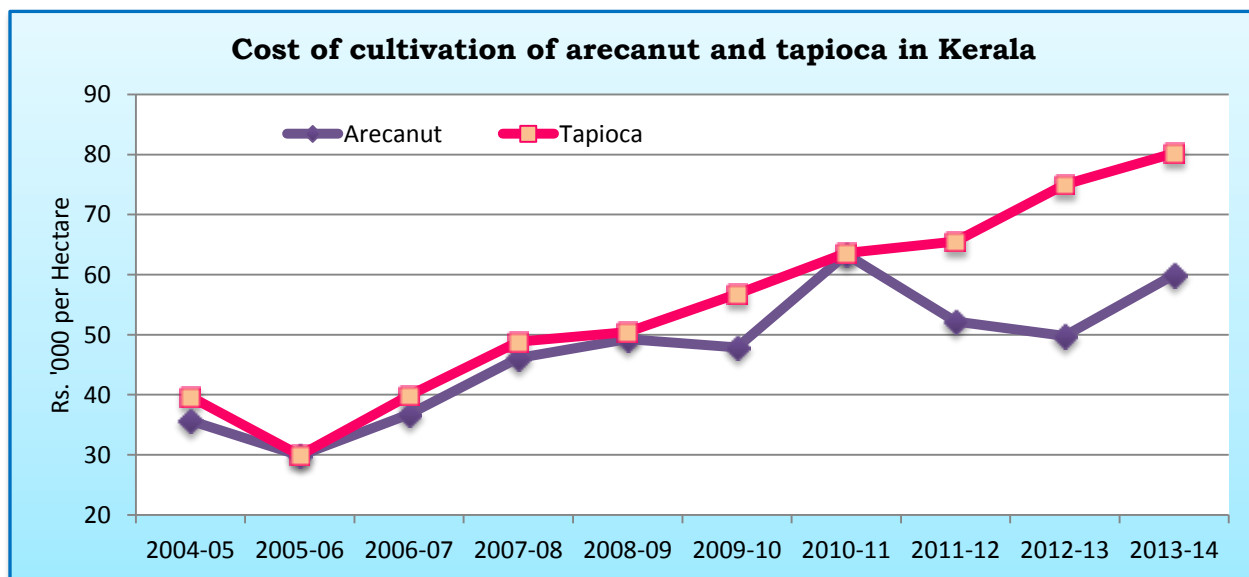
5.9 Comparison of cost of production and farm price of coconut

While comparing the rate of change of the average cost of production of coconut over the previous year with that of farm price during the agricultural year from 2006-07 to 2013-14, it is seen that the growth rate in cost of production shows a linear trend, but there is high variation in farm price during the agricultural years 2009-10, 2010-11 and 2012-13.



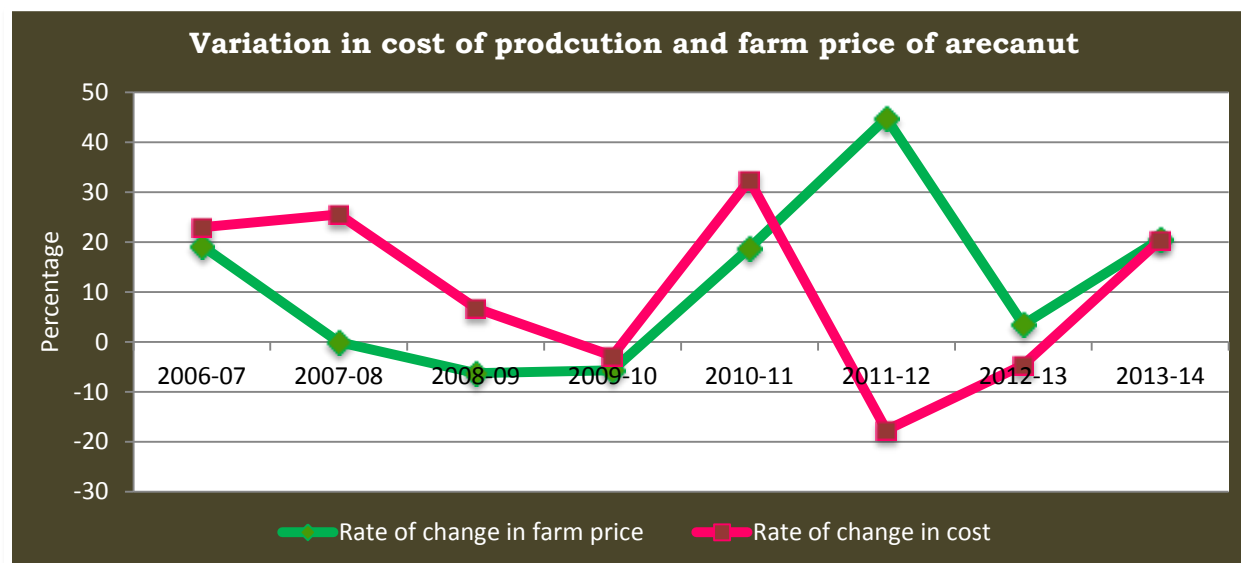
5.10 Cost of cultivation of arecanut and tapioca in Kerala

During the period 2004-05, the cost of cultivation of arecanut in the State was Rs.35656 per hectare, now it has been increased to Rs.59956 per hectare and the rate of increase during this period of 10 years is 68 percent. While considering the crop tapioca, the production cost has been increased from Rs.39668 per hectare in 2004-05 to Rs.80244 per hectare in 2013-14 and the percentage increase is 102. The following graph shows the trend in increase of cost of production of arecanut and tapioca during the period 2004-2014.



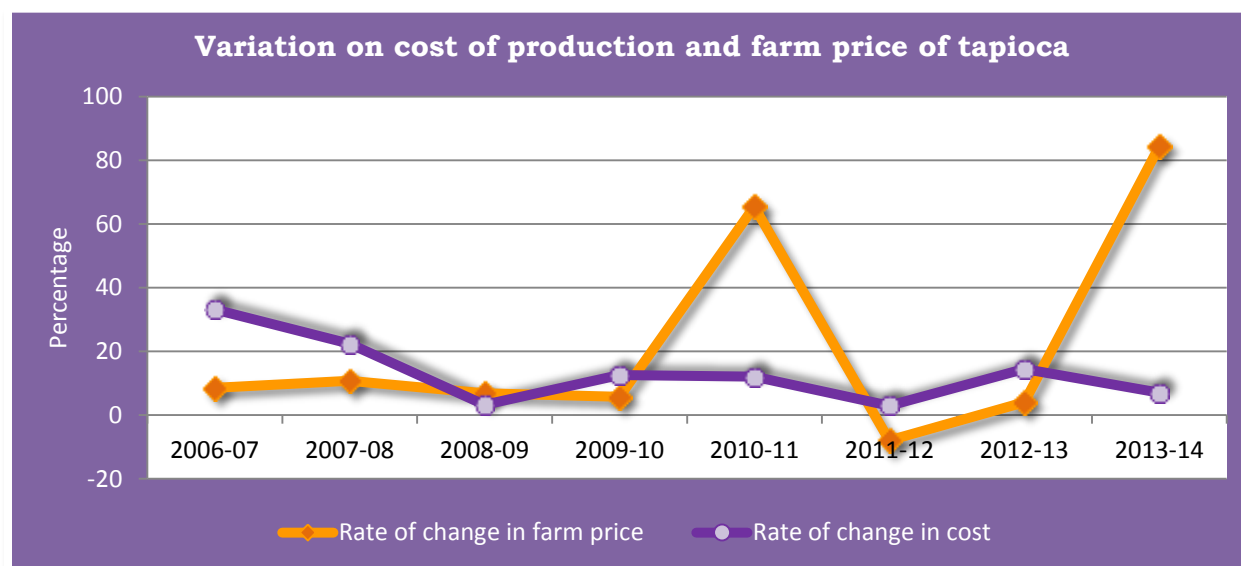
5.11 Comparison of cost of production and farm price of arecanut

While comparing the rate of change of the average cost of production of arecanut over the previous year with that of farm price during the agricultural year from 2006-07 to 2013-14, it is seen that both show a varying trend. The following graph depicts this aspect.



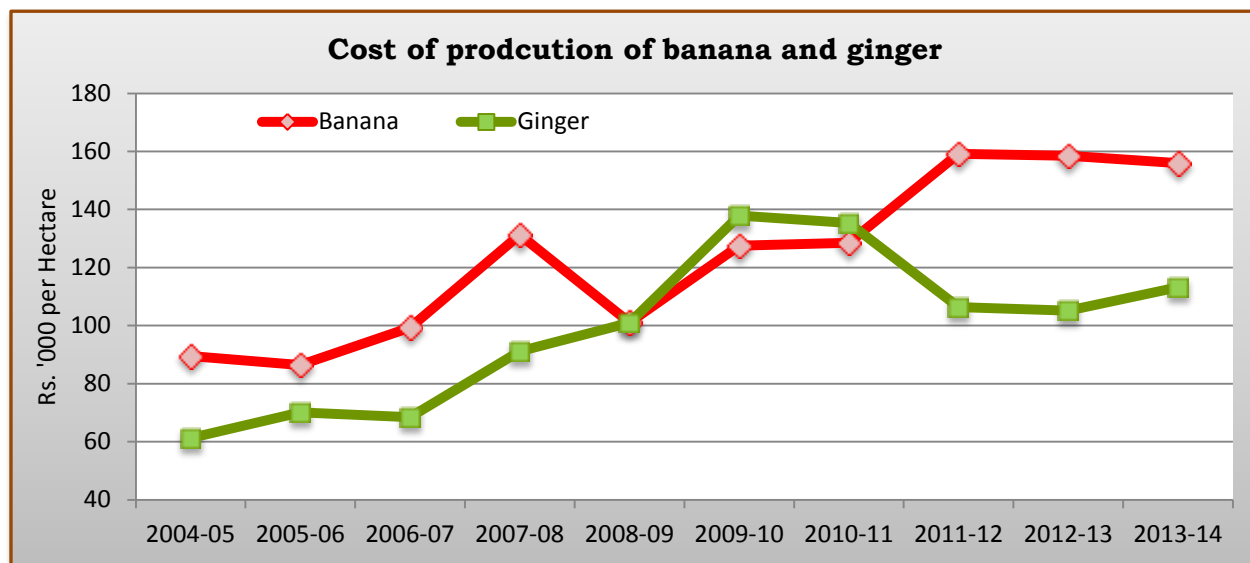
5.12 Comparison of cost of production and farm price of tapioca

The rate of change over the previous year in farm price and that in cost of production of tapioca from 2006-07 to 2013-14 is depicted in the following graph. The growth rates are not uniform over the years.



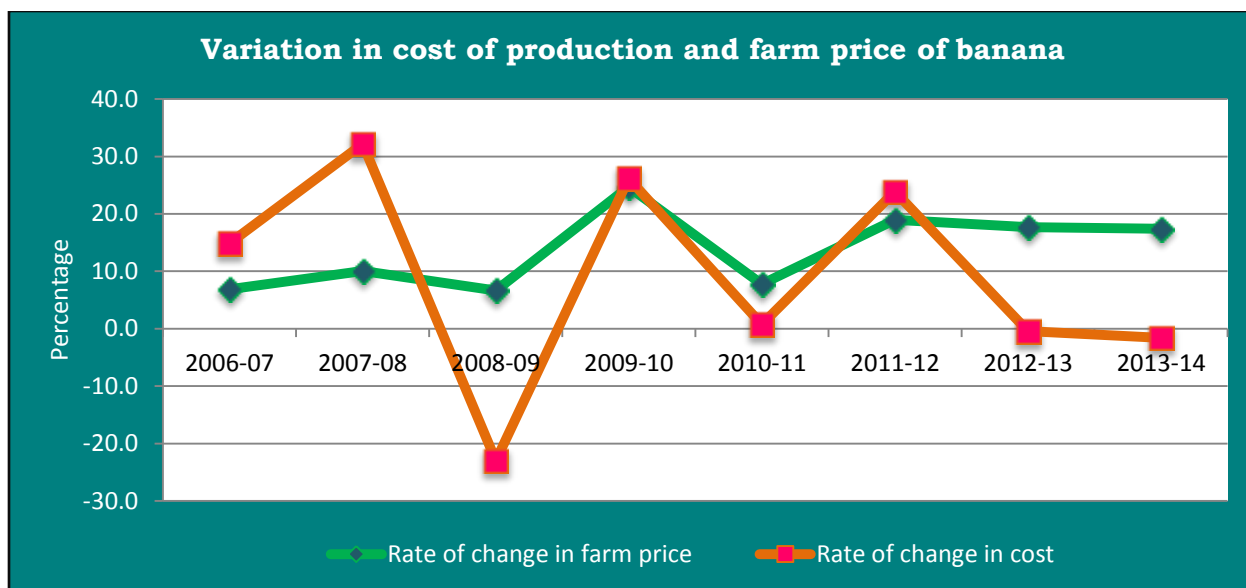
5.13 Cost of cultivation of banana and ginger

The cost of production of banana has been increased from Rs.0.89 lakhs per hectare in 2004-05 to Rs.1.56 lakhs per hectare in 2013-14 and the growth in cost during the period is 74.3 percent. Whereas the cost of ginger production increased from Rs.0.62 per hectare to Rs.1.13 lakhs per hectare during 2004-2014 and the rate of increase is 84.8 percent. The following graph shows the trend of cost of production of banana and ginger from 2004-05 to 2013-14 in the State.



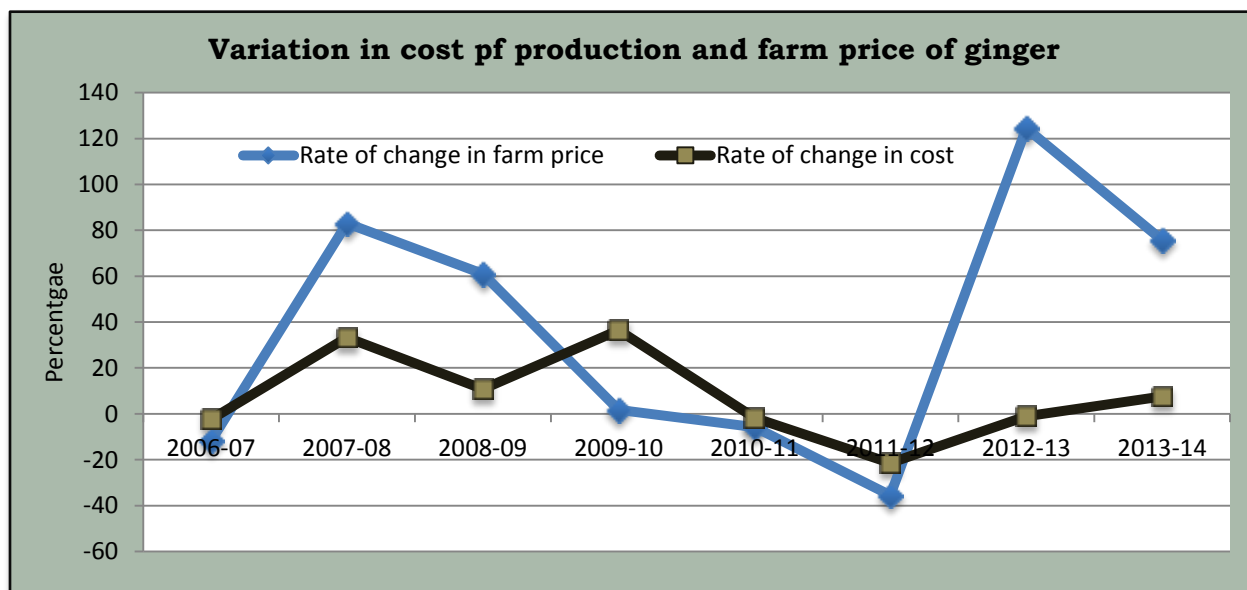
5.14 Comparison of cost of production and farm price of banana

While comparing the rate of change of the average cost of production of banana over the previous year with that of farm price during the agricultural year from 2006-07 to 2013-14, it is observed that both show almost the same trend but there is huge variation between the two.



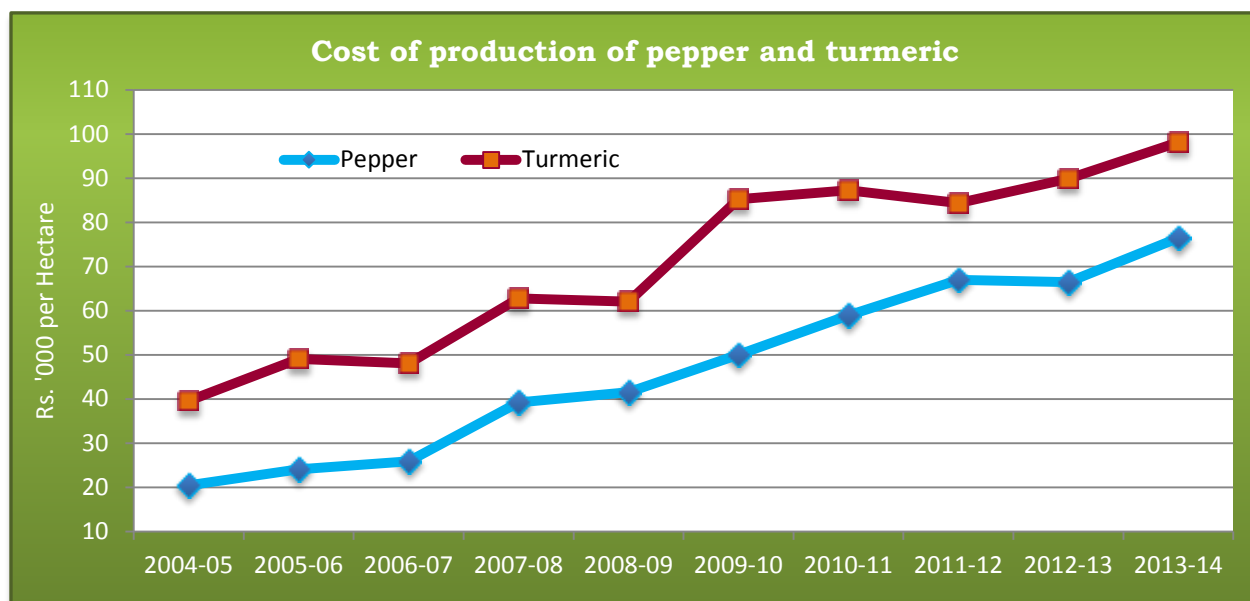
5.15 Comparison of cost of production and farm price of ginger

The fall and rise in the following trend chart shows that the growth rate in farm price and cost of cultivation of ginger are not uniform over the years. A sudden enhance in farm wholesale price is recorded during 2012-13.



5.16 Cost of cultivation of pepper and turmeric

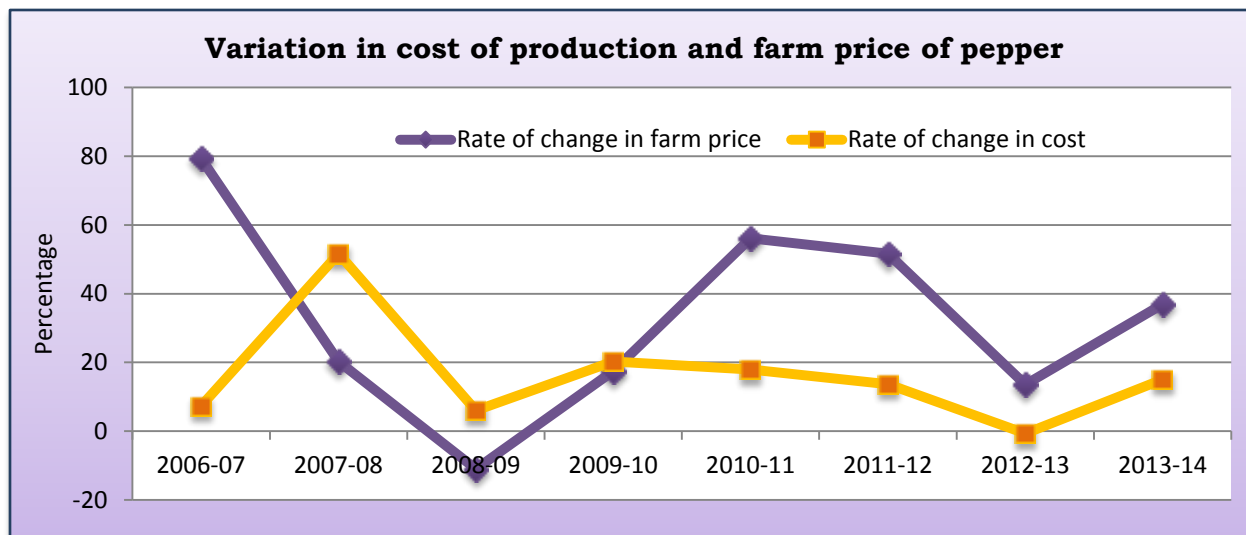
The cost of pepper cultivation in Kerala showed a record increase of 274 percent during the period from 2004-05 to 2013-14. During 2004-05, the actual cost of cultivation of pepper was Rs.20438 per hectare, and now it is Rs.76517 per hectare. Turmeric is another important spice produced in the State and its cost has increased from Rs.39591 per hectare to Rs.98154 per hectare during the above period and the rate of growth in cost is 148 percent. The following graph depicts the trend in cost of production of turmeric and pepper during the period.



For the component wise cost of production per hectare of paddy (3 seasons), coconut, arecanut, tapioca, banana, ginger, turmeric and pepper during the 10 years from 2004-05 to 2013-14 and their rate of change over the previous year and component wise share, the tables given in annexure may be referred.

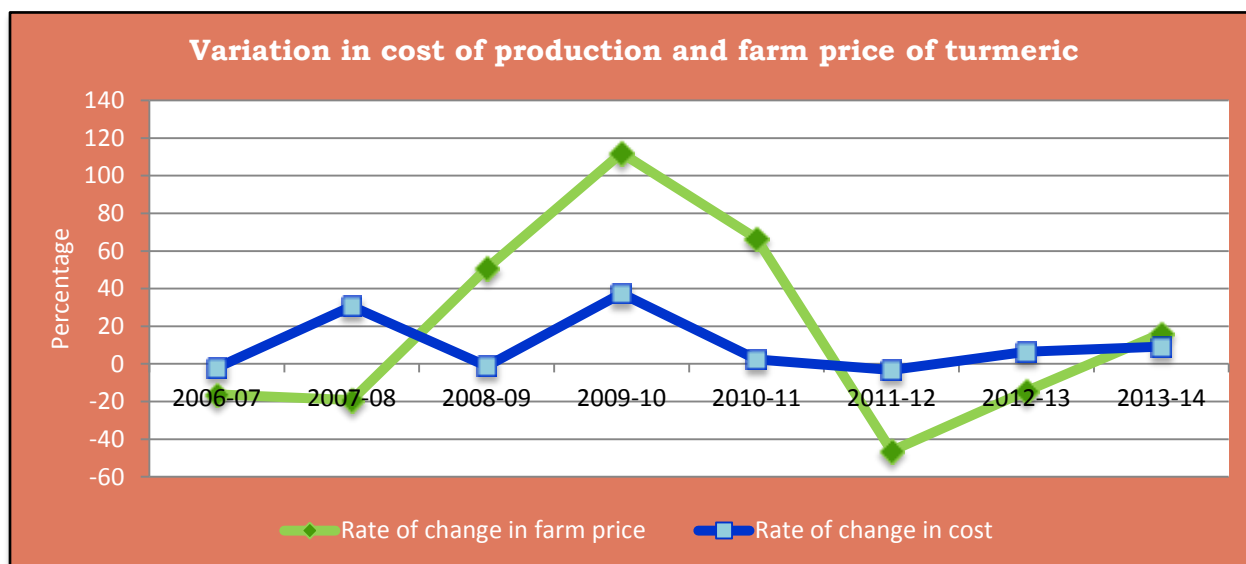
5.17 Comparison of cost of production and farm price of pepper

While comparing the rate of change of the average cost of production of pepper over the previous year with that of farm price during the agricultural year from 2006-07 to 2013-14, both shows almost the same trend except in 2006-07 and 2009-10, but the variation between the growth and decline rates is high.



5.18 Comparison of cost of production and farm price of turmeric

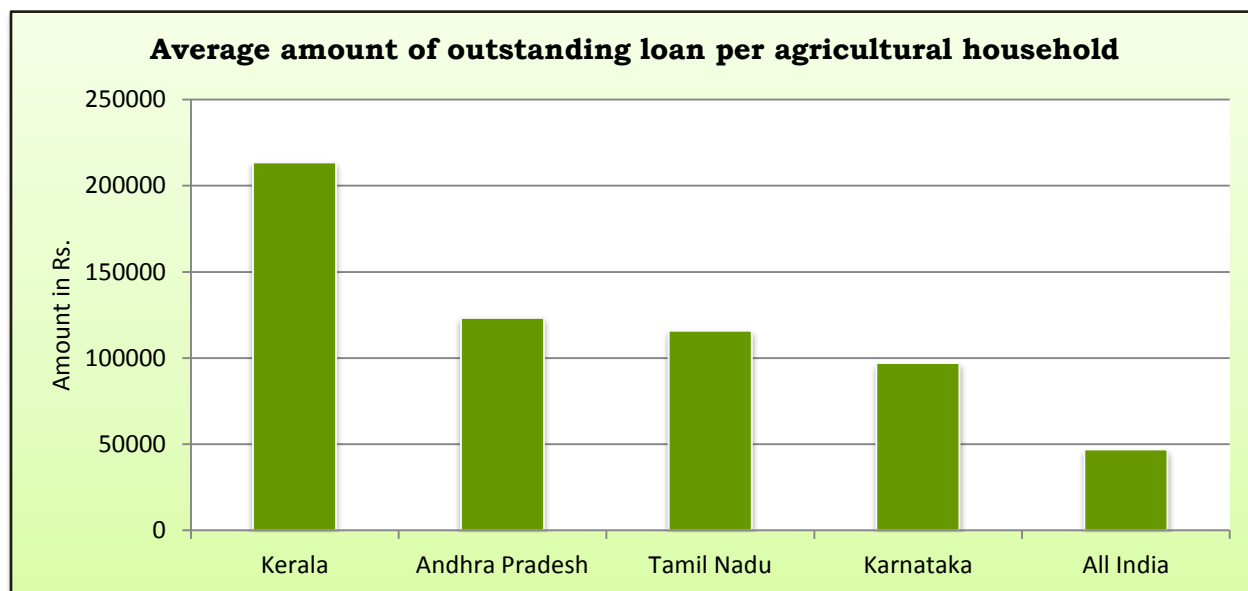
Except in 2007-08, both the trend lines representing the rate of change in farm wholesale price and cultivation cost of turmeric show almost the same trend of increase and decrease. The graph given below depicts this aspect.



5.19 Indebtedness of Farmers in Kerala

As per the latest data available, the average amount of outstanding loan per agricultural household in Kerala is Rs.213600, and this is the highest figure in India among all States, and the estimated total number of agricultural households in Kerala having agricultural loan is 10,90,800 and is 77.7% of the total agricultural

households. The following graphs shows a comparison of outstanding agricultural loan in Kerala with the all India average and neighboring States.



The following table gives the average outstanding agricultural loan amount per agricultural household, proportion of indebted agricultural households and estimated number of households having outstanding agricultural loan in Kerala and our neighboring southern States in India.

State	Average outstanding loan amount per agricultural household (Rs.)	Proportion of indebted agricultural households	Estimated no. of households having outstanding agricultural loan
Kerala	213600	77.7%	1090800
Tamil Nadu	115900	82.5%	2678000
Karnataka	97200	77.3%	3277500
Andhra Pradesh	123400	92.9%	3342100
All India	47000	51.9%	46848100

Source: Key indicators of situations of Agricultural households in India, 2013, NSS 70th Round, NSSO, Govt of India

Chapter 6

CONSUMPTION AND REQUIREMENT OF FOOD

6.1 Consumption pattern of farmers and agricultural labourers

The following table shows the average monthly percapita consumer expenditure (in Rs. based on modified mixed reference period) of farmer households (self employed in agriculture) and casual agricultural labour households in comparison with the other type of households in rural areas in Kerala and India.

Household type	Kerala	India
Self employed in agriculture	2989	1436
Self employed in non agriculture	2932	1509
Regular wage/ salary earning	3029	2002
Casual labour in agriculture	1933	1159
Casual labour in non agriculture	2081	1238
Others	3569	1893
All households	2669	1430

Source: NSS Report on Household Consumer Expenditure across Socio Economic Groups, 2011-12, NSS 68th Round, NSSO, Govt of India

It is observed that Kerala's consumption pattern is much different than other States and the monthly consumption expenditure is much higher in all class of households including farmer households and agricultural labour households. While on comparison of these figures with other States, it can be seen that the consumption expenditure of rural farmer households (self employed in agriculture) in Kerala is in the 2nd highest after Punjab (Rs.3062). While in the case of agricultural labour households, Kerala is in 2nd highest after Goa (Rs.2398).

Note:

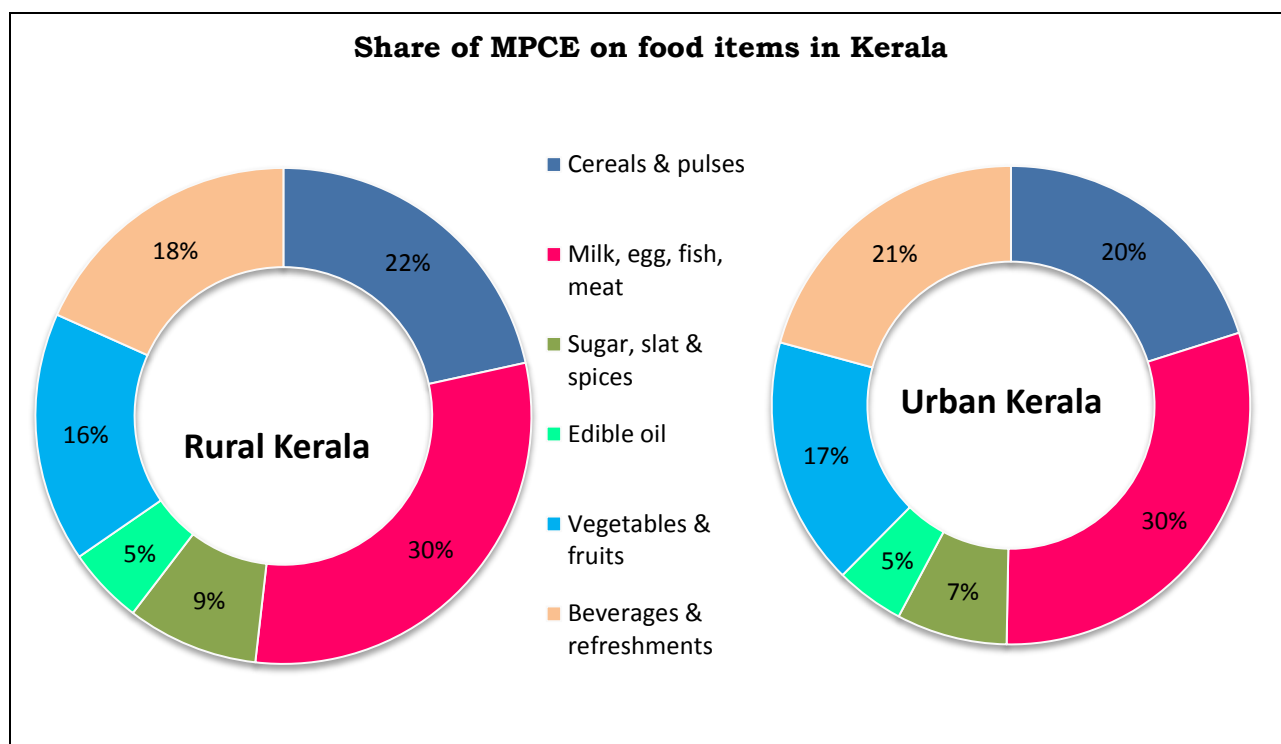
1. **Household type** is decided on the basis of the main source of income of the household
1. **Agricultural Household:** an agricultural household is defined as a household receiving some value of produce from agriculture activities (e.g. cultivation of field crops, horticultural crops, fodder crops, plantation, animal husbandry, poultry, fishery, piggery, bee-keeping, vermiculture, sericulture, etc.,) during last 365

days. However, households which were entirely agricultural labour households were excluded from agricultural households.

2. A person is considered to be engaged as **agricultural labour**, if he/ she follows one or more of the following agricultural occupations in the capacity of a wage paid manual labour, whether paid in cash or kind or both:
 - (i) farming
 - (ii) dairy farming
 - (iii) production of any horticultural commodity
 - (iv) raising of livestock, bees or poultry
 - (v) any practice performed on a farm as incidental to or in conjunction with farm operations (including forestry and timbering) and the preparation for market and delivery to storage or to market or to carriage for transportation to market of farm produce. Further, 'carriage for transportation' refers only to the first stage of the transport from farm to the first place of disposal.

6.2 Percapita consumption expenditure on Food items in Kerala

The following pie charts show the share of monthly percapita consumption expenditure on food items by rural and urban peoples in Kerala.



The following table shows the monthly percapita consumption expenditure (MPCE based on URP [Uniform Reference Period]) on food items in Kerala and all India based on the estimates obtained in socio economic surveys conducted by NSSO, Govt of India during the year 2011-12. (Figures in Rs.)

Item	Rural		Urban	
	Kerala	All India	Kerala	All India
Cereal	141.52	153.13	155.67	175.52
Gram	7.15	2.15	8.09	2.92
Cereal substitutes	8.54	0.88	4.59	1.27
Pulses and pulse products	34.48	39.73	39.47	51.55
Milk & milk products	89.15	116.13	119.88	186.47
Sugar	24.81	23.64	26.19	27.69
Salt	2.22	2.46	2.33	2.75
Edible oil	44.55	48.22	48.08	63.62
Egg, fish, meat	179.81	45.62	192.02	66.94
Vegetables	60.01	61.88	66.12	81.4
Fresh fruits	79.38	19.18	99.17	42.02
Dry fruits	5.53	5.59	8.32	13.85
Spices	49.21	28.78	48.86	36.99
Beverages & refreshments	162.78	74.59	214.64	169.9
Total Food Expr	889.11	621.96	1033.43	922.91
Total non food Expr	1620.81	656.98	2032.24	1476.33
Total Expenditure	2509.92	1278.94	3065.67	2399.24
% of Food Expr	35%	49%	34%	38%

Source: Key Indicators of Household Consumer Expenditure in India 2011-12, NSS 68th Round, NSSO, Govt of India

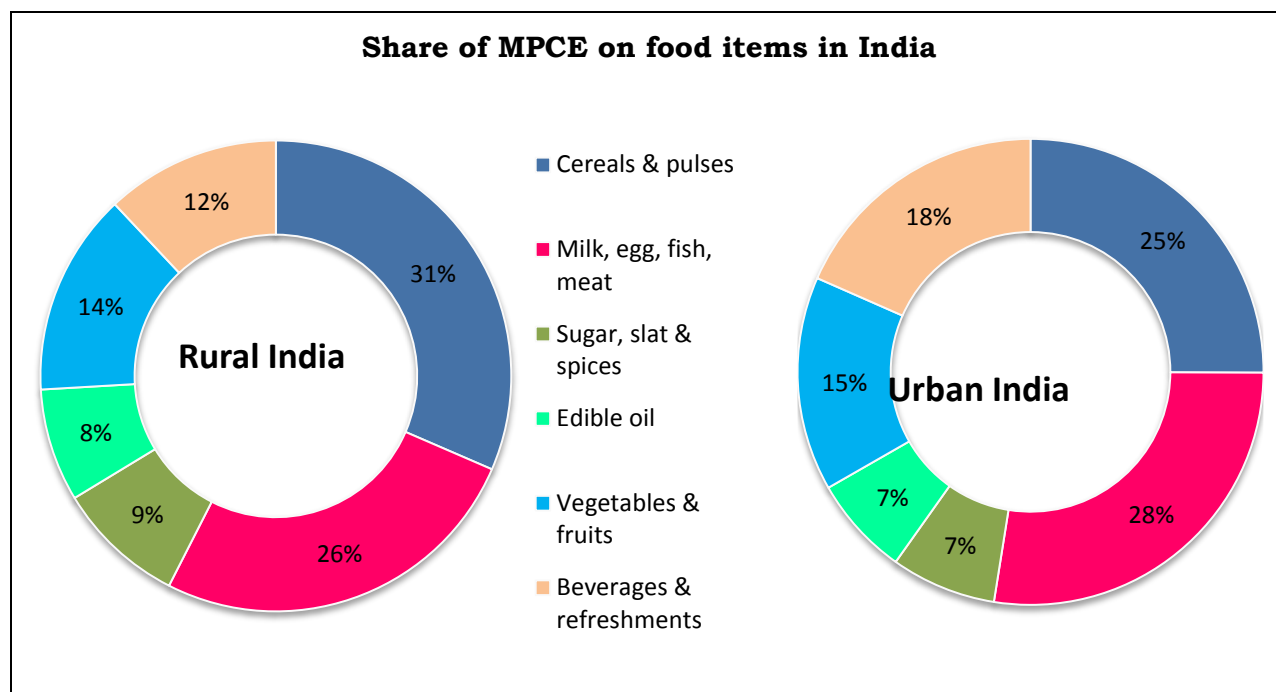
It is seen that 35% of the monthly total expenditure of a Rural Keralites is for food expenditure, while this is 34% in urban area. At all India level, these shares are 49% and 38% respectively.

Note:

1. **MPCE based on URP** is estimated based on the household consumer expenditure on each item recorded for a reference period of last 30 days (preceding the date of survey)
2. **Household consumer expenditure** is the expenditure incurred by a household on domestic consumption during the reference period. Expenditure incurred

towards productive enterprise of household is excluded from household consumer expenditure.

The following pie charts show the share of monthly percapita consumption expenditure on food items by rural and urban peoples in all India.



6.3 Consumption of cereals, oils, vegetables and fruits in Kerala

The following table shows the monthly percapita consumption of cereals, oils, vegetables and fruits of peoples in Kerala as per the finding of NSS surveys conducted during the period 2009-10. The item wise average quantity of consumption and their values in rural and urban areas are provided in the table.

Item	Quantity (in Kg)		Value (in Rs.)	
	Rural	Urban	Rural	Urban
Cereals, pulses				
Rice & rice products	7.66	7.40	130.74	137.21
Wheat & wheat products	0.88	1.09	16.81	22.44
Total cereals	8.56	8.52	147.99	160.48
Cereal substitutes	0.63	0.39	5.86	3.71
Pulses and pulse products	0.63	0.72	34.44	39.93
Edible oils				
Coconut Oil	0.54	0.55	30.38	31.26
Other oils	0.09	0.10	4.88	5.85

Total Oil	0.62	0.65	35.26	37.11
Vegetables				
Potato	0.37	0.39	6.95	7.37
Onion	0.68	0.72	12.96	13.73
Carrot	0.14	0.18	3.27	4.38
Pumpkin	0.15	0.11	2.06	1.60
Gourd	0.10	0.06	1.16	0.87
Bitter gourd	0.19	0.18	4.35	4.16
Cucumber	0.29	0.31	3.78	3.83
Snake gourd	0.10	0.07	1.57	1.15
Cauliflower	0.02	0.04	0.30	0.87
Cabbage	0.33	0.25	4.64	3.70
Brinjal	0.17	0.14	2.89	2.42
Lady's finger	0.24	0.24	4.25	4.09
Palak/ other leafy vegetables	0.16	0.14	2.78	2.58
French beans	0.07	0.08	1.50	1.72
Tomato	0.51	0.49	8.19	8.11
Peas	0.15	0.18	3.35	3.97
Chilli green	0.13	0.13	3.86	4.03
Plantain green	0.19	0.19	2.88	3.34
Lemon	0.02	0.03	0.55	1.04
Other vegetables	0.82	0.78	14.03	14.79
Vegetables Total	4.83	4.71	85.32	87.75
Fruits and nuts				
Banana (no.)	4.99	7.26	15.33	24.60
Pineapple (no.)	0.08	0.08	0.83	0.95
Coconut (no.)	5.71	5.17	33.87	32.94
Coconut green (no.)	0.53	0.86	3.31	3.41
Papaya (kg)	0.05	0.02	0.42	0.24
Mango (kg)	0.04	0.07	1.46	2.53
Fresh fruits Total			82.15	107.92
Dry fruits	0.05	0.06	5.25	7.61
Spices	0.53	0.53	50.45	50.03

Source: NSS Report on Household Consumption on Various Goods and Services in Kerala, 2009-10, NSS 60th Round, Department of Economics & Statistics

6.4 A comparison in consumption pattern of 2009-10 with 2004-05

The following table gives the quantity and value of consumption of cereals and oils in rural and urban areas in the State during the period of 2004-05 and 2009-10.

Item	Quantity (in Kg)		Value (in Rs.)	
	Rural	Urban	Rural	Urban
Cereals				
Total cereals (2009-10)	8.56	8.52	147.99	160.47
Total cereals (2004-05)	9.26	8.62	108.89	101.1
Edible oils				
Total Oil (2009-10)	0.623	0.647	35.26	37.11
Total oils (2004-05)	0.711	0.521	32.32	33.40

Source: NSS Report on Household Consumption on Various Goods and Services in Kerala, 2009-10, NSS 60th Round, Department of Economics & Statistics

6.5 Rice consumption in Kerala

The following table shows the estimated value of quantity of rice consumption in Kerala based on the socio economic survey conducted by NSSO, Govt of India in the State during 2009-10, and the report published by the Department of Economics & Statistics. Rice consumption is estimated based on the monthly percapita consumption of rice and rice products in rural and urban areas in the State.

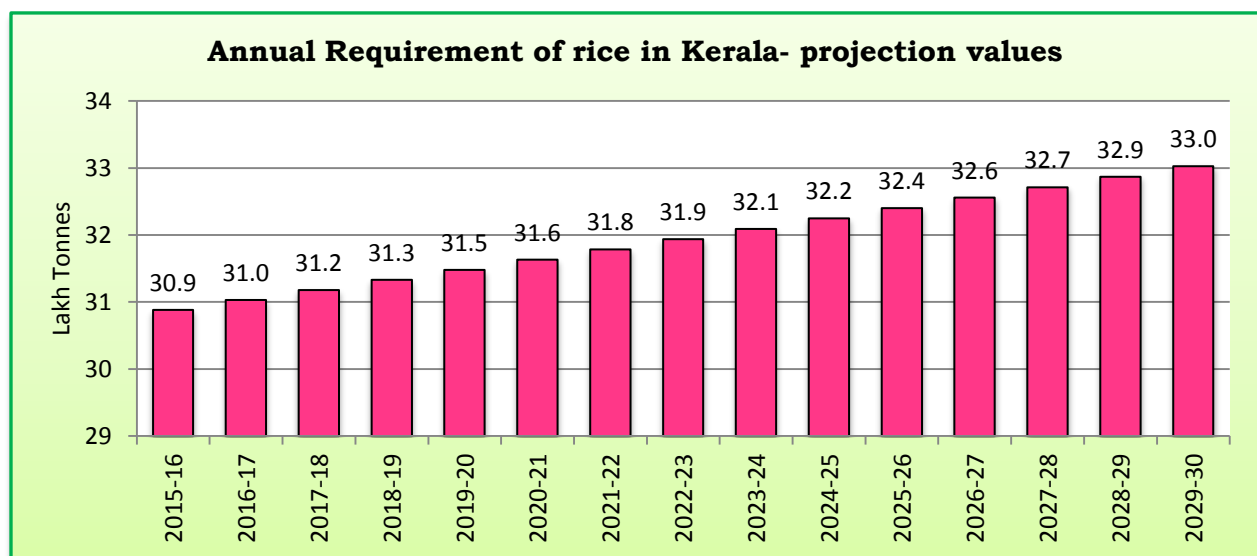
	Region	Rural	Urban	Total/ Average
1	Monthly percapita consumption of rice and rice products (in Kg)	7.663	7.404	-
2	Population as per 2011 census (No.)	17471135	15934926	33406061
3	Estimated annual consumption (in Lakh Kg)	16065.76	14157.86	30223.62
4	Percapita annual consumption (in Kg)	91.96	88.85	90.47

6.6 Estimated requirement of rice

The projected requirement of rice in the State for the period from 2015-16 to 2029-30 based on the consumption pattern of rice and rice products found during the study of National Sample Survey conducted in Kerala in 2009-10 is given in the following table.

Year	Projected Mid Year Population (in Lakhs)	Average Per capita consumption for one year (in Kg)	Annual requirement of rice (in Lakh Tonnes)
2015-16	341.35	90.47	30.88
2016-17	342.99	90.47	31.03
2017-18	344.64	90.47	31.18
2018-19	346.30	90.47	31.33
2019-20	347.96	90.47	31.48
2020-21	349.64	90.47	31.63
2021-22	351.32	90.47	31.79
2022-23	353.01	90.47	31.94
2023-24	354.71	90.47	32.09
2024-25	356.41	90.47	32.25
2025-26	358.13	90.47	32.40
2026-27	359.85	90.47	32.56
2027-28	361.58	90.47	32.71
2028-29	363.32	90.47	32.87
2029-30	365.06	90.47	33.03

Note that the mid year population used here are the projected values estimated for the purpose of this study only using Geometric Numerical Method based on the census population in 2001 and 2011 and its decadal growth rate during the period.



6.7 Vegetable consumption in Kerala

The estimated quantity of vegetable consumption in the State based on the monthly percapita consumption estimates of NSS 66th Round socio economic survey conducted in Kerala during 2009-10 is given below.

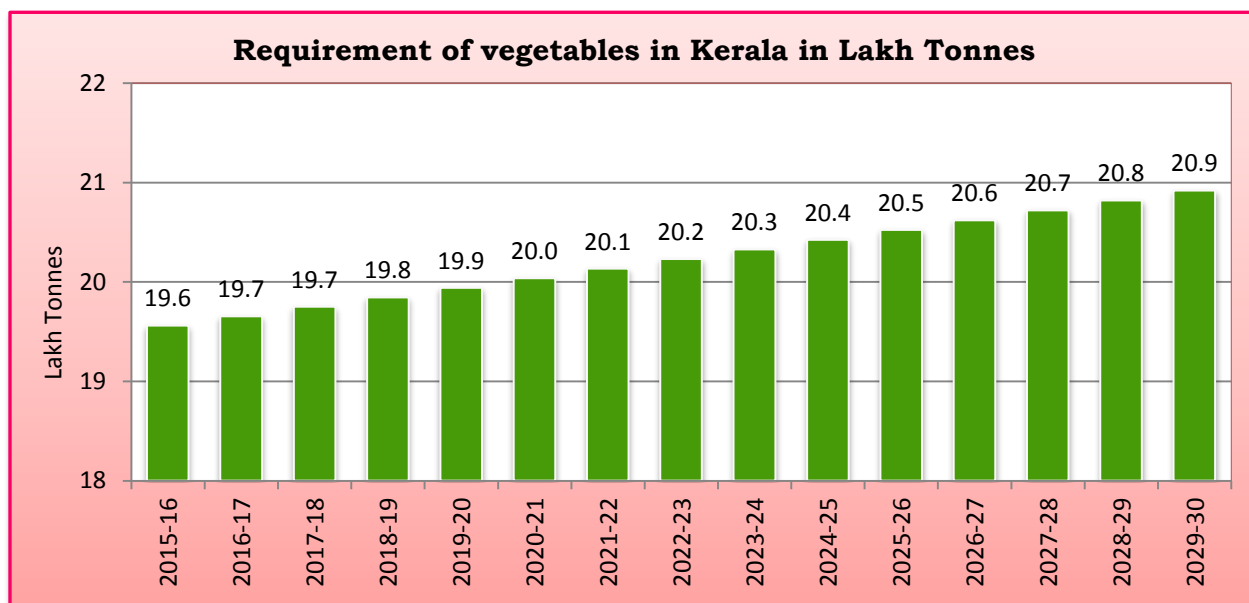
	Region	Rural	Urban	Total/ Average
1	Monthly percapita consumption of vegetables (in Kg)	4.833	4.712	-
2	Population as per 2011 census (No.)	17471135	15934926	33406061
3	Estimated annual consumption (in lakh Kg)	10132.56	9010.24	19142.80
4	Percapita annual consumption (in Kg)	57.99	56.54	57.30

6.8 Estimated requirement of Vegetables

The projected requirement of vegetables in the State from 2015-16 to 2029-2030 estimated based on the average percapita annual consumption of vegetables found during the study of National Sample Survey conducted in Kerala in 2009-10 is given in the following table.

Year	Projected Mid Year Population (in Lakhs)	Average Percapita consumption for one year (in Kg)	Annual requirement of vegetables in Lakh Tonnes
2015-16	341.35	57.30	19.56
2016-17	342.99	57.30	19.65
2017-18	344.64	57.30	19.75
2018-19	346.30	57.30	19.84
2019-20	347.96	57.30	19.94
2020-21	349.64	57.30	20.04
2021-22	351.32	57.30	20.13
2022-23	353.01	57.30	20.23
2023-24	354.71	57.30	20.33
2024-25	356.41	57.30	20.42
2025-26	358.13	57.30	20.52
2026-27	359.85	57.30	20.62
2027-28	361.58	57.30	20.72
2028-29	363.32	57.30	20.82
2029-30	365.06	57.30	20.92

The following bar chart shows the growth in vegetable requirement in the State for the next 15 years.



Chapter 7

RICE DEVELOPMENT

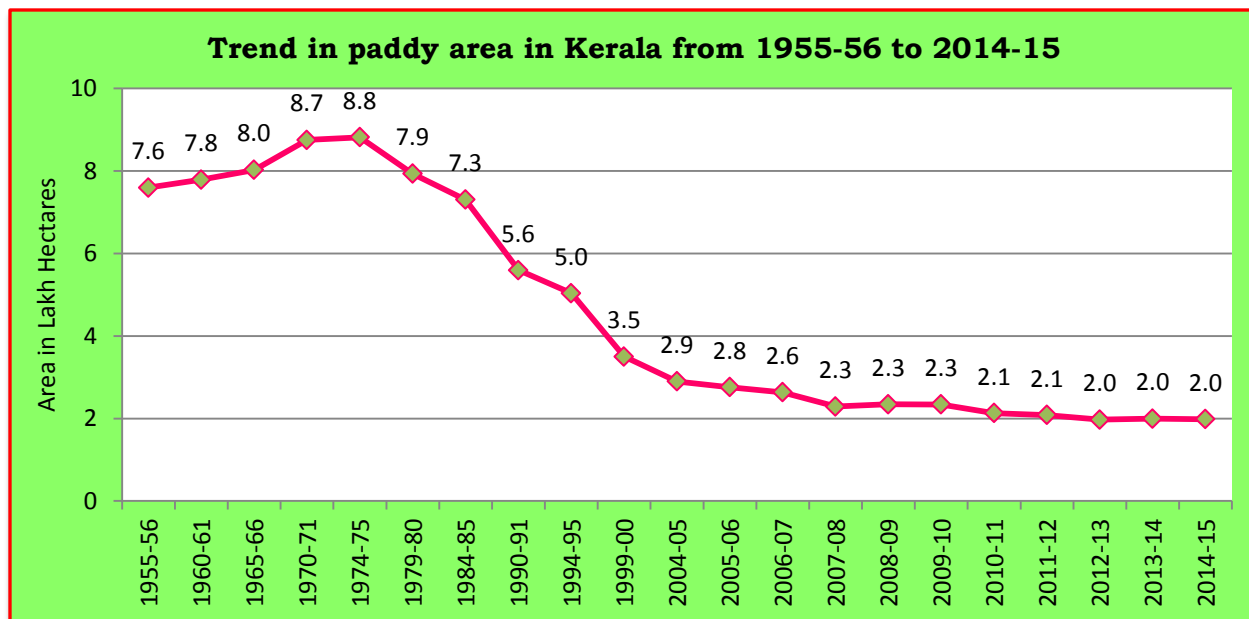
7.1 Area, Production and Productivity of rice

Paddy cultivation has been reducing year by year even after the Govt have been providing a lot of financial and marketing assistance to paddy farmers through various schemes and programmes. Even though rice is the main food grain of Malayalees, due to high cost of production, attitudinal change, wetland conversion for dwelling and other construction purposes and fast urbanisation, the paddy area and rice production in the State show a decreasing trend. Thus the dependency on other States for this food grain is increasing. So the sustainability of rice in the State is beyond the limit.

Area, production and productivity of rice during the last 10 years

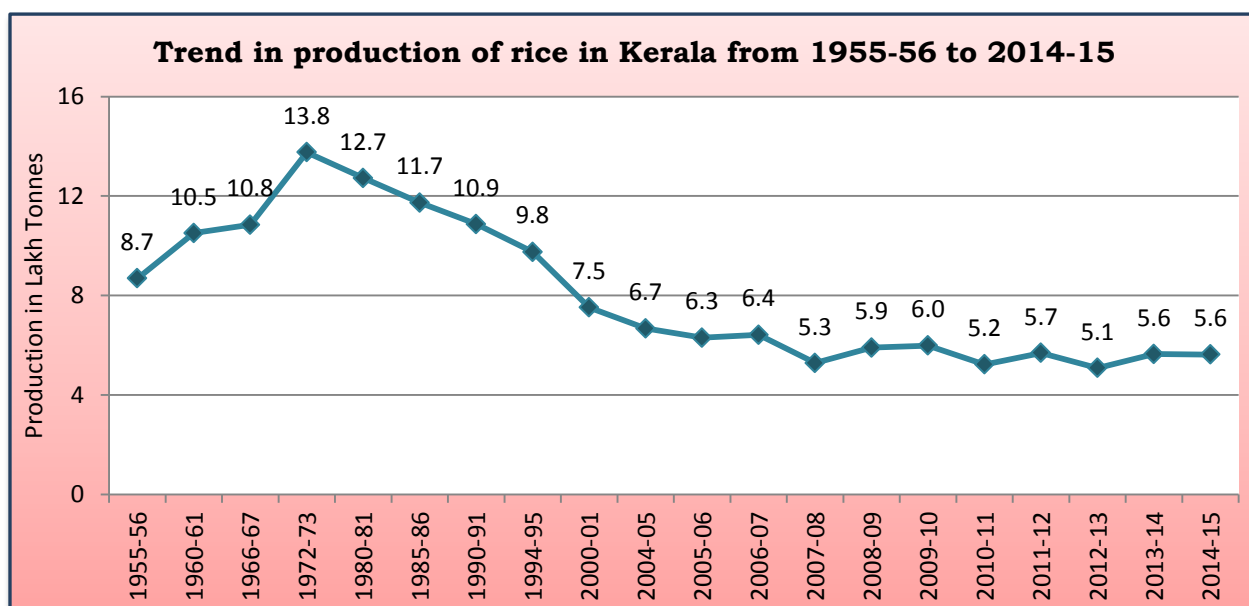
Year	Area (in hectares)	Production (in tons)	Productivity (in Kg/ Hectare)
2005-06	275742	629987	2285
2006-07	263529	641575	2435
2007-08	228938	528488	2308
2008-09	234265	590241	2520
2009-10	234013	598339	2557
2010-11	213187	522738	2452
2011-12	208160	568993	2733
2012-13	197277	508299	2577
2013-14	199611	564325	2827
2014-15	198159	562092	2837

Paddy sown area in Kerala recorded its maximum value in 1974-75 with 8.81 lakh hectares and its least value in the history of the State was in 2012-13 and is 1.97 lakh hectares. The following trend chart depicts the trend in reduction of paddy area in Kerala since from the formation of the State of Kerala up to the agricultural year 2014-15.

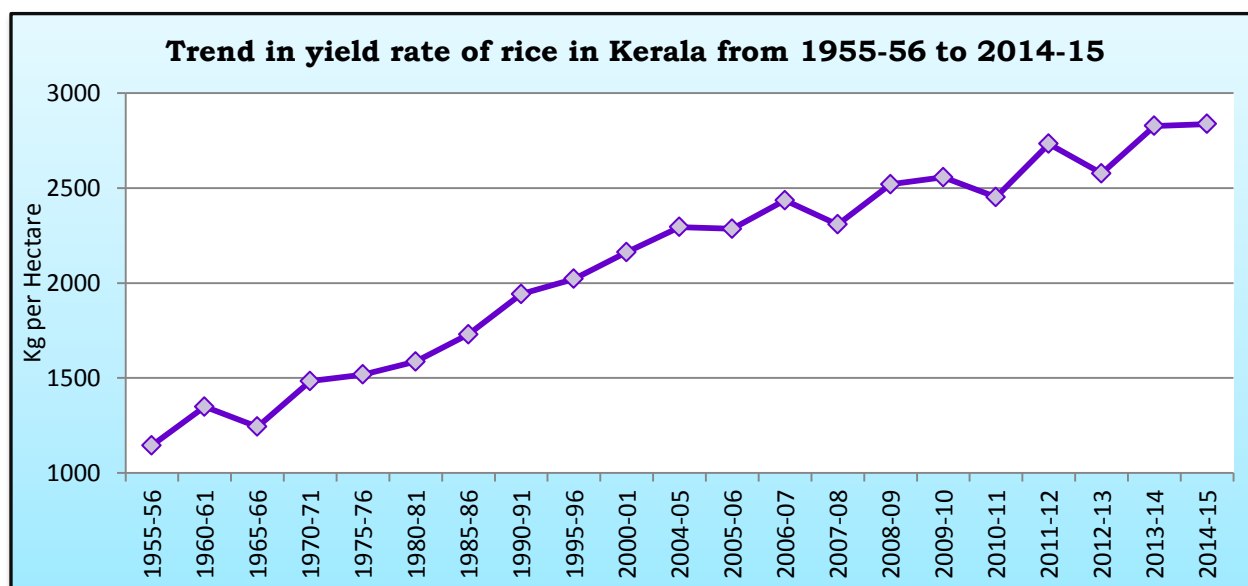


The production of rice in Kerala is decreasing in accordance with the decreasing area of paddy. Even though the fall is not steady, there is a reduction of 11% is seen in the production of rice from 2005-06 to 2014-15, during a period of 10 years. The rice production in Kerala recorded its peak value in 1972-73 with 13.7 lakh tonnes, and at that time the State has 3.5 percent share in the total production of rice in the country.

The following chart shows the trend in production of rice and its quantity from 1955-56 to 2014-15 in the State.



The productivity of rice recorded its peak value in 2014-15 with 2837 kilogram per hectare and its least value was in 1955-56 with 1144 kilogram per hectare. The trend chart showing the productivity of rice from 1955-56 onwards is given below.

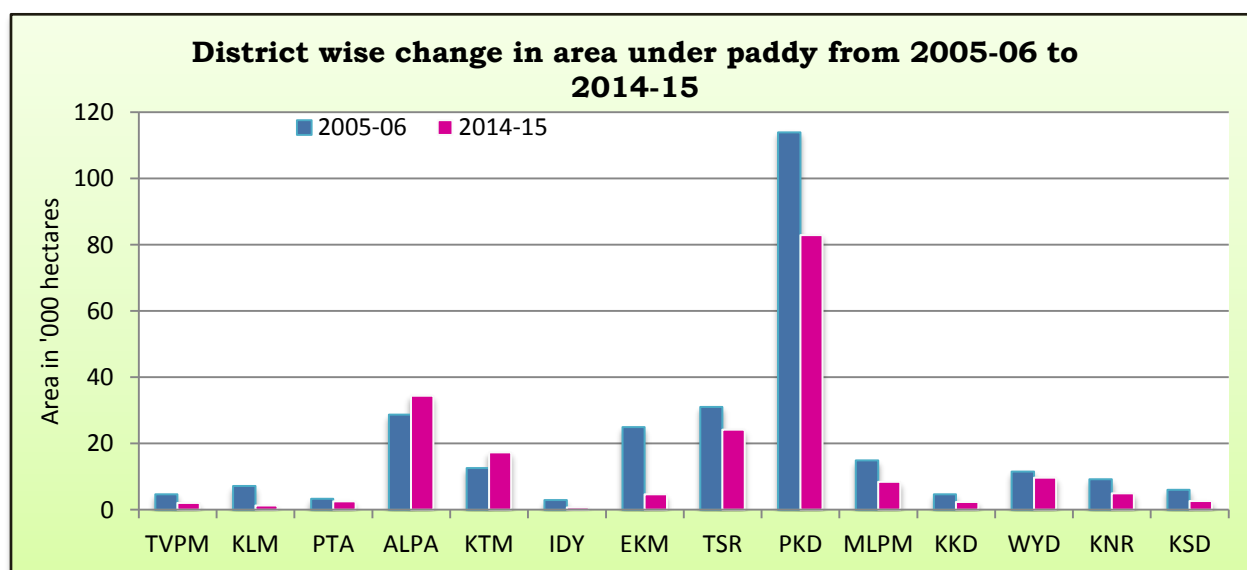


For area, production and productivity of State and all India for all years from 1955-56 to 2013-14, the tables given in annexure may be referred.

7.2 District wise paddy area

During the period from 2005-06 to 2014-15, 28% reduction in gross paddy cropped area has occurred in the State. While considering the district scenario, maximum reduction has happened in Kollam district (81.6%) followed by Ernakulam (81.4%). In absolute terms the maximum reduction was in Palakkad district (31007 hectares). At the same time, a slight increase in paddy area occurred in Kottayam and Alappuzha districts. The following table and graph shows the change in area under paddy from 1999-00 and 2005-06 to 2014-15 districts wise in the State.

Sl No	District	Area in Hectares			% variation	
		1999-00	2005-06	2014-15	from 1999-00	from 2005-06
1	TVPM	7969	4705	2093	-73.7	-55.5
2	KLM	17426	7218	1327	-92.4	-81.6
3	PTA	6716	3291	2592	-61.4	-21.2
4	ALPA	35326	28768	34415	-2.6	19.6
5	KTM	15822	12557	17295	9.3	37.7
6	IDY	3640	2932	697	-80.9	-76.2
7	EKM	42894	24934	4644	-89.2	-81.4
8	TSR	42887	31074	24151	-43.7	-22.3
9	PKD	109704	113919	82912	-24.4	-27.2
10	MLPM	23495	14885	8402	-64.2	-43.6
11	KKD	6495	4703	2321	-64.3	-50.6
12	WYD	17304	11503	9690	-44.0	-15.8
13	KNR	11710	9223	4955	-57.7	-46.3
14	KSD	8386	6030	2665	-68.2	-55.8
	TOTAL	349774	275742	198159	-43.3	-28.1

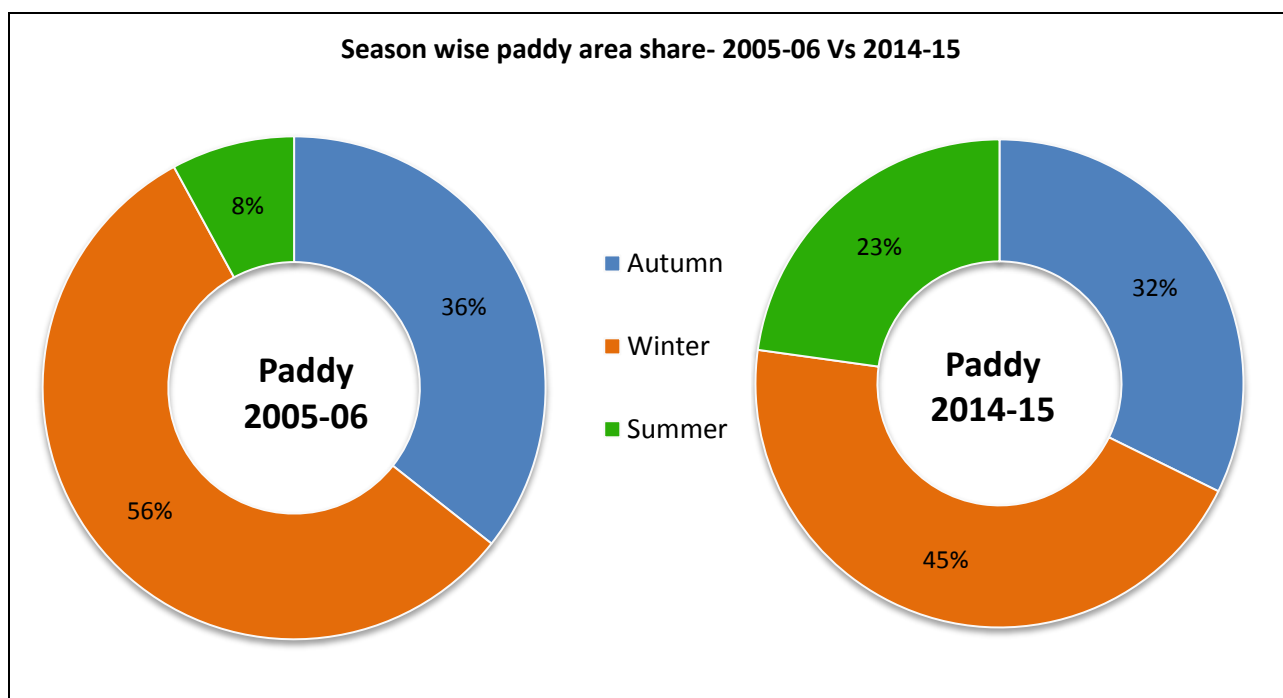


7.3 Season wise area under paddy

Paddy is cultivating in the State in three seasons, viz. autumn, winter and summer every agricultural year. Autumn season is from July 1st to 31st Oct, winter season from 1st Nov to 28th Feb and summer from 1st March to 30th June. The comparison of paddy area in these seasons in 2005-06 and 2014-15 is given below.

Year	Autumn	Winter	Summer	Total
2005-06	98256	155629	21857	275742
2014-15	63981	88990	45188	198159

The change in share of paddy area in each season from 2005-06 to 2014-15 may be seen from the following pie charts. A shift in area from autumn and winter seasons to summer season is seen during the period of 10 years.



7.4 Rice production in other States in India

West Bengal is the leading producer of rice among the States in India with a share of 14.37 percent followed by Uttar Pradesh with 13.73 percent. The total production of rice in India in 2013-14 was 106.54 million tonnes, out of this 15.31 million tonnes is the contribution of West Bengal and 14.63 million tonnes is from UP. The four States West Bengal, UP, AP and Punjab together take more than 50 percent share of the total production of rice in the country. Kerala is in 16th position for both paddy area and rice production. Kerala accounts for 0.45 percent in paddy area and 0.48 percent in its production in the country.

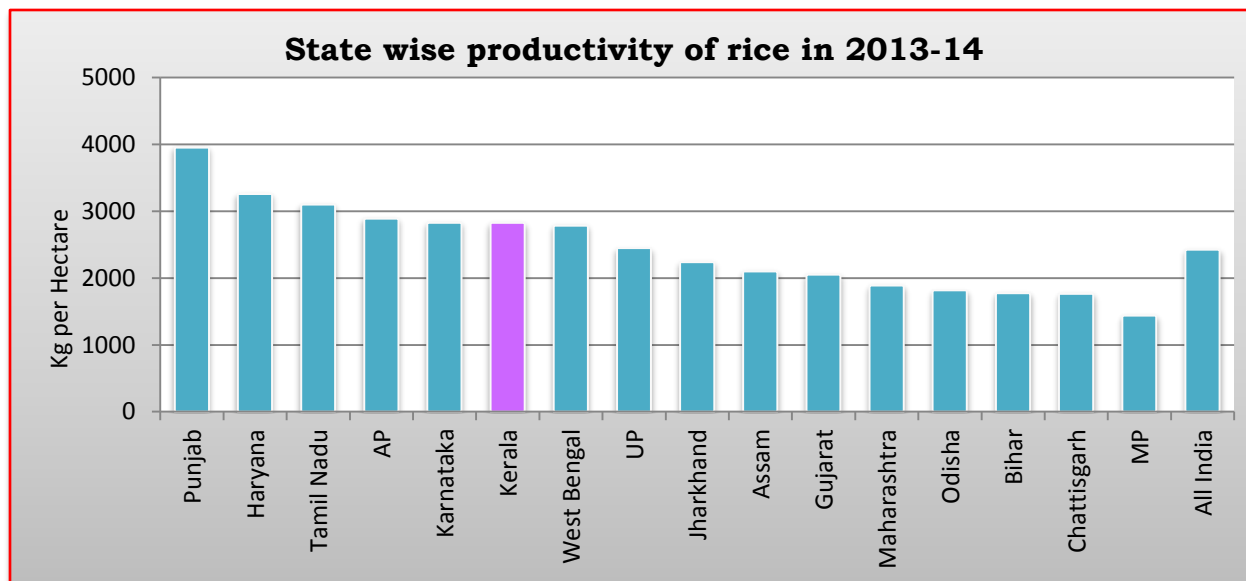
The following table gives the area, production and productivity of rice in major rice producing States in the country and their share to all India area and production during the year 2013-14.

Area: in Million Hectares, Production: in Million Tonnes, Yield: in Kg/ Hectare

State	Area	Area- % to All India	Production	Production- % to All India	Yield rate
West Bengal	5.50	12.51	15.31	14.37	2786
UP	5.98	13.60	14.63	13.73	2447
AP	4.51	10.25	13.03	12.23	2891
Punjab	2.85	6.49	11.27	10.58	3952
Odisha	4.18	9.51	7.58	7.12	1815
Chhattisgarh	3.80	8.65	6.72	6.30	1766
Tamil Nadu	1.79	4.06	5.54	5.20	3100
Bihar	3.11	7.07	5.51	5.17	1774
Assam	2.27	5.17	4.78	4.48	2101
Haryana	1.23	2.79	4.00	3.75	3256
Karnataka	1.33	3.02	3.76	3.53	2828
Maharashtra	1.56	3.55	2.95	2.77	1891
MP	1.93	4.40	2.78	2.61	1438
Jharkhand	1.22	2.79	2.74	2.57	2238
Gujarat	0.79	1.79	1.62	1.52	2053
Kerala	0.20	0.45	0.56	0.53	2827
Others	1.71	3.89	3.83	3.60	-
All India	43.95	100	106.54	100	2424

Source: Agricultural Statistics 2014, M/o Agriculture, Govt of India

Regarding the productivity of rice, our State is in 6th rank among the States in India. Punjab has the highest productivity with 3952 Kg of rice per hectare followed by Haryana with 3256 Kg per hectare. The all India average yield rate of rice in 2013-14 is 2424 Kg per hectare.



7.5 Schemes on development of paddy cultivation

The schemes implemented by the department of Agriculture for the development of paddy cultivation in Kerala during the period of study are explained below. The financial performance and the available physical achievements are quantified and presented along with.

1. Sustainable Development of Rice

This scheme is intended for the sustainable development of paddy cultivation and thus to increase the rice production in the State. In some years, this scheme was mentioned in the State budget as 'Integrated Food crop Production- Rice development'. The following are the components of this scheme and their physical achievement during the last 10 years. The budget allocation for this plan scheme is provided under the Head of Account 2401-00-102-90. The components of this scheme are the following.

1.1 Revitalization of group farming: This component aims to make paddy cultivation more profitable and to reduce the cost of cultivation considerably. Group farming Samithies or Padasekhara Samithies constitutes the nucleus of this programme.

1.2 Fallow Land cultivation

1.3 Assistance to development agencies: For improving the rice production by rectifying the problems in paddy cultivation, assistance has been provided through 11 development agencies in Kerala.

1.4 Assistance to Seed Development Authority

1.5 Assistance for fish culture and other seasonal crops in paddy fields during non-cropping periods

1.6 Assistance for establishing small scale processing and marketing units

1.7 Assistance for training and farm mechanization

1.8 Green card printing through Farm Information Bureau

1.9 Support to upland rice production

1.10 Assistance to Model Padasekharams

1.11 Special rice

The year wise budget allocation and its financial progress of this scheme under the above head of account are as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	Percent
2005-06	1800.00	1800.00	1577.50	88
2006-07	1800.00	1850.00	1838.24	99
2007-08	1425.00	1425.00	1406.59	99
2008-09	2000.00	2000.00	1999.72	100
2009-10	2300.00	2300.00	2288.70	100
2010-11	2900.00	2900.00	2892.14	100
2011-12	2900.00	2900.00	2898.65	100
2012-13	5000.00	5000.00	4910.14	98
2013-14	5000.00	5000.00	4939.62	99
2014-15	3352.00	3352.00	3313.52	99

The physical achievement is given below. (Area in Hectares)

Year	Revitalization of group farming	Fallow land cultivation	Assistance to development agencies	Support for upland paddy production	Special rice	Total area (in Ha)
2005-06	111142	6114				117256
2006-07	117849	4919	304			123072
2007-08	49496	4318				53814
2008-09	104683	6779	120			111582
2009-10	142994					142994
2010-11	168273	2476				170749
2011-12	210085	2512			858	213455
2012-13	203173	1373		3330	972	208848
2013-14	202675	2641	320	3128	261	209025
2014-15	204711	1806	278	0	1268	208063

Here the paddy area developed as the achievement of the above scheme by the Department of Agriculture is calculated based on season approach, so there is a variation with the figures in area from 2011-12 to 2014-15 given at the beginning of

this chapter, estimated based on harvest approach and published by the Department of Economics & Statistics.

2. Macro Management- Rice Development (90% CSS)

This is a centrally sponsored scheme implemented on a cost sharing basis in the ratio 90:10 (Central: State). The budget allocation for this plan scheme is provided under the Head of Account 2401-00-800-61 (01). This scheme was discontinued by Govt of India from 01-04-2013, however, an amount of Rs.4.2 lakhs has been spent under this head during 2013-14 for the works done by revalidating the previous year's fund. The budget outlay and its expenditure in each year from 2005-06 to 2013-14 (no budget provision in 2014-15) are as follows. (Rs. in Lakhs)

Year	Budget outlay		Revised outlay		Accounts		Percent
	State	Central	State	Central	State	Central	
2005-06	260.00	2340.00	260.00	2340.00	147.09	1323.81	57
2006-07	121.35	1092.15	121.35	1092.15	72.14	649.30	59
2007-08	110.50	994.50	110.50	994.50	99.91	899.17	90
2008-09	125.00	1125.00	125.00	1125.00	121.99	1097.87	98
2009-10	100.00	900.00	100.00	900.00	84.57	761.11	85
2010-11	100.00	900.00	70.00	630.00	67.47	607.19	96
2011-12	70.00	630.00	70.00	630.00	54.43	489.82	78
2012-13	70.00	630.00	70.00	630.00	51.13	461.79	73
2013-14	60.00	540.00	40.00	360.00	0.42	3.78	1

The main components of this central plan scheme are given below.

2.1 Assistance for seed production programme: The main objective of this component is for production and distribution of quality seeds of high yielding varieties of paddy to registered farmers. For this, financial assistance is given to State Seed Development Authority.

2.2 Distribution of high yielding seed varieties of paddy: High yielding seed varieties of paddy were distributed to Padasekhara Samities on subsidy basis under this component.

2.3 System of Rice Intensification (SRI): The component SRI is meant for reducing the cost of paddy cultivation. Through this method of farming, the use of water and seed can be reduced.

2.4 Setting up of demo field of paddy using HY varieties of seeds: This component is intended for setting up of model demonstration paddy fields using high yielding

varieties of paddy suitable for the region for dissemination of technologies and multiplication of the high yielding seeds to farmers.

2.5 Infrastructure development: Infrastructure development support had been provided to Padasekharams under this component for improving the production of rice.

2.6 Integrated pest management: Fund has been utilized under this component for implementing integrated pest management and its monitoring.

2.7 Rice development (MOU)- integrated pest management

2.8 Integrated nutrient management: This component aims to increase the application of bio fertilizers in rice cultivation.

3. National Food security Project

This central scheme was implemented in Palakkad district in Kerala in the years 2009-10, 2010-11 and 2011-12 for increasing the production of food crops. The budget allocation for this plan scheme is provided under the Head of Account 2401-00-102-82. The year wise allocation and expenditure are given below.

Item	Budget outlay	Revised outlay	Accounts	Percent
2009-10	3600.00	3600.00	3592.29	100
2010-11	2665.00	2665.00	2590.64	97
2011-12	2800.00	2636.00	2562.69	97

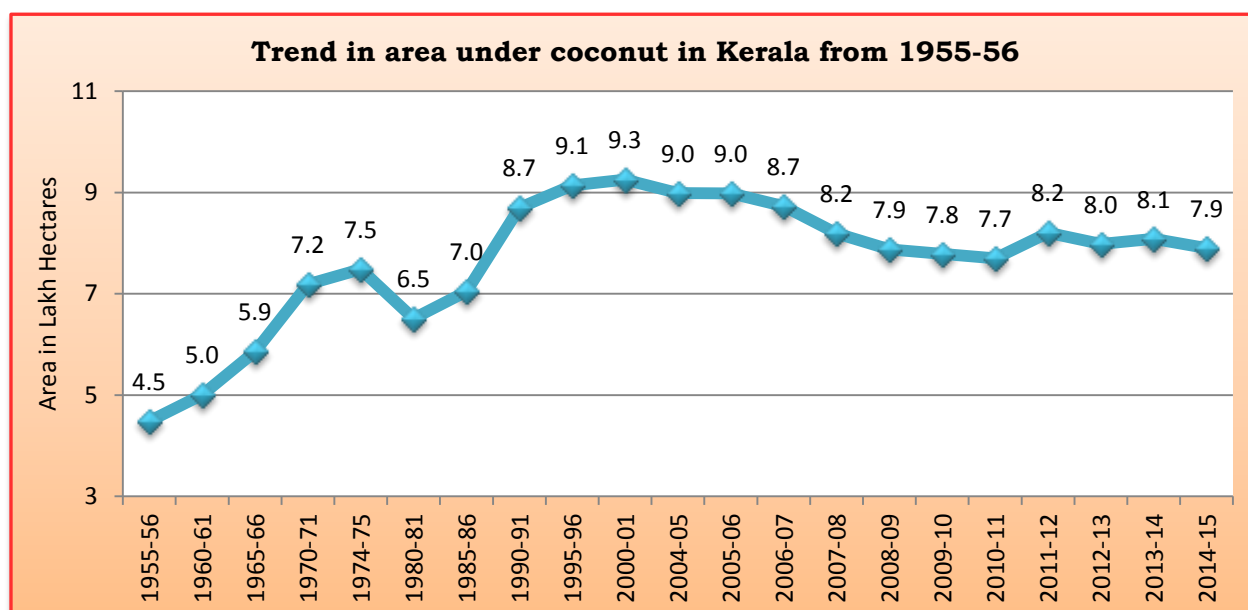
Besides the above assistance to paddy cultivation in the State has been provided under RKVY scheme and the details of RKVY are mentioned in the last chapter.

Chapter 8

COCONUT DEVELOPMENT

8.1 Area, production and productivity of coconut in Kerala

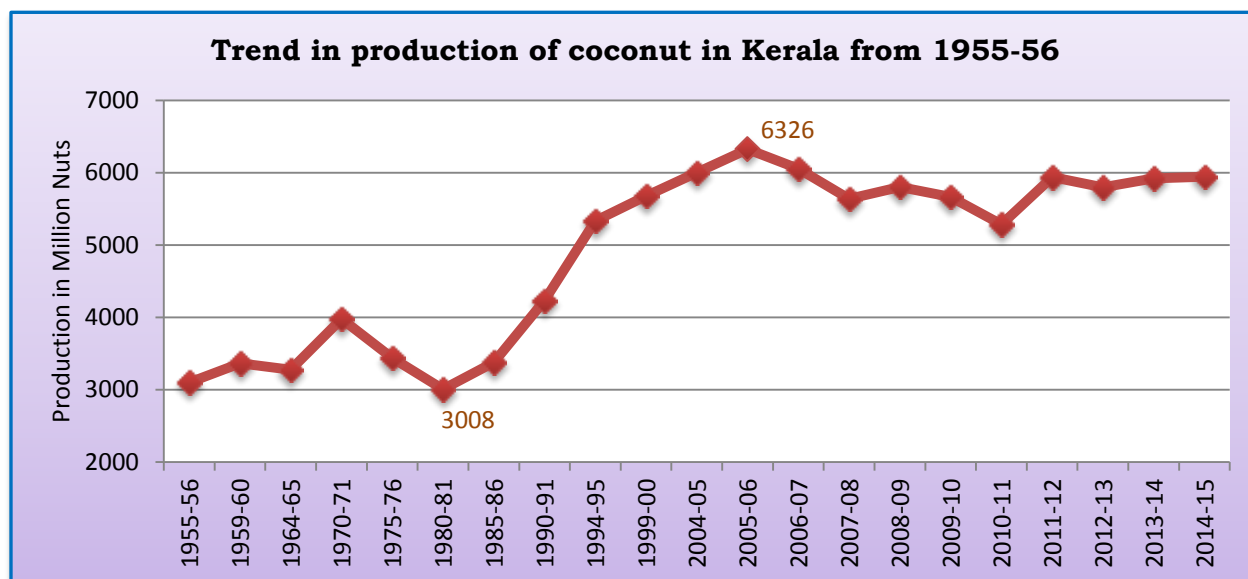
According to official estimates, the area under coconut cultivation in Kerala in 1934-35 was 5.65 lakh hectares. In 1955-56, the area under coconut was 4.5 lakh hectares, it has increased to 7.5 lakh hectares in 1974-75, decreased to 6.5 lakh hectares in 1980-81 and then increased and reached its maximum value in 2000-01 with 9.25 lakh hectares. Now this has been reduced to 793856 hectares and the fall in area during the period 2000-2015 is 14.3 percent.



Regarding the production side, the yield of coconut shows a varying trend. The total production of coconut in the state in 1955-56 was 3099 million nuts and now it is 5947 million nuts. The production of coconut in Kerala recorded its maximum value in 2005-06 with 6326 million nuts and its least value in 1981-82 with 3006 million nuts.

About 38% of the total area under coconut palms in India is in Kerala and the State is leading in the cultivation of coconut. But in production of coconut, Kerala's share is 26.8% only. The total area under coconut in our nation as a whole is 21.4 lakh hectares and the production is 22088 million nuts (163.01 lakh MT) during the

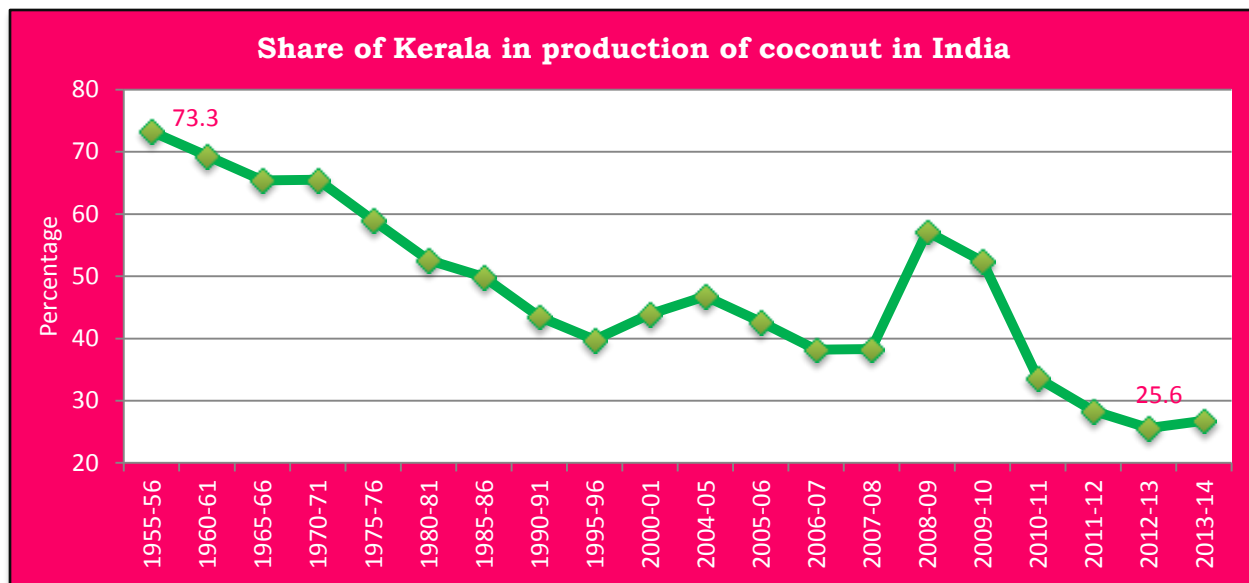
year 2013-14. The average productivity of coconut in India is 10321 nuts per hectare (7306 kg/ hectare).



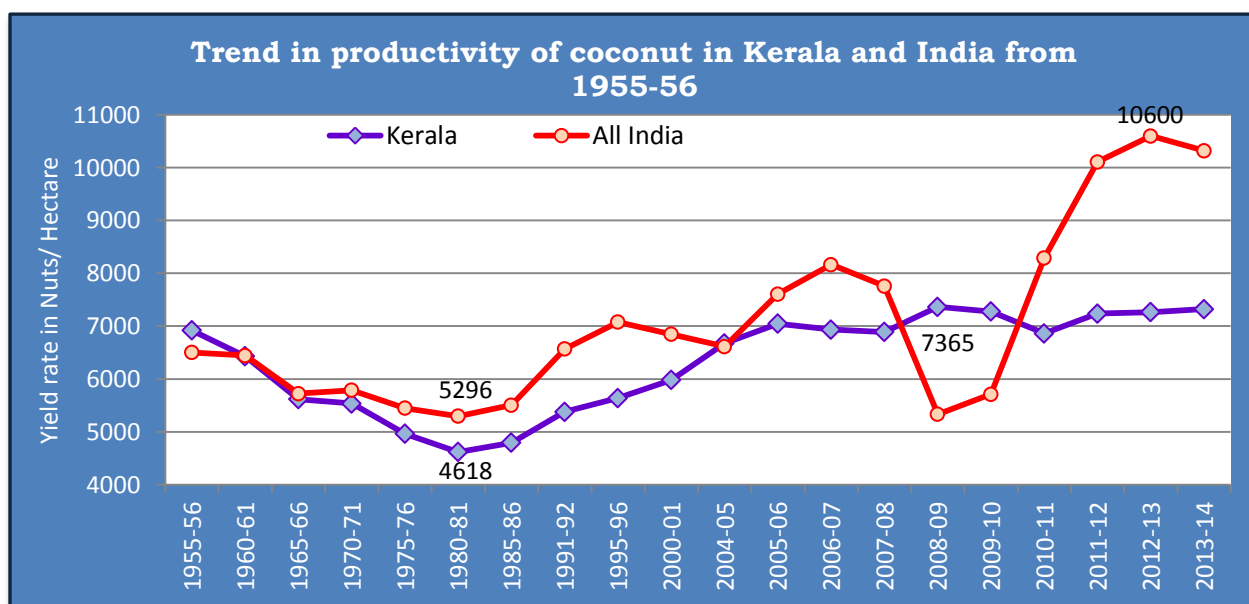
The following table shows the area, production and productivity of coconut during the last 10 years from 2005-06 to 2014-15.

Year	Area (in hectares)	Production (in million nuts)	Productivity (in Nuts/ Hectare)
2005-06	897833	6326	7046
2006-07	872943	6054	6935
2007-08	818812	5641	6889
2008-09	787769	5802	7365
2009-10	778618	5667	7278
2010-11	770473	5287	6862
2011-12	820867	5941	7237
2012-13	798162	5799	7265
2013-14	808647	5921	7322
2014-15	793856	5947	7491

On examining the all India production of coconut from 1955-56, it is observed that the production share of Kerala has been decreasing year by year. The following graph shows this trend. The national production of coconut during 2008-09 and 2009-10 was much lesser than that of preceding and succeeding years, and hence the share of Kerala showed high during the period.



The productivity at all India level is higher than Kerala from 1964-65 onwards, it crossed the State figure in 2003-04 and thereafter maintaining higher values above the State figure except in 2004-05, 2008-09 and 2009-10. The graph showing the productivity trend of coconut in the State and all India is given below. The minimum and maximum values (only of the years referred in the graph) of productivity of coconut in respect of Kerala and India are also mentioned in the graph.



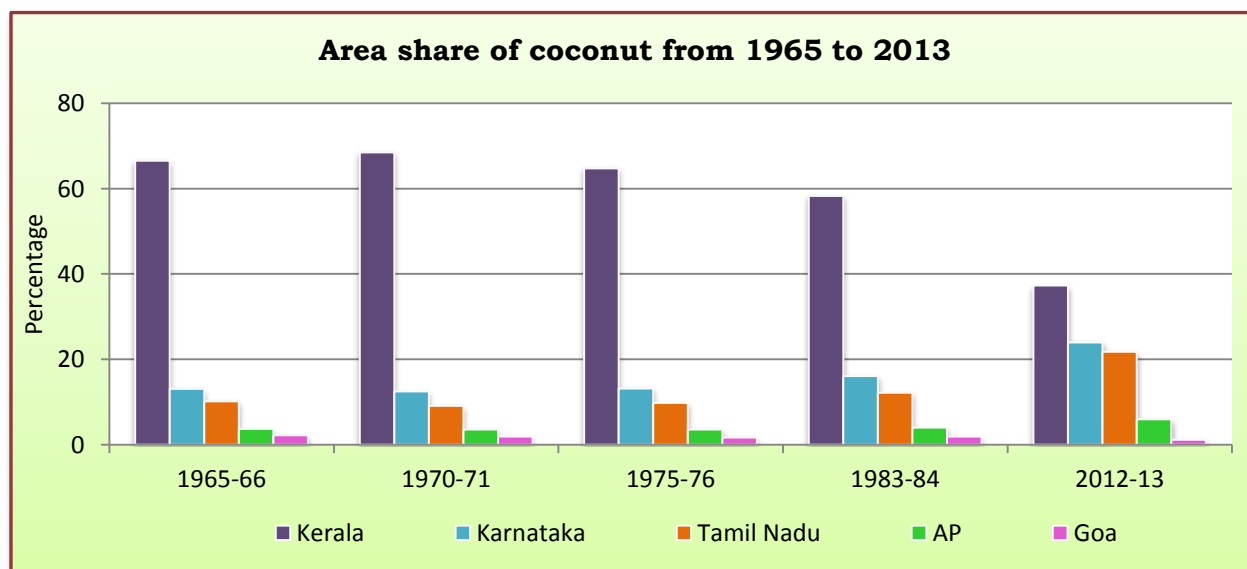
8.2 Area share of coconut by different states in India

Even though the area and production of coconut has increased, the area share of Kerala has been decreasing due to the increase in coconut cultivation in other

States. In 1960-61, 69.58% of the total area under coconut cultivation in the country belonged to Kerala and the production was 3220 million nuts. In 1965-66, the state accounted for 66.6% of the total area under coconut in the country, and now this is only 37.8%. The following table shows the share in area under coconut cultivation in different states in India and its trend from 1965-66 to 2012-13.

State	1965-66	1970-71	1975-76	1983-84	2012-13
Kerala	66.6	68.5	64.8	58.3	37.3
Karnataka	13.1	12.5	13.2	16.1	24.0
Tamil Nadu	10.2	9.1	9.8	12.2	21.8
AP	3.7	3.6	3.6	4.0	6.0
Goa	2.2	1.9	1.7	1.9	1.2
Andaman & NI	1.0	0.8	1.8	1.8	1.0
Maharashtra	1.0	0.9	0.8	1.0	1.3
Odisha	1.0	1.0	1.0	2.0	2.5
Others states	1.2	1.7	3.3	2.7	4.9

The following bar chart clearly depicts the shift in area proportion to other states during the period from 1965-66 to 2012-13.



8.3 Area, production and productivity of coconut in leading coconut producing States in India

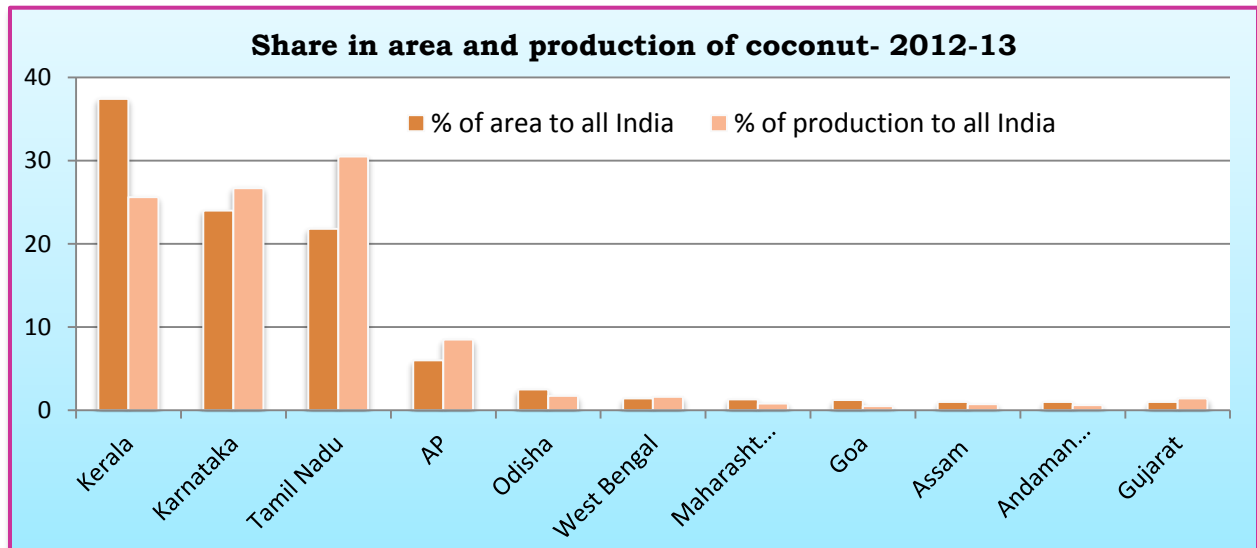
The area, production and productivity of major coconut producing States in the country during 2012-13 is given in the following table.

Area in '000 Hectares, Production in '000 MT, Yield in Kg/ Hectare

Sl No	State	Area	% to all India	Production	% to all India	Yield
1	Kerala	798.2	37.4	3990.4	25.6	4999
2	Karnataka	513.1	24.0	4169.9	26.7	8127
3	Tamil Nadu	465.1	21.8	4760.7	30.5	10236
4	Andhra Pradesh	128.9	6.0	1330.4	8.5	10321
5	Odisha	54.3	2.5	262.2	1.7	4829
6	West Bengal	29.2	1.4	254.2	1.6	8704
7	Maharashtra	28.1	1.3	129.0	0.8	4595
8	Goa	25.7	1.2	84.5	0.5	3285
9	Assam	22.2	1.0	110.3	0.7	4977
10	Andaman & NI	21.9	1.0	89.5	0.6	4088
11	Gujarat	21.1	1.0	221.9	1.4	10506
	All India	2136.5	100	15609.1	100	7306

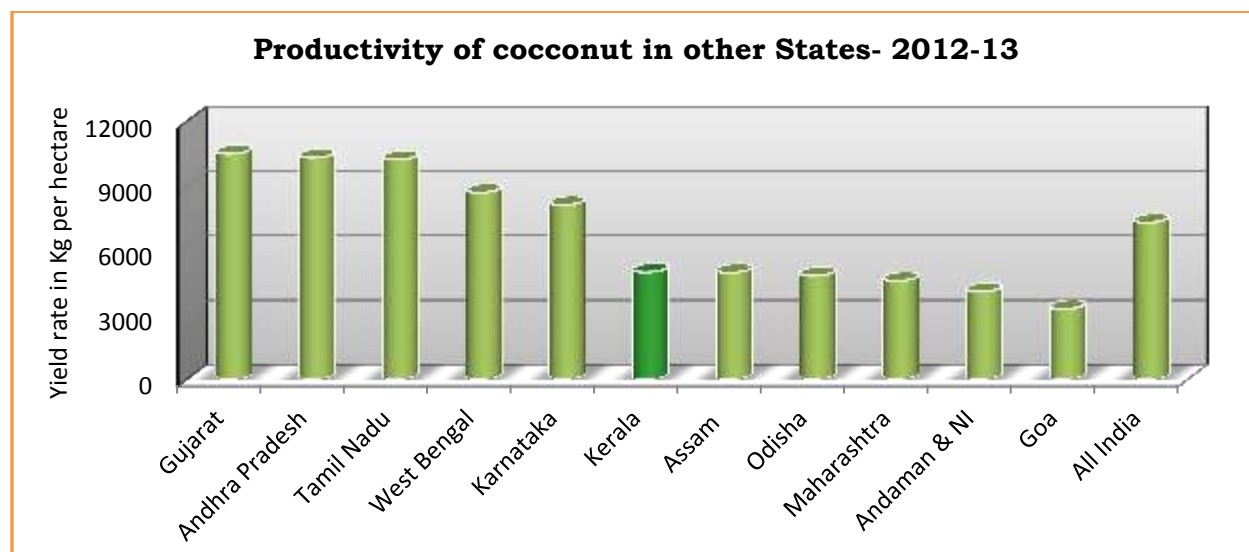
Source: Report on Agricultural Statistics 2013, M/o Agriculture, Govt of India

Even though Kerala is leading in area under coconut, the State's share in production is below to our neighboring States Tamil Nadu and Karnataka. The following bar chart depicts this aspect clearly.



While considering the productivity of coconut, the States Karnataka, Tamil Nadu, West Bengal, Gujarat and Andhra Pradesh have higher productivity than Kerala. Since these five states contribute about 69% of total coconut production, the

all India average productivity of coconut is much higher than that of Kerala. The state wise productivity in Kg per hectare may be seen in the following chart.



8.4 Schemes on development of coconut cultivation

The plan schemes for the development of coconut cultivation implemented from 2005-06 to 2014-15 in the State and their financial and available physical progress are summarised below.

1. CDB scheme for integrated farming in coconut holdings for productivity improvement (100% CSS)

This is a 100% centrally sponsored scheme implemented in all the years of the study period, and the budget provision was in the head of account 2401-00-108-54. The main objectives of this scheme are the establishment of demonstration plots, control of root wilt diseases in coconut palms by applying scientific practices, cutting and removal of diseased trees, etc. The financial progress is (Rs. in Lakhs)

Year	Original outlay	Revised Outlay	Accounts	Percent
2005-06	6000.00	6000.00	784.38	13
2006-07	2506.55	2506.55	650.30	26
2007-08	2500.00	1750.00	967.20	55
2008-09	2500.00	1500.00	273.96	18
2009-10	400.00	433.22	430.50	99
2010-11	400.00	540.00	474.80	88
2011-12	500.00	500.00	264.23	53
2012-13	500.00	450.00	492.40	109
2013-14	600.00	600.00	519.47	87
2014-15	420.00	420.00	223.62	53

2. Coconut development

The strategy proposed for coconut development is integrated development of holdings aimed at maximizing income from unit area through better agro management practices and promotion of multi species cropping and farming systems. The budget provision of this scheme is provided under the head of account 2401-00-103-87. The financial progress is (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	455.00	455.00	449.73	99
2006-07	1023.00	1023.00	1014.96	99
2007-08	1120.00	1120.00	1114.41	100
2008-09	1500.00	1500.00	1469.61	98
2009-10	1525.00	1525.00	1510.06	99
2010-11	3000.00	3000.00	2864.07	95
2011-12	3000.00	3000.00	2941.44	98
2012-13	4500.00	4276.00	4478.17	105
2013-14	5000.00	5000.00	6686.45	134
2014-15	4500.00	4500.00	2508.07	56

3. Production and distribution of hybrid coconut seedlings (50% CSS)

This is a 50% centrally sponsored scheme implemented in the State for increasing the production and productivity of Kerala by supplying hybrid varieties of coconut seedlings to farmers. The budget provision was under the plan head 2401-00-108-96 and the financial achievement is (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	18.00	18.00	18.00	18.00	15.06	15.07	84
2006-07	10.00	10.00	10.00	10.00	7.95	7.95	80
2007-08	10.00	10.00	10.00	10.00	8.69	8.69	87
2008-09	10.00	10.00	12.26	12.26	12.27	12.26	100
2009-10	10.00	10.00	10.00	10.00	11.97	11.97	120
2010-11	10.00	10.00	10.00	10.00	9.97	9.97	100
2011-12	50.00	50.00	50.00	50.00	21.64	21.62	43
2012-13	60.00	60.00	60.00	60.00	52.42	52.41	87
2013-14	15.00	15.00	15.00	15.00	11.84	11.84	79
2014-15	15.00	15.00	15.00	15.00	14.79	14.79	99

4. Payment to Coconut Development Board [Control of Eridiophydmite in coconut]

This scheme is implemented in 2006-07 and 2008-09 under the head of account 2401-00-800-43. The financial achievement is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2006-07	1000.00	1000.00	1000.00	100
2007-08	0.00	211.00	211.00	100

Chapter 9

HORTICULTURE DEVELOPMENT

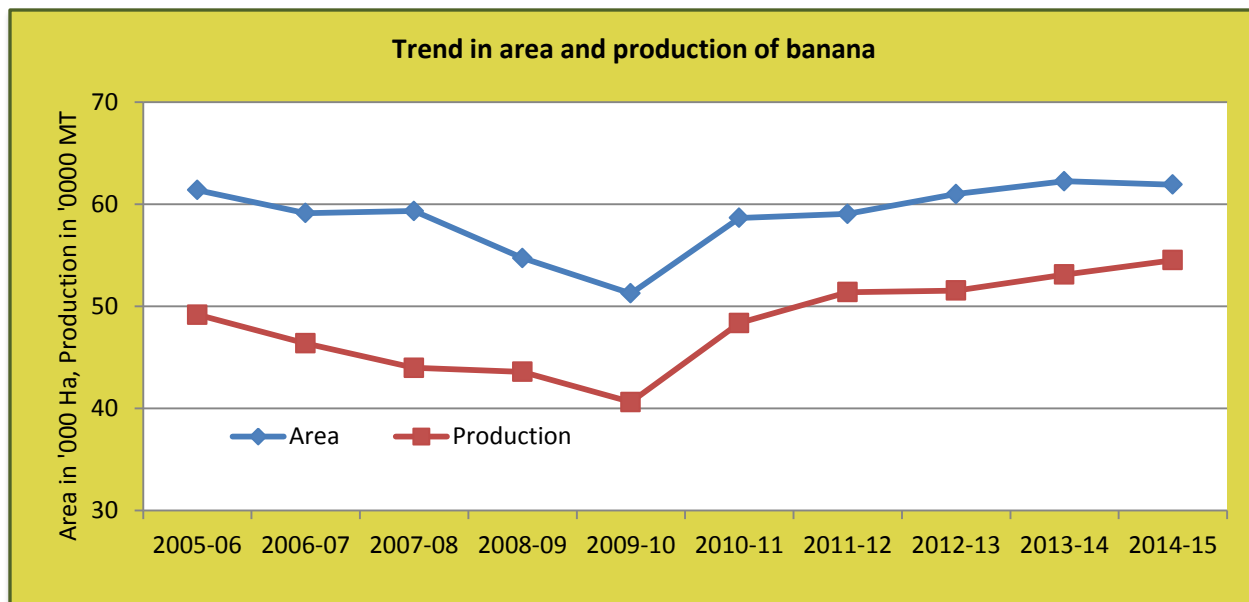
9.1 Production of banana in Kerala

During 1955-56 the total production of banana from the state was 311000 tonnes and the value of production was 8.5 crores. Then, Kerala was leading in its production (including other plantain) with 17 percent share among the Indian States, and the area share was 27 percent. Now in 2013-14, the share of the State in banana has declined to 7.8 percent in area and 1.8 percent in production. The total area under banana cultivation during 2014-15 was 61936 hectares with the production of 5.45 lakh tonnes. The area, production and productivity of banana during the period from 2005-06 to 2014-15 is shown below.

Area: in Hectares, Production: in MT, Productivity: in Kg/ Hectare

Year	Area	% variation	Production	% variation	Productivity
2005-06	61400	4.30	491823	3.46	8010
2006-07	59143	-3.68	463766	-5.70	7841
2007-08	59341	0.33	439803	-5.17	7411
2008-09	54739	-7.76	435979	-0.87	7965
2009-10	51275	-6.33	406242	-6.82	7923
2010-11	58671	14.42	483667	19.06	8244
2011-12	59069	0.68	514054	6.28	8703
2012-13	61011	3.29	515607	0.30	8451
2013-14	62261	2.05	531299	3.04	8533
2014-15	61936	-0.52	545431	2.65	8806

Both area and production of banana in the State showed a declining trend up to 2009-10 and thereafter an increasing trend. The trend chart showing the area and production for the last 10 years is shown below.



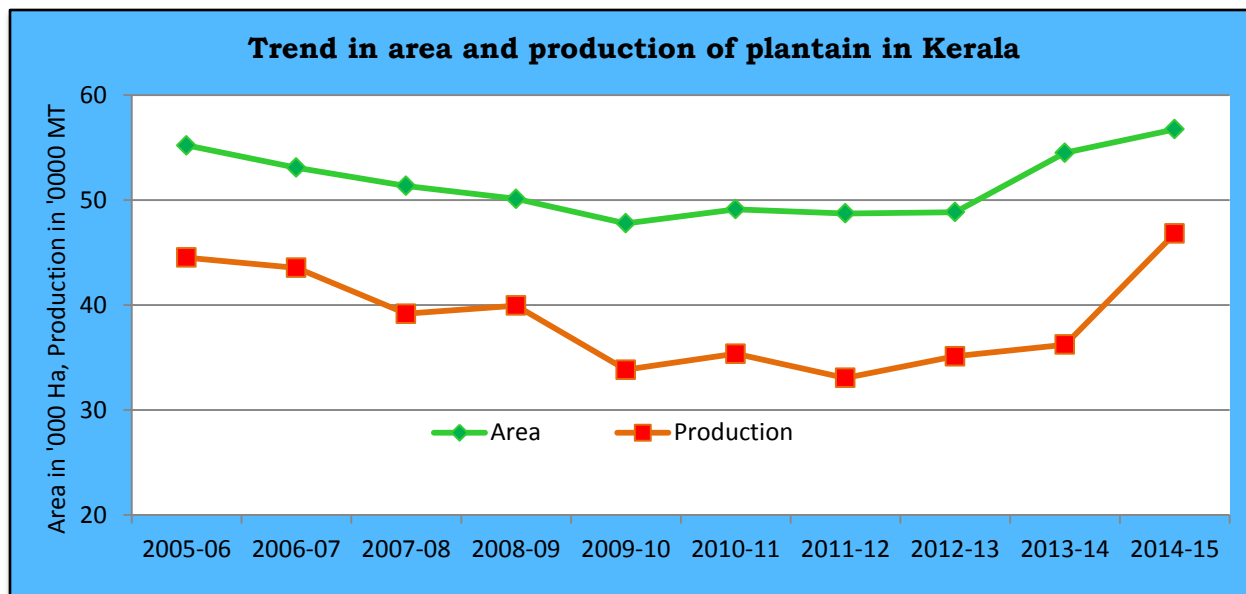
9.2 Production of plantain in Kerala

Kerala accounts for 56761 hectares of area under plantain with the production of 4.68 lakh tonnes annually. The area, production and productivity of plantain in the State are given in the following table. The percentage variation in area and production of each year from the previous year is also mentioned.

Area: in Hectares, Production: in MT, Productivity: in Kg/ Hectare

Year	Area	% variation	Production	% variation	Productivity
2005-06	55222	1.12	445333	7.02	8064
2006-07	53096	-3.85	435636	-2.18	8205
2007-08	51367	-3.26	391896	-10.04	7629
2008-09	50126	-2.42	399633	1.97	7973
2009-10	47802	-4.64	338546	-15.29	7082
2010-11	49129	2.78	353772	4.50	7201
2011-12	48747	-0.78	330634	-6.54	6783
2012-13	48859	0.23	351315	6.25	7190
2013-14	54512	11.57	362395	3.15	6648
2014-15	56761	4.13	468320	29.23	8251

Both area and production show an decreasing trend except the last three years. The productivity shows a varying trend. The trend chart is given below.



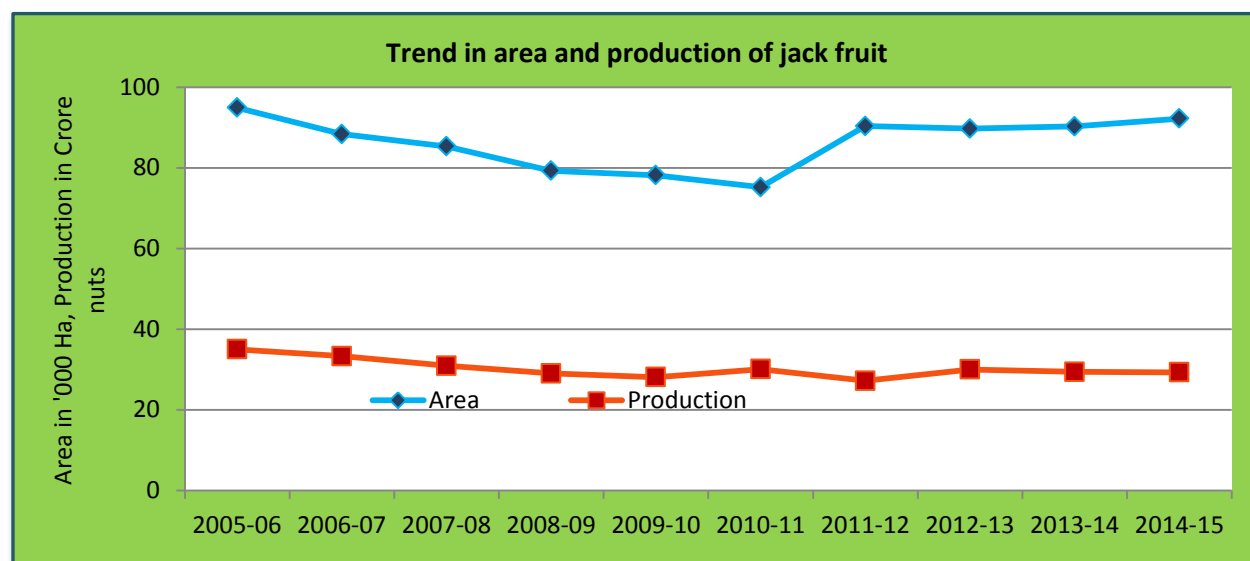
9.3 Production of jack fruit in Kerala

Kerala is the leading producer of jack fruit in the country. Recently this fruit found suitable place in enterprise sector by demonstrating a wide range of value added products from it. About 90 thousand hectares of area sown are under this crop and the State is producing an estimated 300 million nuts (fruits) annually. The area, production and yield rate of jack fruit during the last 10 years in Kerala is shown in the table given below.

Area: in Hectares, Production: Million nuts, Productivity: in No. of nuts/ Hectare

Year	Area	% variation	Production	% variation	Productivity
2005-06	94902	-2.70	350	0.57	3688
2006-07	88358	-6.90	333	-4.86	3769
2007-08	85322	-3.44	309	-7.21	3622
2008-09	79288	-7.07	290	-6.15	3658
2009-10	78148	-1.44	281	-3.10	3583
2010-11	75189	-3.79	301	7.12	4003
2011-12	90333	20.14	272	-9.63	3011
2012-13	89702	-0.70	300	10.29	3344
2013-14	90225	0.58	294	-2.00	3259
2014-15	92203	2.19	293	-0.34	3178

The area showed a declining trend up to 2010-11 and thereafter an increase. But the production showed a varying trend over the years. The trend chart is given below.



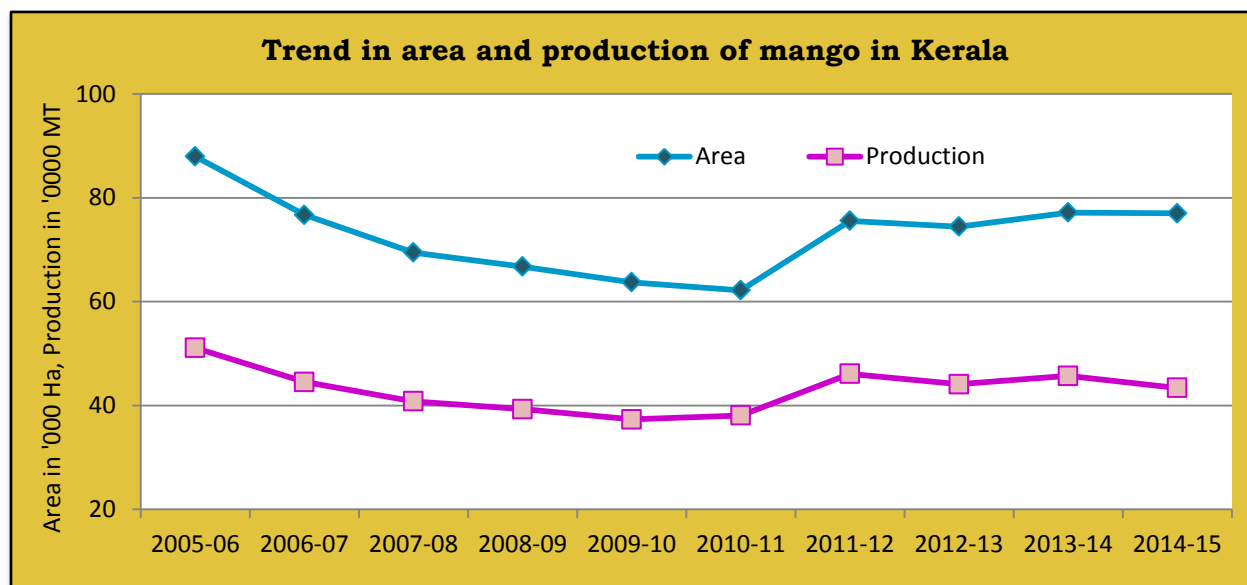
9.4 Production of mango in Kerala

Mango production in State constitutes 4.34 lakh tonnes in the year 2014-15 with a negative growth rate of 5.01 percent over the previous year. The total area under this fruit crop is 77301 hectares. The area, production and productivity of mango in the State for the last ten years are given below.

Area: in Hectares, Production: in Tonnes, Productivity: in Kg/ Hectare

Year	Area	% variation	Production	% variation	Productivity
2005-06	87965	-2.94	511131	-2.70	5811
2006-07	76709	-12.80	445423	-12.86	5807
2007-08	69482	-9.42	408143	-8.37	5874
2008-09	66754	-3.93	392916	-3.73	5886
2009-10	63751	-4.50	373168	-5.03	5854
2010-11	62200	-2.43	380859	2.06	6123
2011-12	75559	21.48	460424	21.02	6100
2012-13	74462	-1.45	441033	-4.32	5923
2013-14	77158	3.62	457067	3.64	5924
2014-15	77301	0.18	434129	-5.01	5616

The trend chart showing the area and production of mango during the above period is as follows. The production shows a declining trend up to 2010-11 and then a slight increase. But the area shows a declining trend up to 2009-10 and then an increase. Both area and production was maximum in 2004-05.



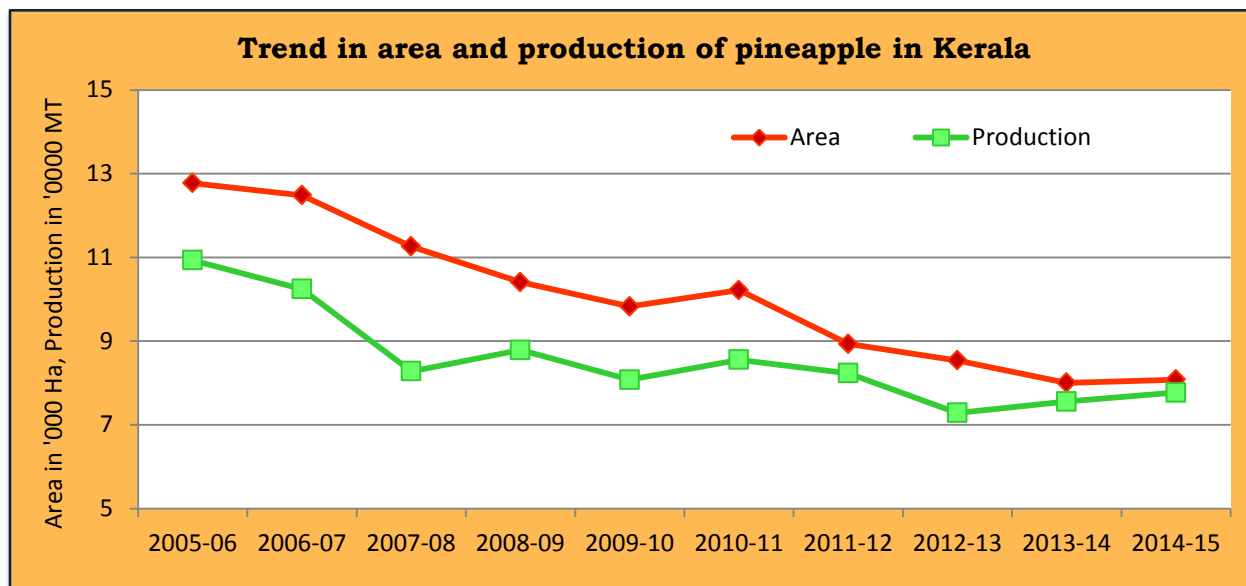
9.5 Production of pineapple in the State

The pineapple production in the State constitutes 777731 MT during the year 2014-15 and the area sown is 8080 hectares. Both area and production of this fruit has been declining in the State. The area, production and productivity of pineapple in the State for the last ten years are given below.

Area: in Hectares, Production: in Tonnes, Productivity: in Kg/ Hectare

Year	Area	% variation	Production	% variation	Productivity
2005-06	12775	0.75	109325	7.27	8558
2006-07	12486	-2.26	102449	-6.29	8205
2007-08	11262	-9.80	82782	-19.20	7351
2008-09	10407	-7.59	87882	6.16	8445
2009-10	9827	-5.57	80777	-8.08	8220
2010-11	10216	3.96	85526	5.88	8372
2011-12	8932	-12.57	82336	-3.73	9218
2012-13	8540	-4.39	72857	-11.51	8531
2013-14	8002	-6.30	75562	3.71	9443
2014-15	8080	0.97	77731	2.87	9620

The area and production trend chart is given below. Both area and production of pineapple are decreasing over the years except a few increases in some years.



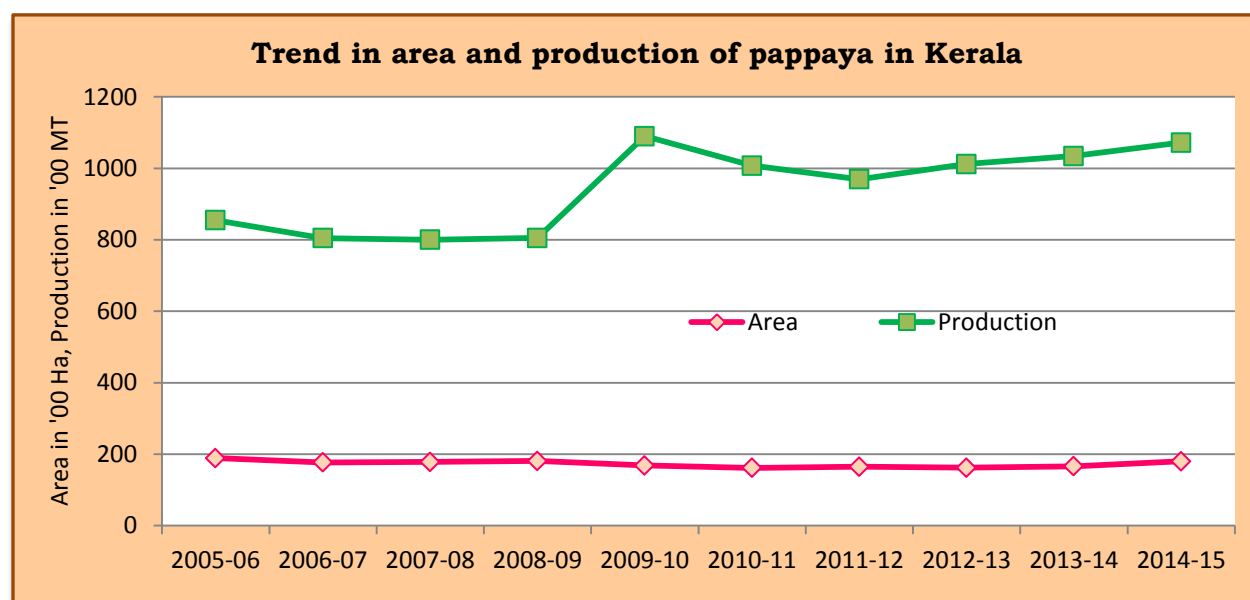
9.6 Production of Papaya in Kerala

Papaya is a tropical fruit having commercial importance because of its high nutritive and medicinal value. Papaya cultivation had its origin in South Mexico and Costa Rica. Total annual world production of papaya is estimated as 12.9 million tonnes of fruits. India is leading in the world in papaya production with an annual output of about 5.64 million tonnes. Other leading producers of papaya are Brazil, Mexico, Nigeria, Indonesia, China, Peru, Thailand and Philippines. The area, production and productivity of papaya in the State for the last ten years are given below.

Area: in Hectares, Production: in Tonnes, Productivity: in Kg/ Hectare

Year	Area	% variation	Production	% variation	Productivity
2005-06	18895	-2.12	85481	-2.38	4524
2006-07	17693	-6.36	80491	-5.84	4549
2007-08	17835	0.80	80008	-0.60	4486
2008-09	18080	1.37	80494	0.61	4452
2009-10	16840	-6.86	109007	35.42	6473
2010-11	16156	-4.06	100772	-7.55	6237
2011-12	16464	1.91	96925	-3.82	5887
2012-13	16197	-1.62	101207	4.42	6249
2013-14	16640	2.74	103420	2.19	6215
2014-15	17999	-8.17	107200	-3.65	5956

Kerala accounts for 12.5 percent in area and 1.8 percent in production of papaya in the country. Now the total area under papaya cultivation in the State is 17999 hectares and its production is 1.07 lakh metric tonnes. While looking at the trend, we can observe that area was decreasing over the years and production was decreasing up to 2007-08 and increased and reached its peak quantity in 2009-10 and again decreased up to 2011-12 following an increase again. The trend chart is given below.



9.7 Production of cashew in Kerala

Kerala is in the 4th position in the production of cashew among the Indian States after Maharashtra, AP and Odisha. The State is sharing 4.8 percent in area under cashew cultivation in the country and 4.4 percent in its production. India is in 3rd position in cashew production in the world with 7.53 lakh tonnes after Vietnam (12.37 lakh tonnes) and Nigeria (8.35 lakh tonnes). Brazil is the native of this spice and this country is now in 4th rank in the production of cashew nuts in the world with 2.30 lakh tonnes annually. Cashew has arrived in India during the 15th century AD. Among the districts in Kerala, Kannur is leading in area under cashew crop followed by Kasaragode, Malappuram and Palakkad.

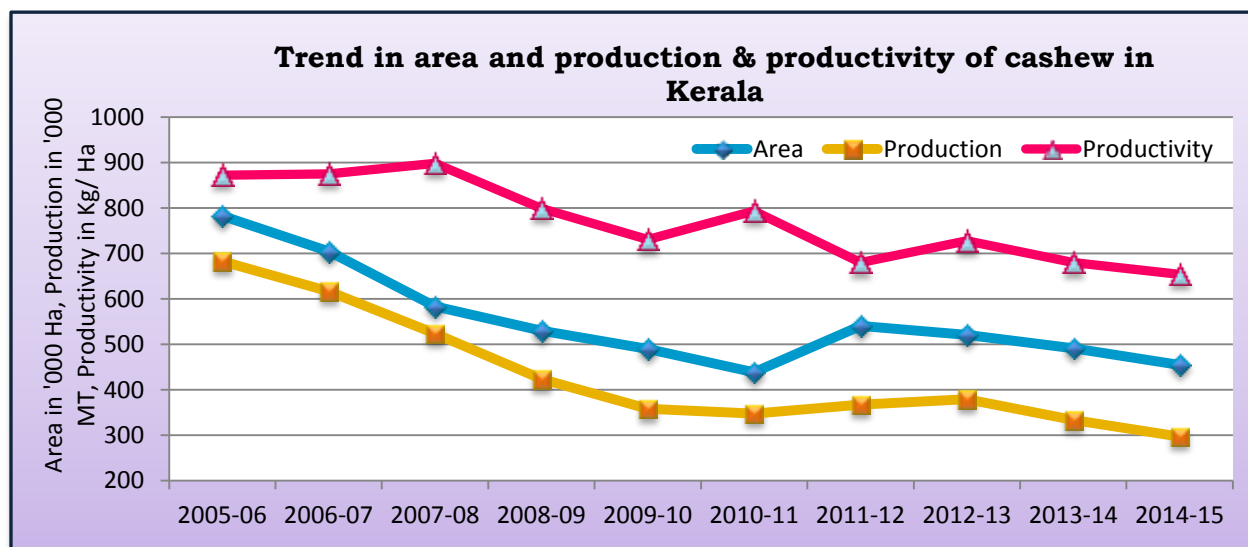
The total area under cashew sown in Kerala is 45436 hectares, and during the period of last 10 years the area has decreased by 42 percent. State contributed 29715 tonnes of raw cashew in 2014-15 and a decline of 56 percent has occurred from 2005-06. During the year of formation of Kerala, that is in 1955-56, the State has produced 58000 tonnes of cashew. The production of cashew has increased to 83000 tonnes in 1960-61 and further to 104600 tonnes in 1991-92. The area, production and

productivity of cashew in the State from 2005-06 to 2014-15 is given in the following table.

Area: in Hectares, Production: in Tonnes, Productivity: in Kg/ Hectare

Year	Area	% variation	Production	% variation	Productivity
2005-06	78285	-4.00	68262	12.67	872
2006-07	70463	-9.99	61680	-9.64	875
2007-08	58381	-17.15	52402	-15.04	898
2008-09	53007	-9.21	42334	-19.21	799
2009-10	48972	-7.61	35818	-15.39	731
2010-11	43848	-10.46	34752	-2.98	793
2011-12	54052	23.27	36743	5.73	680
2012-13	52086	-3.64	37919	3.20	728
2013-14	49105	-5.72	33375	-11.98	680
2014-15	45436	-7.47	29715	-10.96	654

The trend chart showing the area, production and productivity of cashew in the State is given below. Both area and production show almost the same trend of declining over the years. Productivity shows a varying trend, anyhow it is decreasing.



9.8 Production of tapioca in Kerala

During 1956-57, Kerala had 85 percent share in total area under tapioca in the country and 81 percent share in production. During this period of 57 years, the area under tapioca cultivation in the State has declined by 68 percent, but the production has been increased by 74 percent. The following table shows the share in area and

production of tapioca in the State to all India during the year 1956-57 and 2013-14 and its changes during the period.

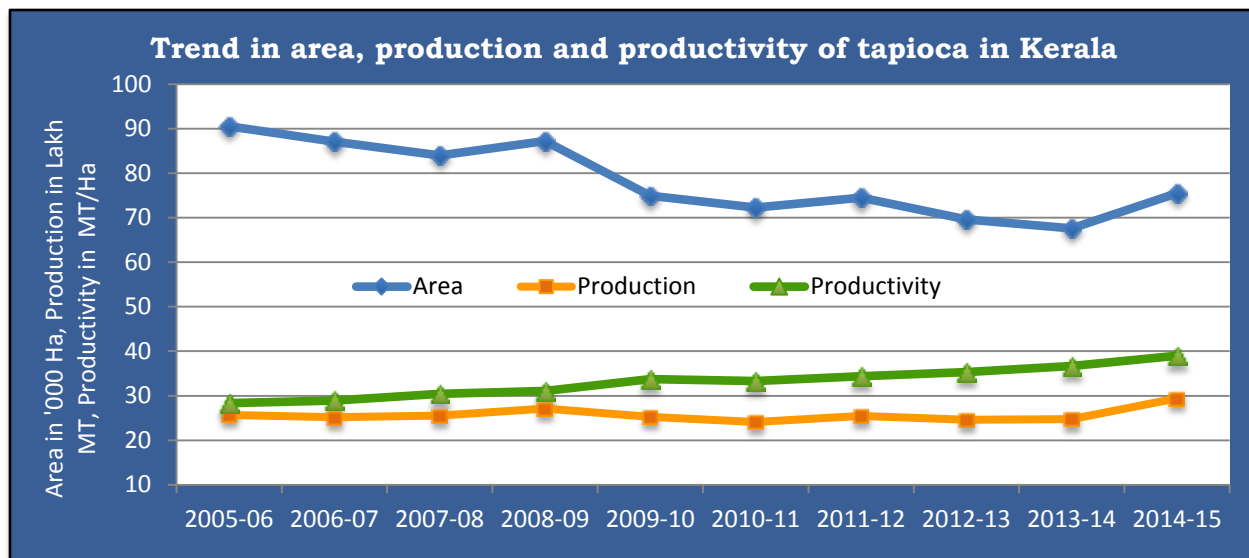
Year	Area (in '000 Ha)			Production (in '000 MT)		
	Kerala	India	% share	Kerala	India	% share
1956-57	208.41	246.46	84.56	1426.00	1759.00	81.07
2013-14	67.58	228.28	29.60	2479.07	8139.43	30.46
% Variation	-67.57	-7.38	-64.99	73.85	362.73	-62.43

During 1955-56, Kollam district contributed the largest share of the State's production of tapioca followed by Alappuzha. Kollam still continues to maintain its virtual monopoly in the production of tapioca in Kerala, the district accounts for 22 percent of the State's production of tapioca. The next biggest producer now is Thiruvananthapuram with about 20 percent share. The area, production and productivity of tapioca in the State during the period from 2005-06 to 2014-15 is given below.

Area: in Hectares, Production: in Tonnes, Productivity: in Kg/ Hectare

Year	Area	% variation	Production	% variation	Productivity
2005-06	90539	2.32	2568284	7.01	28367
2006-07	87128	-3.76	2518999	-1.92	28911
2007-08	83990	-3.60	2556455	1.49	30438
2008-09	87241	3.87	2712114	6.09	31088
2009-10	74925	-14.12	2525384	-6.89	33737
2010-11	72284	-3.52	2408962	-4.61	33326
2011-12	74498	3.06	2547399	5.75	34419
2012-13	69586	-6.59	2458515	-3.49	35331
2013-14	67589	-2.87	2479070	0.84	36679
2014-15	75493	11.69	2943919	18.75	38996

The graph showing the area, production and productivity trend of tapioca in Kerala from 2005-06 to 2014-15 is given below.

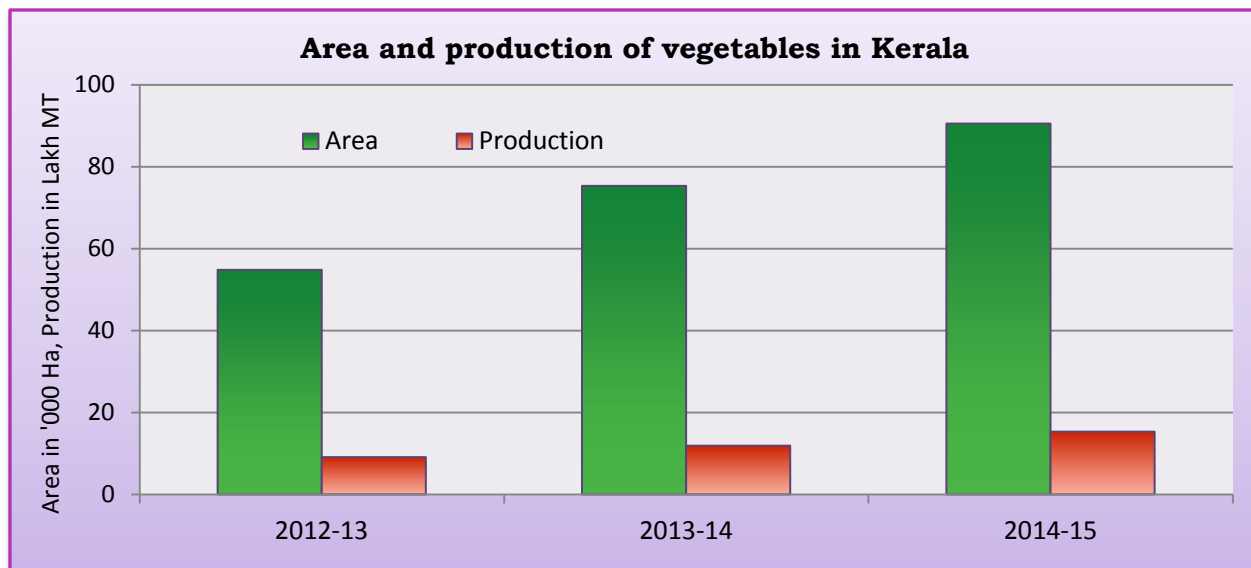


9.9 Vegetable production in Kerala

During the year 2014-15 the State has produced 15.32 lakh metric tonnes of vegetables as against 11.90 lakh tonnes in 2013-14. The estimated total area under vegetable cultivation in Kerala during 2014-15 is 90553 hectares, which recorded an increase of 20 percent from the previous year. The area and production of vegetables in the State during the last three years is given in the following table.

Area in Hectares and Production in Lakh Tonnes

Year	Area	% increase	Production	% increase
2012-13	54820		9.10	
2013-14	75320	37.40	11.90	30.77
2014-15	90533	20.20	15.32	28.74



9.10 Schemes on development of vegetables and fruits

The schemes implemented by the department of Agriculture for the development of vegetables and fruits in Kerala during the period from 2005-06 to 2014-15 are detailed below. These schemes are implemented in the State through VFPCCK, SHM, Horticorp and Department of Agriculture.

1. VFPCCK Kerala- Production and distribution of quality planting materials

This scheme is implemented through Seed Production Centre of VFPCCK in Alathur, Palakkad district. The fund is provided under the head of account 2401-00-103-82. The year wise budget allocation and its financial progress of this scheme under the above head of account are as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	50.00	50.00	50.01	100
2008-09	25.00	25.00	25.00	100

2. Development of Vegetables- Vegetable promotion through department of Agriculture

The production of vegetables in the State is not sufficient to meet the requirements. The VFPCCK, Department of Agriculture, SHM and Local Self Governments are involved in the promotion of vegetables. This scheme is implemented

under the head of account 2401-00-119-85. To increase the production of vegetables in the State, implementation of vegetable garden in schools, establishment of irrigation units, conduct of training programmes, promotion of homestead vegetable cultivation, etc. are the main components of this scheme. From 2012-13 onwards, this scheme has been implemented as 'Vegetable Development programme (VDP)' by giving more thrust for production of vegetables by adding more components such as school garden, project based cultivation, homestead cultivation through school students, terrace cultivation, vegetable clusters, fallow land cultivation, seed kit distribution through media etc. The financial performance of this scheme is (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2008-09	60.00	191.88	186.29	97
2009-10	125.00	125.00	124.80	100
2010-11	307.00	307.00	286.31	93
2011-12	350.00	350.00	345.59	99
2012-13	4250.00	4313.70	4307.18	100
2013-14	5625.00	5625.00	5346.69	95
2014-15	6400.00	6400.00	5912.56	92

The physical progress of VDP is as follows (Area in Hectares, Production in MT)

Components	2012-13		2013-14		2014-15	
	Area	Production	Area	Production	Area	Production
School garden	100	1078	104	1178	98	1274
Project based cultivation	84	852	62	852	77	1055
Homestead cultivation through school students	9849	89240	10062	100503	21936	245704
Terrace cultivation	483	4668	326	2859	1289	15104
District clusters	5270	63211	12505	172727	4015	89303
Fallow land cultivation	0	0	1186	27982	514	7999
Others	0	0	352	3901	5496	88926
Total	15786	159049	24598	310002	33425	449365

3. Development of Vegetables- Promotion of vegetable cultivation through VFPCCK in selected districts

This scheme is implemented under the head of account 2401-00-119-92. This programme is implemented through VFPCCK for promotion of vegetable cultivation in selected districts in the State. The financial progress is (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	400.00	400.00	405.71	101
2006-07	400.00	300.00	250.00	83
2008-09	40.00	40.00	40.00	100
2009-10	75.00	75.00	75.00	100
2010-11	225.00	225.00	225.00	100
2011-12	325.00	325.00	325.00	100
2012-13	600.00	600.00	600.00	100

4. Vegetable development support to VFPCCK- - Integrated food crop production

The outlay provided under this scheme is for the promotion of vegetable development programme implemented in the State and to initiate new programmes including credit support. This scheme is implemented under the head of account 2401-00-119-81. The financial progress of this scheme is (implemented in 2013-14 & 2014-15 only, Rs. in Lakhs)

year	Original outlay	Revised outlay	Accounts	%
2013-14	600.00	600.00	600.00	100
2014-15	600.00	600.00	600.00	100

5. Assistance to VFPCCK for participatory technology development

This State plan scheme is implemented under the head of account 2401-00-109-81. The financial progress is as follows (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	25.00	25.00	25.00	100
2008-09	25.00	25.00	25.00	100

6. Kerala State Horticultural Products Development Corporation- share capital contribution

The KSHPDC popularly known as Horticorp is a public sector undertaking primarily engaged in procurement and marketing of vegetables and fruits. The outlay provided is for meeting the share capital contribution to the corporation as seed money for availing bank credit for new investments. This scheme is implemented under the head of account 4401-00-190-97 and 4401-00-119-99. The financial progress of 4401-00-190-97 is as follows (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	5.00	30.00	30.00	100
2006-07	50.00	50.00	50.00	100
2007-08	5.00	55.00	55.00	100
2008-09	10.00	10.00	10.00	100
2009-10	10.00	10.00	10.00	100
2010-11	10.00	10.00	10.00	100
2011-12	10.00	10.00	10.00	100
2014-15	0.00	25.00	25.00	100

Share capital contribution has been provided to KSHPDC for implementing the scheme Harithavipanam of Horticorp under the head 4401-00-119-99 in 2010-11 and the financial progress is (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2010-11	0.00	500.00	500.00	100

7. State Horticulture Mission

State Horticulture Mission programme is a centrally assisted scheme established in the State during 2005-06 as a part of National Horticulture Mission and implemented in the ratio 85:15 (Central: State) to promote holistic strategies in horticulture sector through area based regionally developed projects covering fruits, vegetables, flowers, spices, medicinal plants in the State. Extension of area under vegetable & fruit crops, marketing and establishment of fruit processing units are the other objectives of this scheme. Since it is a mission mode programme of Govt of India, the fund is directly transferred to the implementing agency, and only the anticipated State share is provided in the State budget. The State share of this scheme is provided under the head of account 2401-00-119-86. The financial progress of the this scheme is as follows (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	300.00	300.00	300.00	100
2008-09	200.00	1326.60	1326.60	100
2009-10	200.00	200.00	200.00	100
2010-11	200.00	785.00	785.00	100
2011-12	1100.00	1773.24	1773.24	100
2012-13	1100.00	1100.00	1100.00	100
2013-14	1100.00	1100.00	1097.60	100
2014-15	1100.00	8900.00	2225.00	25

The physical achievement of the scheme State Horticulture Mission is given below.

Item	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Planting material (No.)	4	15	93	74	110	25	15	8	5	6
Vegetable seed production (Ha)	30	-	55	50	74	7	142	30	13	25
Establishment of new gardens (Ha)	84	9740	34583	25413	52319	26948	23496	8133	9839	8360
Rejuvenation/ replacement of senile Plantations (Ha)	225	13364	27723	21292	17570	8370	2134	1810	903	2633
Promotion of ENM/ IPM (Ha)	-	927	1042	8718	4321	3839	4586	4168	9057	1451
Organic farming										
Adoption of organic farming (Ha)	269	983	4809	2782	5683	399	1626	278	850	3500
Vermi compost units (No.)	50	1401	1188	939	1740	345	346	278	174	119
Organic certification (Ha)							500	250	600	2000
Distribution of honey bee colonies (No.)	4000		20000	-	20219	7400	4784	14550	-	3063
HRD including horticulture institute (No. of trainings conducted)	-	3	1404	6612	1027	16481	1184	9099	2229	1877
Establishment of marketing infrastructure	-	-	87	504	386	231	-	7	-	14

Horticulture mechanisation	-	-	-	-	-	336	1082	713	-	1360
Integrated post harvest management (No. of technology dissemination conducted)	-	-	-	-	-	3	65	7	-	10

8. Vegetable development- Macro Management (90% CSS)

This is a component of the Macro management scheme funded in 90:10 pattern by Govt of India for the development of vegetable cultivation in States. Govt of India has withdrawn this component in 2005-06 and there was no budget provision thereafter. The budget provision was in the head of account 2401-00-800-61 (05), and the financial achievement is given below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	5.00	45.00	5.00	45.00	0.37	3.33	7

9. Fruit development- Macro Management (90% CSS)

This is a 90% centrally sponsored macro management scheme for improving the production of fruits in the State and the fund was provided under the head of account 2401-00-800-61 (06). This scheme is withdrawn by Govt of India in 2005-06. The financial achievement is as follows. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	20.00	180.00	20.00	180.00	0.29	2.61	1

10. Horticulture Mission (100% CSS)

This plan scheme is implemented in 2006-07 only and the budget provision was under the plan head 2401-00-119-88. The financial performance is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2006-07	0.00	991.25	437.53	44

11. Women in Agriculture – Macro management (90% CSS)

This scheme is implemented under the head of account 2401-00-800-61(08). This scheme is intended for creation of employment in agriculture sector to women by providing financial assistance for cultivation of plantain & banana, vegetables & fruits, medicinal plants, garden plants, floriculture, anthurium etc and for starting manufacturing enterprises in bee culture, mushroom culture, vermi compost etc. This scheme was implemented from 2005-06 to 2008-09 during the study period. The financial performance of this scheme is given below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	36.50	328.50	36.50	328.50	28.86	259.74	79
2006-07	30.00	270.00	30.00	270.00	21.23	191.05	71
2007-08	3.78	34.04	3.78	34.04	1.87	16.83	49
2008-09	5.00	45.00	5.00	45.00	3.92	35.26	78

The physical achievement is given below.

Item	2005-06	2006-07	2007-08	2008-09
Training to farm women group	430	180	10	390
Training to officers	3	8	0	NA

12. Cashew development- Macro management (90% CSS)

This 90% centrally sponsored scheme has budget provision in 2005-06 year only and is under the head of account 2401-00-800-61 (04). The physical achievement is rehabilitation for 974.5 hectares of cashew plantation area. The financial progress is shown below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	50.00	450.00	50.00	450.00	37.35	336.15	75

13. Macro management schemes (90%CSS)- Floriculture

This is also a macro management CSS with 90% support from Govt of India implemented in 2005-06 for the development of floriculture in Kerala. The plan head

of this programme is 2401-00-800-61 (17) and the financial progress is shown below.
(Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	21.00	189.00	21.00	189.00	0.67	6.03	3

14. Macro management schemes (90%CSS)- Medicinal and aromatic plants

This is another 90% CSS macro management scheme intended for the development of medicinal and aromatic plants implemented in 2005-06. The budget head was 2401-00-800-61 (18) and there was no achievement. The budget details are as follows.
(Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	5.00	45.00	5.00	45.00	0.00	0.00	0

15. Macro management schemes (90%CSS)- One time ACA for the uplift of Urban/ Rural farmers through the devt of floriculture/ medicinal plants and intercrops/ mixed crops

This is another 90% CSS scheme implemented in 2005-06 for uplifting farmers through cultivation of medicinal plants, mixed crops and flowering plants. The head of account is 2401-00-800-61 (21) and the financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	0.00	0.00	50.00	450.00	48.86	439.74	98

16. Floriculture

This development scheme for floriculture in Kerala was implemented in 2006-07 under the plan head 2401-00-108-40. The financial achievement was 100%. The details are as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2006-07	100.00	100.00	100.00	100

Chapter 10

SPICES AND PLANTATION CROPS

Spice is one of the key areas where Kerala dominates in the global market in view of its intrinsic quality. The State is known for its vast area of spice plantations. All the spices have some or other medicinal value. Kerala spices acquired a wide fame across the universe for its aroma and flavour. The major export items of spices from Kerala are pepper, ginger, nutmeg etc. State continues to enjoy the monopoly in area and production of pepper. The State's spice trade to western world begins from the arrival of Vasco Da Gama, a Portuguese explorer in 1498 in Kozhikode.

10.1 Plantation crops

The State has a substantial share in the four plantation crops viz rubber, tea, coffee and cardamom. These four crops together occupy 7.05 lakh hectares accounting for 34 percent of the net cropped area in the State and 38 percent of the area under these crops in the country. Kerala accounts for 83.7 percent of the total production of rubber, 60.7 percent of cardamom, 21.9 percent of coffee and 5.3 percent of tea in the country.

10.2 World scenario in tea production

Tea cultivation in India was introduced by the British when they found that climate and soil conditions of the State's hilly areas are very much suitable for its cultivation. Today, India is the 2nd largest tea producer after China in the world with 12 % export share in international market. The country is the fourth largest tea exporter in the world. In 2013-14, India's tea production was 1209 million kilograms and this account for 24 percent of total production in the whole world. The total area under tea plantations in all India is 5.64 lakh hectares.

Quantity: in Million Kg

Country	Production		Export	
	Quantity	% share	Quantity	% share
China	1924	39	332	18
India	1209	24	219	12
Kenya	432	9	494	26
Sree Lanka	340	7	309	17
Others	1011	21	509	27
Total	4916	100	1863	100

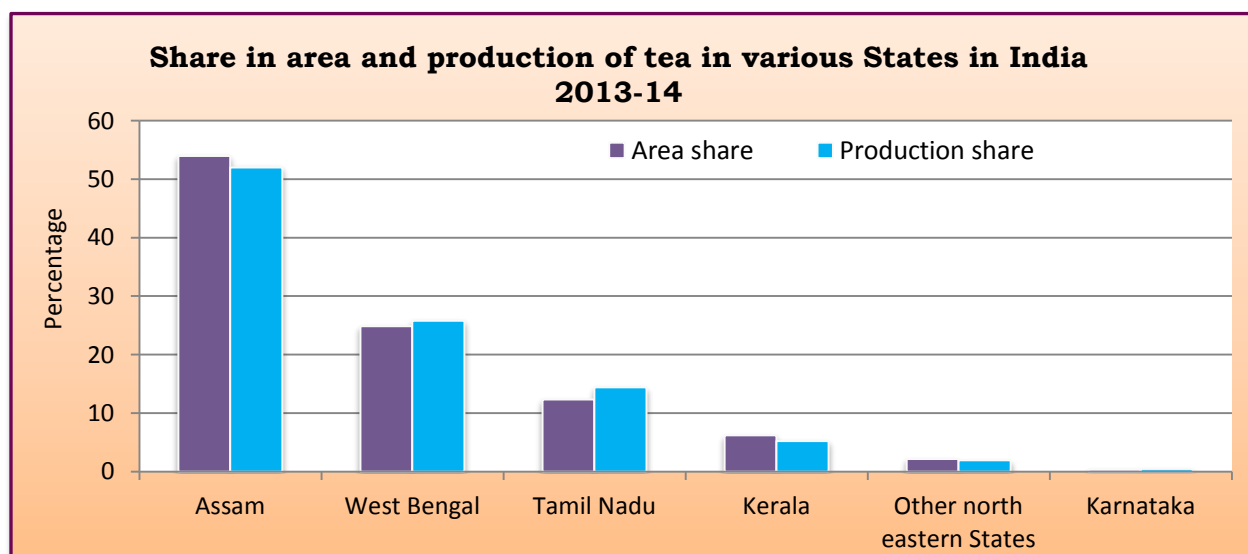
Source: Tea Board, India, Annual Report 2013-14

10.3 Tea production in various States in India

The total production of tea in the country during 2013-14 was 12.08 lakh tonnes. Kerala is in fourth position in area and production of tea in India. Assam is the leading producer of tea with 53.9% share followed by West Bengal (24.9% share). Assam accounts for 6.29 lakh tonnes of tea production in 2013-14. The area and production of tea by different States in India during the year 2013-14 is given in the following table.

State	Area (in '000 hectares)	Area share	Production (in Million Kg)	Production share
Assam	304.4	53.97	629.05	52.04
West Bengal	140.44	24.90	312.10	25.82
Other north eastern States	12.29	2.18	23.92	1.98
Tamil Nadu	69.62	12.34	174.71	14.45
Kerala	35.01	6.21	63.48	5.25
Karnataka	2.22	0.39	5.52	0.46
All India	563.98	100.00	1208.78	100.00

Source: Tea Board, India, Annual Report 2013-14



10.4 Kerala's share in tea production in India

The share of the State in tea production is in a declining trend even though the all India area and production of tea is increasing. By comparing the facts and figures of tea cultivation in 1955-56 with 2013-14, we can see that the area has increased by 73.3% and production by 76.4% in the country. But the State's contribution in area

has declined by 49.4%. The production share of Kerala has been increased from 5 percent in 1956-57 to 5.3 percent in 2013-14. Idukki district is leading in cultivation of tea in Kerala followed by Wayanad, Thiruvananthapuram, Palakkad, Kollam and Thrissur. The following table shows the share of Kerala in tea cultivated area and its production in the country in 1955-56, 1995-96 and 2013-14 and the rate of change among them during the period.

Area: in Hectares, Production: in Tonnes

Year	Area			Production		
	Kerala	India	% share	Kerala	India	% share
1956-57	39910	325360	12.27	34180	685200	4.99
1995-96	34656	430888	8.04	64802	749888	8.64
2013-14	35010	563980	6.21	63480	1208780	5.25
% Variation during 1956-2014	-12.28	73.34	-49.39	85.72	76.41	5.28

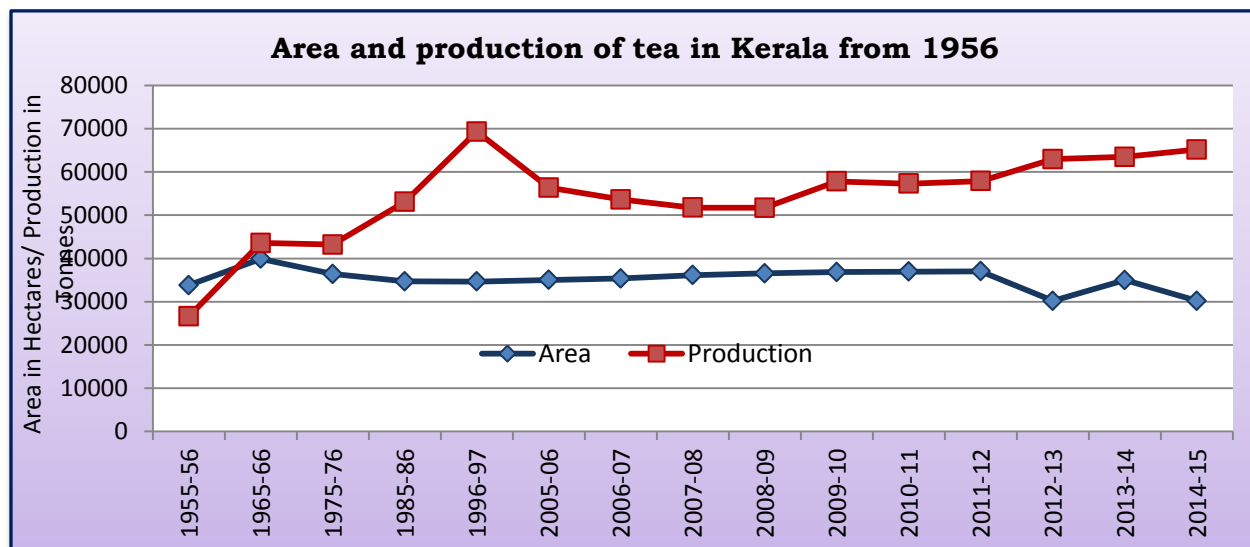
10.5 Growth of tea plantations in Kerala since 1955

The area and production of tea in the State since from its formation in 1956 is given in the following table. Both the area and production showed a varied trend over the years. During this period the production of tea was maximum in 1996-97 with 69319 tonnes and the area sown was maximum in 1965-66 with 39921 hectares.

Area in Hectares, Production: in Tonnes

Year	Area	Production
1955-56	33826	26615
1965-66	39921	43567
1975-76	36412	43215
1985-86	34711	53104
1996-97	34656	69319
2005-06	35043	56384
2006-07	35365	53659
2007-08	36131	51754
2008-09	36557	51726
2009-10	36845	57810
2010-11	36965	57291
2011-12	37028	57904
2012-13	30205	62963
2013-14	35010	63480
2014-15	30205	65174

The following trend chart depicts the fall and rise in figures of area and production of tea right from the formation of the State of Kerala.



10.6 Production of coffee in Kerala

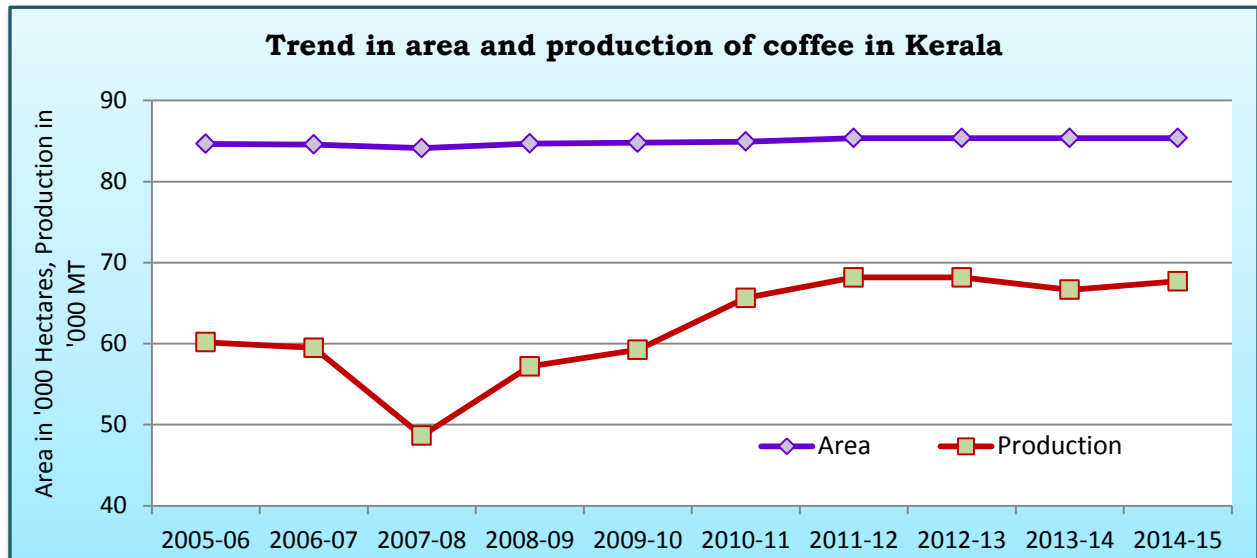
Kerala occupies 85359 hectares of area under coffee cultivation and has an annual production of 67700 tonnes as per the data pertaining to the agricultural year 2014-15. During the year 2012-13, India has produced 3.2 lakh tonnes of coffee out of the world production of 84.5 lakh tonnes and the country's share is 3.8 percent with a ranking of 7th position after Brazil, Vietnam, Colombia, Indonesia, Ethiopia and Mexico. And the State's contribution in coffee production in the country is about 22 percent. It is a highly export oriented crop and more than 80 percent of the domestic production in the country is exported.

During the period of 1956-57 the area under coffee in the State was 18640 hectares with about 18 percent share in the total area under coffee in India. At that time the production share of coffee was only 10 percent with 4340 tonnes. The area and production of coffee in the State during the period 2005-2015 is shown below.

Area: in Hectares, Production: in Tonnes

Year	Area	% variation	Production	% variation
2005-06	84644	0.00	60175	10.82
2006-07	84571	-0.09	59475	-1.16
2007-08	84115	-0.54	48650	-18.20
2008-09	84696	0.69	57200	17.57
2009-10	84796	0.12	59250	3.58
2010-11	84931	0.16	65650	10.80
2011-12	85359	0.50	68175	3.85
2012-13	85359	0.00	68175	0.00
2013-14	85359	0.00	66645	-2.24
2014-15	85359	0.00	67700	1.58

The trend line showing the variation of area and production of coffee during the period is depicted in the chart given below. During the period the lowest production is recorded in 2007-08.



10.7 Cardamom production in Kerala

Kerala, the land of spices, is dominating in the production of cardamom in our country and due to its intrinsic quality this has much demand in international market and so we got much foreign exchange from its export to other countries. During 1951-52, Kerala had 50% share in area under cultivation of cardamom in the country, and now it has decreased to 43%. While considering the production side, Kerala had 56% in 1951-52 and now it is 61%. The area under cultivation in the State has increased

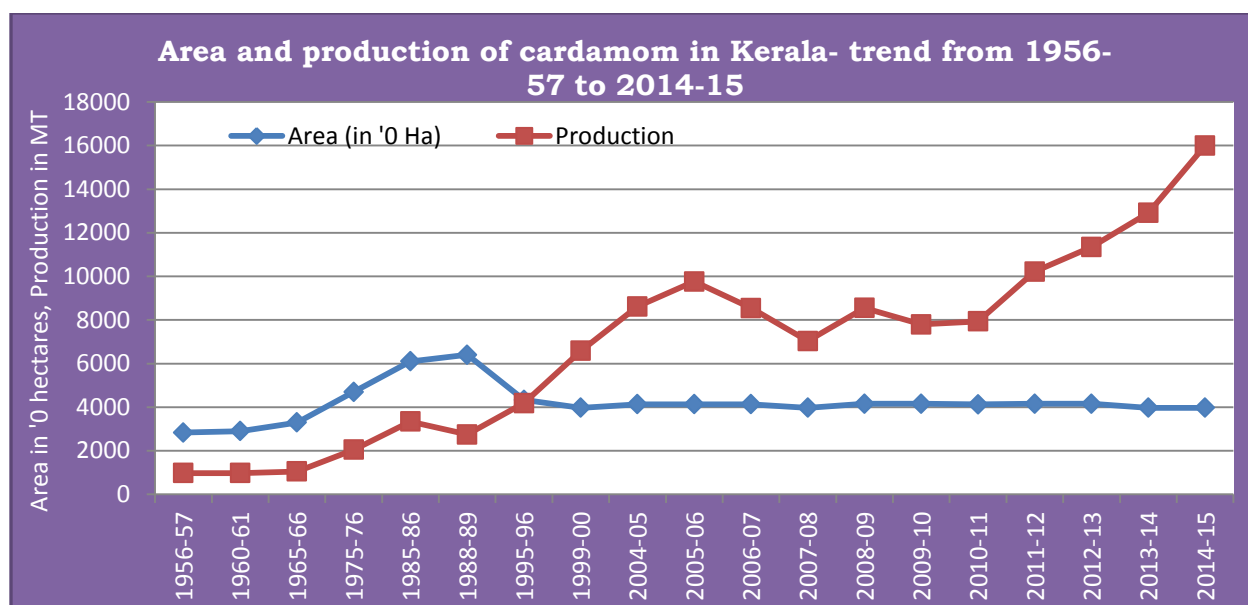
by 76% during this period, but the production has increased by 1388% due to the increased productivity.

	Area (in Hectares)			Production (in MT)		
	Kerala	India	% share	Kerala	India	% share
1951-52	22557	45070	50.05	800	1430	55.94
1995-96	43320	83700	51.76	4185	6338	66.03
2013-14	39730	92840	42.79	12910	21280	60.67
% change from 1951-52	76.13	105.99	-14.51	1513.75	1388.11	8.46

The following table gives the area and production of cardamom in Kerala right from 1956-57 till 2013-14.

Year	Area (in Hectares)	Production (in Tonnes)
1956-57	28328	1240
1960-61	29000	980
1965-66	33000	1050
1975-76	47000	2050
1985-86	61000	3340
1988-89	64000	2750
1995-96	43320	4185
1999-00	39730	6585
2005-06	41367	9765
2006-07	41362	8545
2007-08	39763	7031
2008-09	41588	8550
2009-10	41593	7800
2010-11	41242	7935
2011-12	41600	10222
2012-13	41600	11350
2013-14	39730	12910
2014-15	39730	16000

The following trend chart depicts the fall and rise in area and production of cardamom in the State from 1956-57 to 2014-15. We can see that the gap between the trend lines of area sown and quantity of production reduced and both lines crossed in 1995-96 then increased over the years except in 2006-07, 2007-08 and 2009-10 during which there was a fall.



10.8 District wise production of cardamom in Kerala

The following table gives the change in area and production of cardamom in the districts in Kerala from 1999-00 to 2014-15. During this period the State has witnessed a decrease of 4.24 percent in area under this spice but an increase in production by 143 percent. Idukki district dominates both in area and production of cardamom and has a share of 94 percent in production followed by Wayanad (4.3%) and Palakkad (1.8%).

Area: in Hectares, Production: in Tonnes

District	1999-00		2004-05		2014-15	
	Area	Production	Area	Production	Area	Production
Kollam	0	0	7	0	0	0
Pathanamthitta	664	61	664	82	665	8
Kottayam	200	21	200	25	85	5
Idukki	32667	6077	32856	7931	31810	15000
Palakkad	2919	180	2756	229	2755	290
Malappuram	70	0	70	3	70	2
Kozhikkode	220	0	220	0	220	5
Wayanad	4108	245	4110	345	4125	690
Kannur	128	0	128	0	0	0
Kasaragod	515	1	367	1	0	0
Total	41491	6585	41378	8616	39730	16000

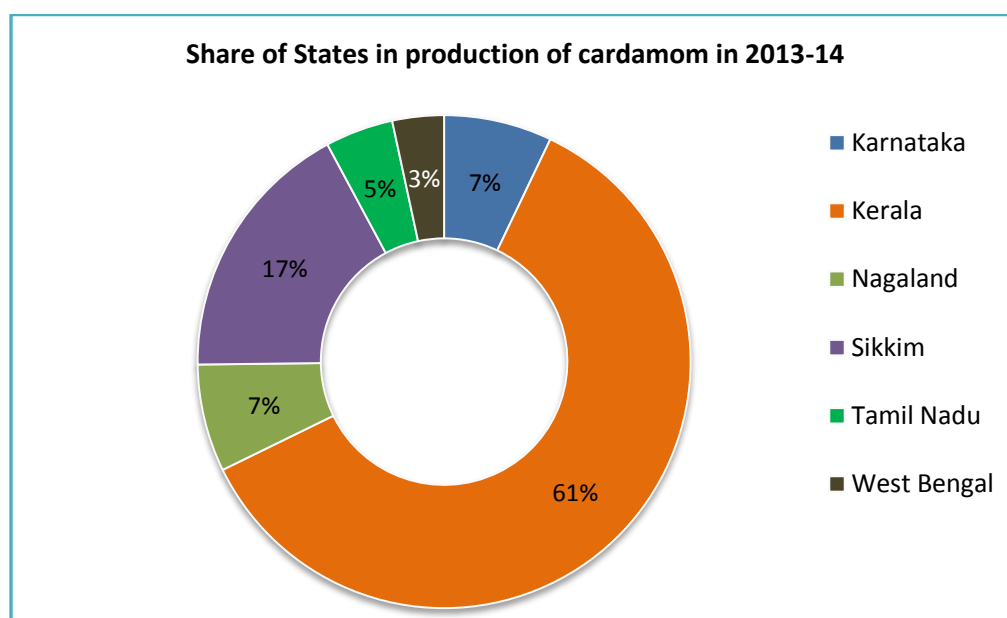
10.9 Area and production of cardamom in other States in India

The area and production of cardamom in producing States in the country during the year 2013-14 and their share is given below.

State	Area (in Hectares)	% share in area	Production (in MT)	% share in production
Karnataka	18680	20.12	1510	7.10
Kerala	39730	42.79	12910	60.67
Nagaland	3200	3.45	1500	7.05
Sikkim	22760	24.52	3690	17.34
Tamil Nadu	5160	5.56	950	4.46
West Bengal	3310	3.57	720	3.38
All India	92840	100.00	21280	100.00

Source: National horticulture database 2014, M/o Agriculture, Govt of India

The State wise share in production of cardamom based on the data for the year 2013-14 is given in the following pie graph. Our State dominates in the production of this spice in India with 61 percent share followed by Sikkim with 17 percent.



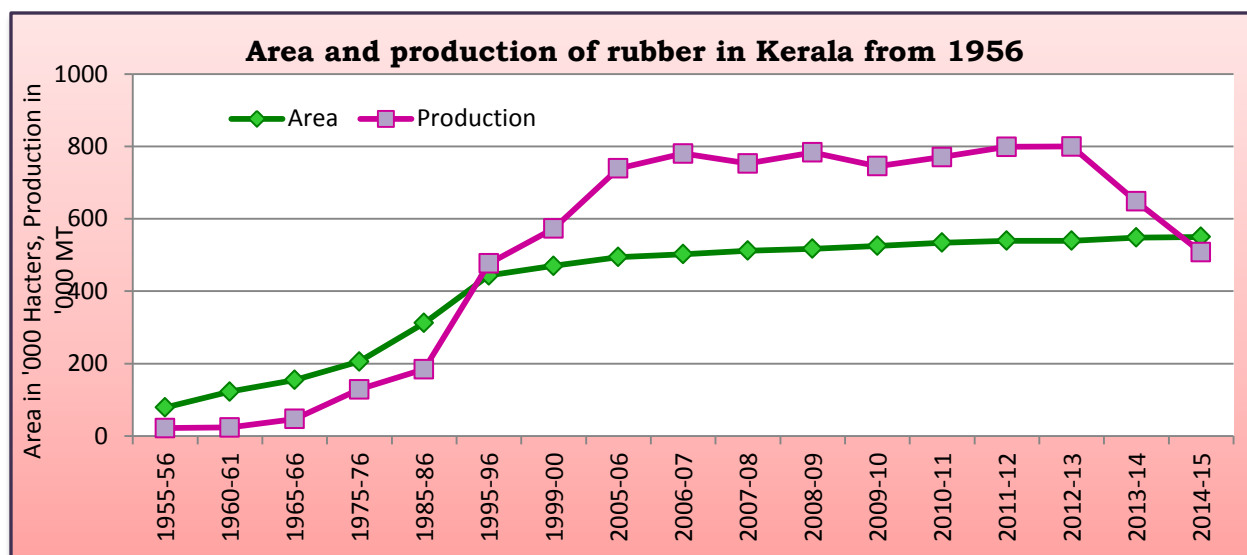
10.10 Rubber cultivation in Kerala

Rubber plant is not the native plant of Kerala or India. Due to similar climate conditions in Kerala, Dutch colonials introduced this cash crop in Kerala. Kerala is the leading producer of rubber in the country, but the contribution of the State is

declining. The following table gives the area and production of rubber in the State since its formation in 1956.

Year	Area (in Hectares)	Production (in MT)
1955-56	78457	21680
1960-61	122628	23175
1965-66	154878	46953
1975-76	205383	128769
1985-86	312000	184563
1995-96	443300	476495
1999-00	469924	572820
2005-06	494400	739225
2006-07	502240	780405
2007-08	512045	753135
2008-09	517475	783485
2009-10	525408	745510
2010-11	534230	770580
2011-12	539565	798940
2012-13	539565	800050
2013-14	548225	648220
2014-15	549955	507700

The trend in area cultivated and production of natural rubber in our State from 1955-56 to 2014-15 is shown in the line chart given below. Compared to area cropped, the production was low in the beginning and it increased continuously, crossed the area trend line in 1990s, and recorded short falls in 2007-08 and 2009-10 and a sharp decline in 2013-14 and 2014-15. The overall growth in area under rubber cultivation in Kerala during 1955-2015 was 601 percent and that of production was 2242 percent.



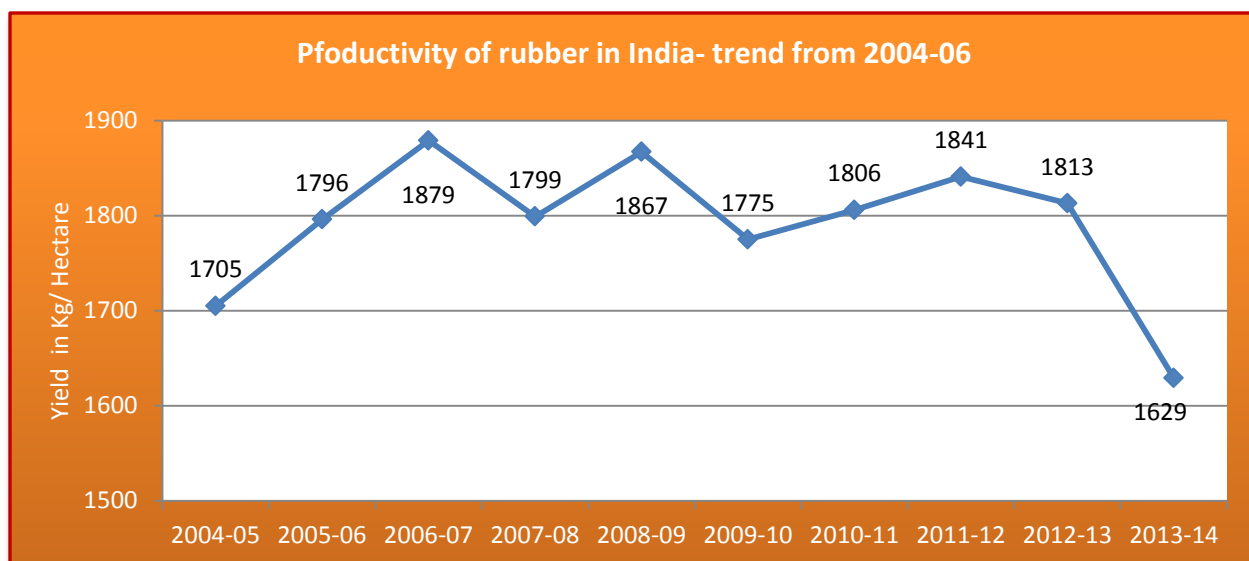
10.11 Share of Kerala in rubber production in India

During 1965-66, our State's share in area under rubber crop was 94 percent, after 30 years it became 86 percent and now it has reduced by 70.5 percent even though the area cropped has increased by 254 percent. While going to the production side, the share of Kerala has increased from 93 percent to 94 percent during 1965-96 and now reduced to 84 percent. The net rate of decline in percentage share of production of rubber from Kerala is 10 percent. The reduction in share of Kerala is due to the increase in rubber cultivation in other States in the country. The share of the State in area and production of rubber in India in 1965-66, 1995-96 and 2013-14 is given in the following table.

Year	Area (in Hectares)			Production (in MT)		
	Kerala	India	% share	Kerala	India	% share
1965-66	154878	164713	94.02	46953	50530	92.92
1995-96	443300	515572	85.98	476495	506910	94.00
2013-14	548225	778400	70.43	648220	774000	83.75
% Growth from 1965-66	253.97	372.34	-25.06	1280.57	1431.76	-9.87

10.12 Productivity of rubber in India

The average yield of rubber (in Kg per Hectare) in the country during the period from 2004-05 to 2013-14 is given below. The data shows a varying trend over the years and a sudden fall in 2013-14.



10.13 Production and consumption of natural rubber in India

The production, consumption, imports and export of natural rubber in the country during the period 2004-2014 is given in the following table. It can be seen that the consumption is increasing and not in a proportion of production. (Unit in Tonnes)

Year	Production	Consumption	Import	Export
2004-05	749665	755405	72835	46150
2005-06	802625	801110	42285	73830
2006-07	852895	820305	89799	56545
2007-08	825345	861455	86394	60353
2008-09	864500	871720	77762	46926
2009-10	831400	930565	177130	25090
2010-11	861950	947715	190692	29851
2011-12	903700	964415	214433	27145
2012-13	913700	972705	262753	30594
2013-14	774000	981520	360263	5398

Source: Rubber Board, India

10.14 Pepper cultivation in Kerala

The Western Ghats of Kerala is the native of black pepper. India is the major producer, consumer and exporter of black pepper in the world. During 1955-56, Kerala was accounted for 90246 hectares of area under pepper with 97 percent share in the country's pepper cultivated area. Kerala still continues to maintain its monopoly

in area and production of black pepper. The table given below gives the area, production and productivity of black pepper cultivation in Kerala and all India during the year from 2005-06 to 2014-15 as per the data available from the State and central Govt sources.

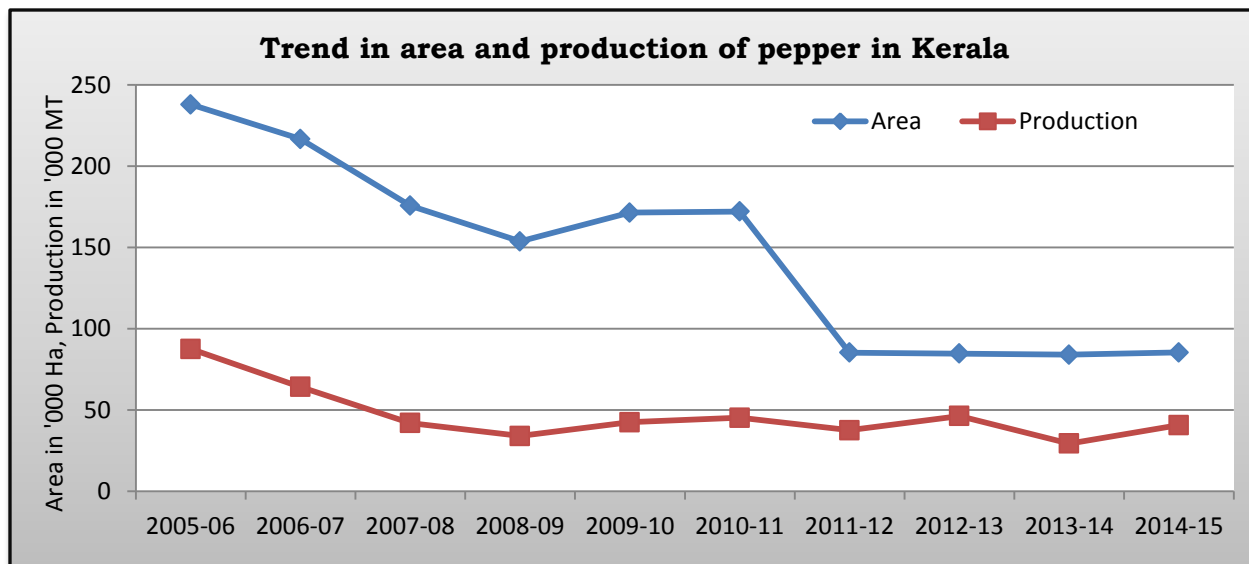
Unit: Area in Hectare, Production: in Tonnes, Yield: in Kg/ Hectare

Year	Area		Production		Productivity	
	Kerala	India	Kerala	India	Kerala	India
2005-06	237998	260230	87605	92900	368	357
2006-07	216709	245960	64264	69010	297	281
2007-08	175679	197000	41952	47060	239	239
2008-09	153711	238710	33991	47400	221	199
2009-10	171489	195920	42459	51020	248	260
2010-11	172182	184000	45267	52000	263	183
2011-12	85335	200300	37501	40600	445	203
2012-13	84707	124600	46298	52600	547	422
2013-14	84065	121700	29408	48700	350	400
2014-15	85431	-	40690	-	476	-

Sources: Department of Economics & Statistics, Govt of Kerala & Agriculture Statistics at a Glance 2014, M/o Agriculture, Govt of India

The methodology of estimation of area under pepper has been revised by an expert committee constituted by the Department of Economics and Statistics in 2010-11 (Old stand per hectare of pepper was 560 and new stand per hectare 1111). This resulted in a downward fall of area under pepper from 2011-12 and hence the productivity level of Kerala has increased.

While considering the district wise production of pepper, Kottayam district contributed the biggest share in 1956-57, and now it is Idukki district, followed by Wayanad. Karnataka and Tamil Nadu are the other major States engaged in production of black pepper.



10.15 Kerala's share in pepper production

During the year 1957-58, the State has accounted for 97 percent share in both area and production of pepper in India. Now the area share has been declined to 68 percent and production share to 58 percent. During the period of 56 years, the area under pepper in the State has been declined by 6.86 percent and the production has increased by 15.8 percent. The following table shows the figures of area and production of pepper in Kerala and India during the above mentioned period.

Year	Area (in '000 Ha)			Production (in '000 MT)		
	Kerala	India	% share	Kerala	India	% share
1957-58	90.25	92.68	97.38	25.40	26.00	97.69
2013-14	84.06	123.81	67.89	29.41	50.87	57.81
% Variation	-6.86	33.60	-30.28	15.79	95.65	-40.82

10.16 Ginger cultivation in Kerala

During 1957-58 Kerala was accounted for 9272 hectares of area under ginger with 58.7 percent share in the country. The production share of ginger in 1956-57 was 65.7 percent. Now, the share has declined to 3.4 percent in area and 3.3 percent in production. The total area under ginger cultivation in Kerala in 2014-15 is 4800 hectares and the production is 22989 tonnes. The area, production and productivity of ginger in the State during the period of ten years from 2005-06 to 2014-15 and their percentage variation over the previous year is given in the following table.

Area: in Hectares, Production: in Tonnes, Yield: in Kg/ Hectare

Year	Area	% variation	Production	% variation	Productivity
2005-06	12226	22.4	56288	24.2	4604
2006-07	11082	-9.4	42496	-24.5	3835
2007-08	8865	-20.0	31726	-25.3	3579
2008-09	7421	-16.3	30809	-2.9	4152
2009-10	5408	-27.1	28603	-7.2	5289
2010-11	6088	12.6	33197	16.1	5453
2011-12	6908	13.5	37125	11.8	5374
2012-13	4505	-34.8	22064	-40.6	4898
2013-14	4538	0.7	21521	-2.5	4742
2014-15	4800	5.77	22989	6.82	4789

The following table gives a comparison in area under ginger cultivation in the country as a whole and its production during the last five years from 2009-10. The State's contribution in ginger cultivation and its production is decreasing over the years.

Area: in '000 Hectares, Production: in '000 MT

Year	Area			Production		
	Kerala	India	%	Kerala	India	%
2009-10	5.41	108.0	5.0	28.60	385	7.4
2010-11	6.09	149.1	4.1	33.20	702	4.7
2011-12	6.91	155.0	4.5	37.13	756	4.9
2012-13	4.51	136.0	3.3	22.06	683	3.2
2013-14	4.54	140.0	3.2	21.52	688	3.1

Source: M/o Agriculture & Cooperation, Govt of India

While considering the productivity of cured ginger at all India level, the average yield per hectare in kilogram is 4914 during 2013-14. The all India productivity is higher than the State yield rate and shows an increasing trend. The national productivity of ginger is 5022 in 2012-13 and 4877 in 2011-12.

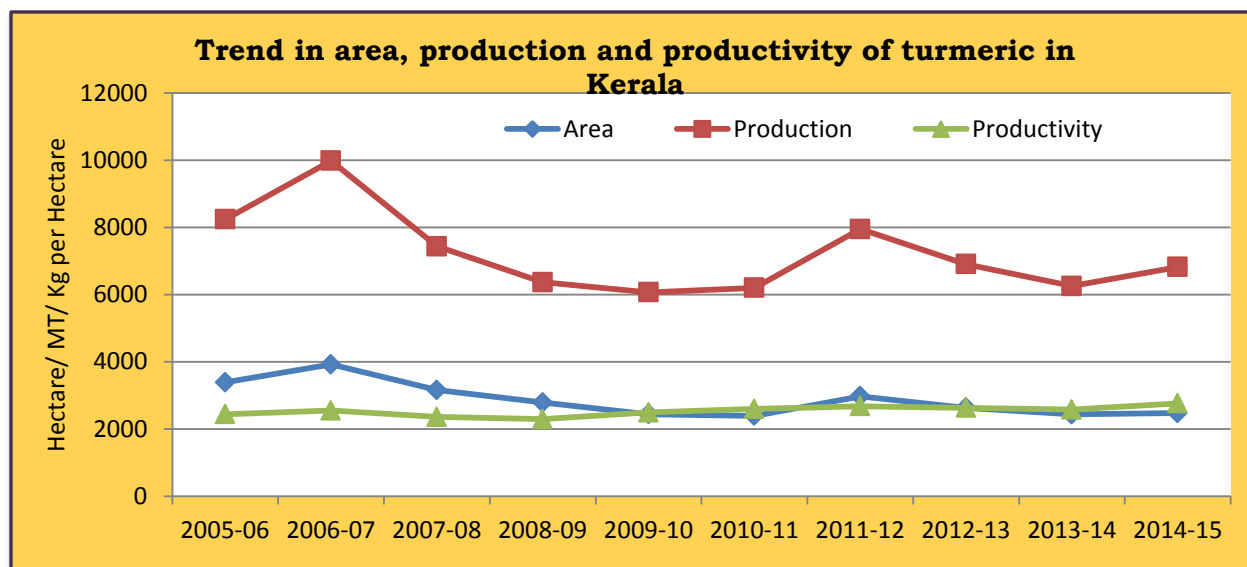
10.17 Turmeric cultivation in Kerala

The area, production and yield rate of cured turmeric in the State during the last 10 years is provided in the following table. From 2007-08 onwards both cropped area and production is decreasing except in 2011-12.

Area: in Hectares, Production: in Tonnes, Yield: in Kg/ Hectare

Year	Area	% variation	Production	% variation	Productivity
2005-06	3384	17.46	8237	31.92	2434
2006-07	3917	15.75	9980	21.16	2548
2007-08	3155	-19.45	7434	-25.51	2356
2008-09	2782	-11.82	6364	-14.39	2288
2009-10	2438	-12.37	6066	-4.68	2488
2010-11	2391	-1.93	6198	2.18	2592
2011-12	2970	24.22	7946	28.2	2675
2012-13	2628	-11.52	6904	-13.11	2627
2013-14	2430	-7.53	6253	-9.43	2573
2014-15	2470	1.64	6820	9.07	2761

The trend chart showing the change in area, production and productivity of turmeric in the State from 2005-06 to 2014-15 is given below. The path of area and production shows a same proportion over the years.



The all India area under turmeric and its production during the last five years from 2009-10 and the State's share is shown in the table given below. The contribution of the State in turmeric cultivation (both area and production) is decreasing over the years and the share is just one percent in area and 0.5 percent in production.

Area: in '000 Hectares, Production: in '000 MT

Year	Area			Production		
	Kerala	India	%	Kerala	India	%
2009-10	2.44	181.0	1.3	6.07	793	0.8
2010-11	2.39	195.1	1.2	6.20	993	0.6
2011-12	2.97	219.0	1.4	7.95	1167	0.7
2012-13	2.63	194.0	1.4	6.90	971	0.7
2013-14	2.43	232.7	1.0	6.25	1229	0.5

Source: M/o Agriculture & Cooperation, Govt of India

The all India productivity of cured ginger is much higher than the State yield rate, and is 4381, 5090, 5328, 5005 and 5252 during 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 respectively.

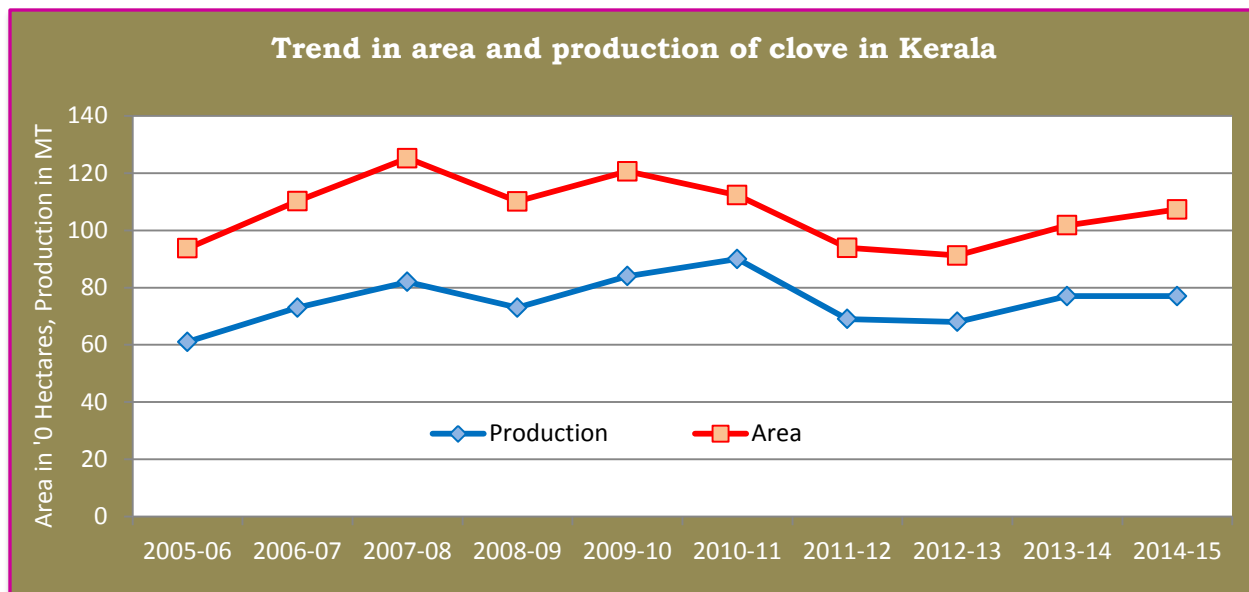
10.18 Cultivation of clove in Kerala

Clove is another important spice produced in Kerala and from this we get much foreign currency. The area under cultivation of clove, its production and productivity during the period 2005-2015 is give below.

Area: in Hectares, Production: in Tonnes, Productivity: in Kg/ Hectare

Year	Area	% variation	Production	% variation	Productivity
2005-06	937	11.41	61	15.09	65
2006-07	1102	17.61	73	19.67	66
2007-08	1252	13.61	82	12.33	65
2008-09	1101	-12.06	73	-10.98	66
2009-10	1206	9.54	84	15.07	70
2010-11	1123	-6.88	90	7.14	80
2011-12	939	-16.38	69	-23.33	74
2012-13	912	-2.88	68	-1.45	75
2013-14	1018	11.62	77	13.24	76
2014-15	1073	5.40	77	0.00	72

The area and production of this spice shows a varying trend over the years. The following graph depicts the trend in area sown (in '0 Hectares) and quantity produced (in Tonnes) during the period. Both the trend lines show the same proportion in rise and fall except in 2010-11.



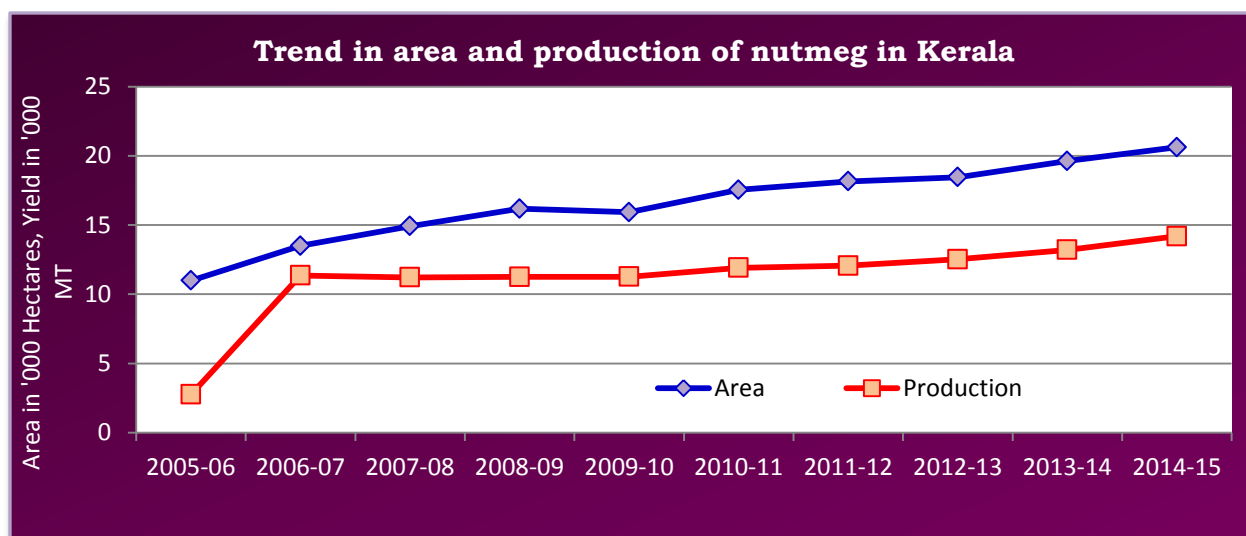
10.19 Cultivation of nutmeg in the State

The following table shows the data on area cultivated by nutmeg, its production and productivity over the years from 2005-06 to 2014-15. The data shows that both area and production are continuously increasing over the years except some minor decline in 2007-08 and 2009-10. But the productivity shows a varying trend.

Area: in Hectares, Production: in Tonnes, Productivity: in Kg/ Hectare

Year	Area	% variation	Production	% variation	Productivity
2005-06	10984	1.89	2746	1.70	250
2006-07	13494	22.85	11361	313.73	842
2007-08	14921	10.58	11217	-1.27	752
2008-09	16187	8.48	11249	0.29	695
2009-10	15931	-1.58	11269	0.18	707
2010-11	17545	10.13	11911	5.70	679
2011-12	18161	3.51	12059	1.24	664
2012-13	18462	1.66	12528	3.89	679
2013-14	19627	6.31	13212	5.46	673
2014-15	20627	5.10	14193	7.42	688

The graph showing the trend of above time series data on area and production of nutmeg is given below.



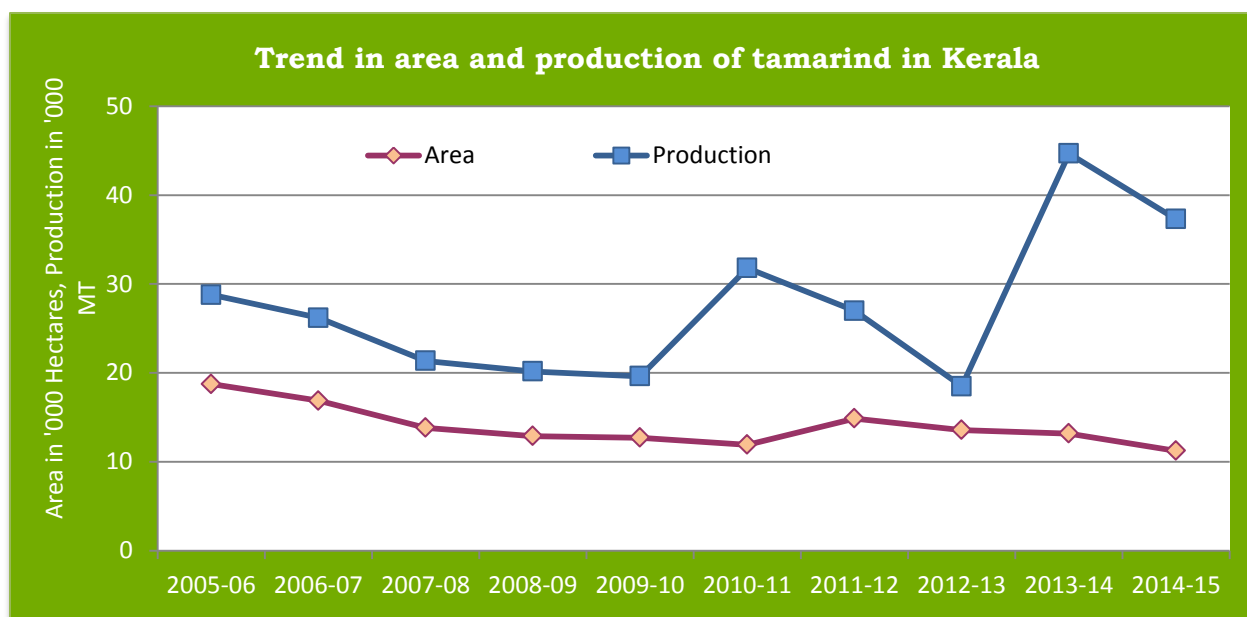
10.20 Cultivation of tamarind in Kerala

The area, production and productivity of tamarind in our State are given in the following table.

Area: in Hectares, Production: in Tonnes, Productivity: in Kg/ Hectare

Year	Area	% variation	Production	% variation	Productivity
2005-06	18747	-4.18	28777	-3.90	1535
2006-07	16876	-9.98	26188	-9.00	1552
2007-08	13821	-18.10	21345	-18.49	1544
2008-09	12889	-6.74	20164	-5.53	1564
2009-10	12708	-1.40	19627	-2.66	1544
2010-11	11924	-6.17	31794	61.99	2666
2011-12	14879	24.78	26991	-15.11	1814
2012-13	13572	-8.78	18492	-31.49	1363
2013-14	13172	-2.95	44680	141.62	3392
2014-15	11240	-14.67	37300	-16.52	3318

The trend chart showing the area and production of tamarind in the State during the period of 10 years from 2004-05 is given below.



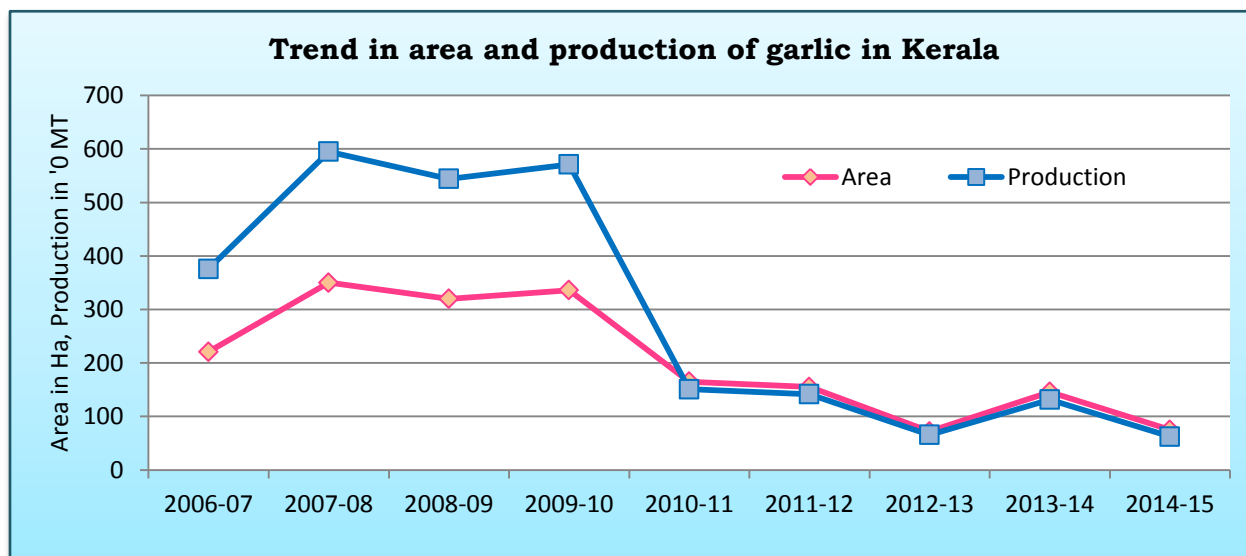
10.21 Garlic cultivation in Kerala

Garlic is another one spice produced in the State. This spice is cultivated in Idukki district only. The area and production of garlic from 2005-06 to 2014-15 in Kerala is shown in the following table.

Area: in Hectares and Production: in Tonnes

Year	Area	% variation	Production	% variation
2005-06	65	-78.76	1105	-78.76
2006-07	221	240.00	3757	240.00
2007-08	350	58.37	5950	58.37
2008-09	320	-8.57	5440	-8.57
2009-10	336	5.00	5712	5.00
2010-11	165	-50.89	1508	-73.60
2011-12	155	-6.06	1417	-6.03
2012-13	72	-53.55	658	-53.56
2013-14	146	102.78	1314	99.70
2014-15	75	-48.63	625	-52.43

Both area and production of garlic show a varying trend during the period. The trend chart is shown below.



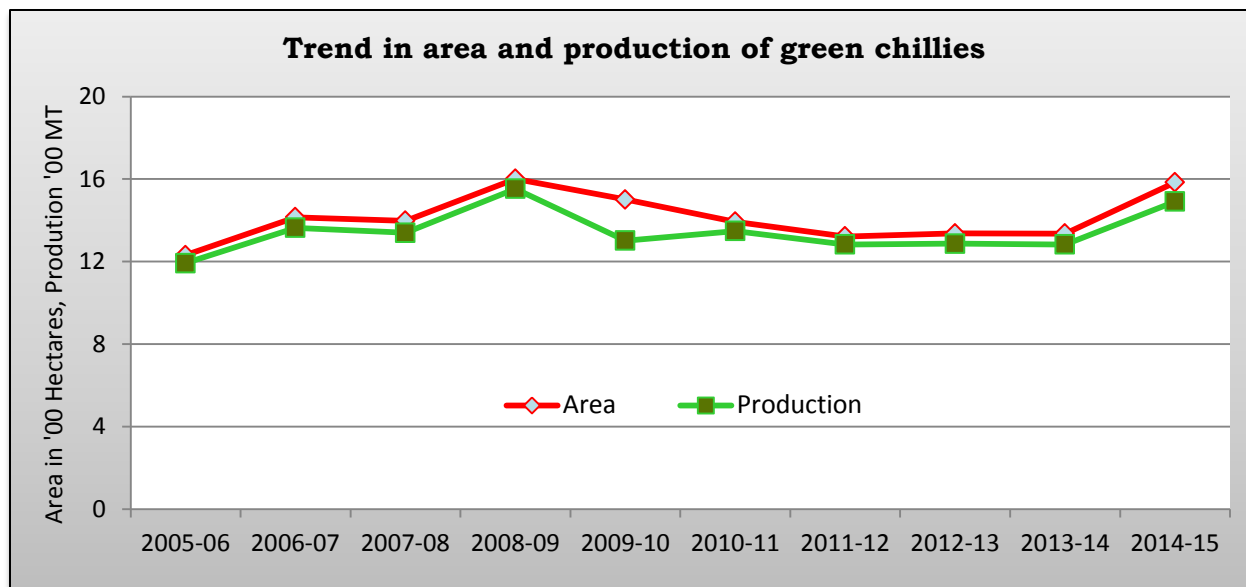
10.22 Cultivation of green chillies in Kerala

Green chillies are used as a vegetable and spice. Chillies powder is commonly used in India and western countries. The area, production and productivity of green chillies in the State during the last ten years is given below.

Area: in Hectares and Production: in Tonnes

Year	Area	% variation	Production	% variation
2005-06	1231	49.57	1192	53.81
2006-07	1415	14.95	1364	14.43
2007-08	1398	-1.20	1340	-1.76
2008-09	1601	14.52	1553	15.90
2009-10	1501	-6.25	1302	-16.16
2010-11	1393	-7.20	1348	3.53
2011-12	1322	-5.10	1283	-4.82
2012-13	1337	1.13	1287	0.31
2013-14	1336	-0.07	1283	-0.31
2014-15	1584	18.56	1491	16.21

The trend in area and production of green chillies in the State is depicted in the chart given below. Both the area and production was maximum in 2008-09 during the period, thereafter a declining trend is seen.



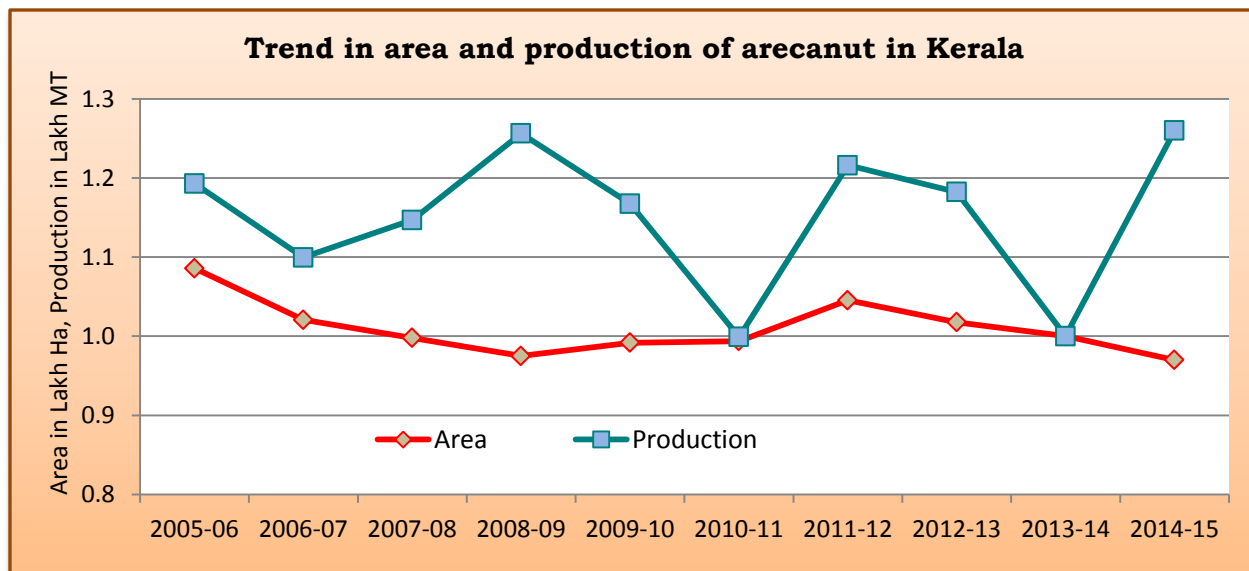
10.23 Production of arecanut in Kerala

The State occupies 96686 hectares of area under cultivation of arecanut and a production of 125926 metric tonnes during the year 2014-15. Kerala contributed 22 percent area and 16 percent production in the cultivation of arecanut in the country. During the period of 1956-57, the State occupied 57 percent share in area under arecanut in the country and 46.2 percent in production. The total area under arecanut in Kerala in 1956-57 was 60461 hectares. The area and production of arecanut in Kerala from 2005-06 to 2014-15 is shown in the following table.

Area: in Hectares and Production: in Tonnes

Year	Area	% variation	Production	% variation	Productivity
2005-06	108590	0.95	119309	8.13	1099
2006-07	102078	-6.00	109968	-7.83	1077
2007-08	99787	-2.24	114690	4.29	1149
2008-09	97492	-2.30	125654	9.56	1289
2009-10	99188	1.74	116763	-7.08	1177
2010-11	99384	0.20	99909	-14.43	1001
2011-12	104548	5.20	121623	21.73	1163
2012-13	101775	-2.65	118233	-2.79	1162
2013-14	100008	-1.74	100018	-15.41	1000
2014-15	96686	-3.32	125926	25.90	1302

The trend in area and production of arecanut in the State is depicted in the chart given below. The production was maximum in 2014-15 and least in 2010-11.



10.24 Schemes on development of spices and plantation crops

The plan schemes implemented by the department of agriculture for the development of spices and plantation crops in the State during the period from 2005-06 to 2014-15 through State budget is explained below.

1. Pepper development- Macro management scheme (90% CSS)

This 90% centrally sponsored scheme has budget provisions in 2005-06 and 2006-07 only and the head of account is 2401-00-800-61 (02). The financial progress is as follow. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	200.00	1800.00	200.00	1800.00	47.35	426.15	24
2006-07	0.00	0.00	0.28	2.47	0.18	1.64	66

2. Control of yellowing in arecanut – Macro management (75% CSS)

This 90% centrally sponsored macro management scheme has budget provision in 2005-06 and 2006-07 and was under the head of account 2401-00-800-61 (20), but implemented in 2005-06 only. The financial achievement is given below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	0.00	219.00	0.00	219.00	0.00	218.98	100
2006-07	200.00	600.00	80.00	720.00	0.00	0.00	0

3. Macro management schemes (90%CSS)- Other spices (ginger & turmeric)

This is a macro management scheme of Govt of India with 90% financial support for the development of spices ginger and turmeric. The scheme was implemented in 2005-06 and 2006-07. The head of account is 2401-00-800-61 (03) and the financial progress is shown below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	100.00	900.00	100.00	900.00	0.03	0.00	0
2006-07	0.00	0.00	0.00	0.00	0.39	3.55	-

4. Pepper package in Wayanad

Agrarian economy of Wayanad district is dominated by pepper and coffee production. A pepper rehabilitation package was introduced in Wayanad to revitalize the pepper economy of the district. This scheme is implemented in 2010-11 and 2011-12 under the plan head 2401-00-108-37. The financial performance of this scheme is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2010-11	600.00	600.00	550.71	92
2011-12	650.00	650.00	645.25	99

5. Development of spices

Spice crops account for a predominant position in the agrarian economy of the State. Apart from foreign exchange earnings, organic spices as well as value added spices like oils and oleoresins are assuming significance. This State plan scheme for the development of spice crops in the State is implemented from 2012-13 to 2014-15 under the head of account 2401-00-108-59. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2012-13	1900.00	1338.40	1002.50	75
2013-14	1600.00	1600.00	1595.13	100
2014-15	1525.00	1525.00	1437.55	94

Chapter 11

CROP INSURANCE AND FARMER'S WELFARE

Keeping in view the risk involved in agricultural production and to insure the farming community against various risks, State and Central governments have introduced many crop insurance schemes covering various notified crops in Kerala. The financial and available physical progress in these schemes implemented during the period from 2005-06 to 2014-15 are summarised in this chapter.

Debt relief schemes and other farmer's welfare schemes are also mentioned in this chapter. The schemes are the following.

1. Crop insurance fund including paddy crop insurance – production risk management

Twenty five crops are covered under this insurance scheme. Paddy, coconut, arecanut, cardamom, cashew, pepper, plantain, rubber, pineapple, coffee, tapioca, tea, ginger, turmeric, cocoa, groundnut, sesame, vegetables, nutmeg, clove, betel leaves, tubers, pulses, sugarcane and tobacco are the crops covered for insurance. The insurance claim will be disbursed for damage of crops due to drought, flood, landslide, earthquake, thunderstorm, forest fire, hurricane, wild life attack, sea attack, etc. The outlay provided in the budget for this scheme is in the head of account 2401-00-110-99. The financial achievement is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	75.00	75.00	75.00	100
2006-07	100.00	100.00	100.00	100
2007-08	100.00	100.00	100.00	100
2008-09	100.00	100.00	100.00	100
2009-10	100.00	100.00	100.00	100
2010-11	100.00	100.00	100.00	100
2011-12	100.00	100.00	100.00	100
2012-13	920.00	920.00	920.00	100
2013-14	570.00	570.00	570.00	100
2014-15	500.00	500.00	500.00	100

The component wise physical achievement of this scheme is given below.

Year	Farmers enrolled (in No.)	Premium amount collected (Rs. in Lakhs)	Claim issued (no. of farmers)	Claim amount (Rs. in Lakhs)
2005-06	3932	-	-	-
2006-07	12295	-	-	-
2007-08	9847	4.82	4035	30.55
2008-09	36171	49.77	3326	85.05
2009-10	27532	50.48	-	80.95
2010-11	58341	17.17	685	17.95
2011-12	39373	3.95	4599	4.36
2012-13	36260	50.96	4653	184.76
2013-14	141776	107.27	13697	918.00
2014-15	131950	125.68	4369	305.38

2. National Agricultural Insurance Programme

With a view to provide financial support to farmers in the event of loss/ failure of any of the notified crops in the notified areas as a result of natural calamities, pests and diseases, NAIS was introduced during the year 1999-2000 year in place of erstwhile Comprehensive Crop Insurance Scheme (CCIS). Six crops are covered under this national insurance scheme; they are paddy, banana and plantain, tapioca, turmeric, ginger and pineapple. The budget amount is provided in the head of account 2401-00-110-97. The financial performance is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	100.00	274.89	233.11	85
2006-07	200.00	160.00	16.59	10
2007-08	200.00	120.00	114.07	95
2008-09	100.00	267.23	267.23	100
2009-10	150.00	150.00	77.90	52
2010-11	150.00	150.00	150.00	100
2011-12	150.00	150.00	0.00	0
2013-14	100.00	100.00	100.00	100

The cumulative physical achievement since inception of the scheme NAIS is as follows.

1	No. of farmers covered	461282
2	Area covered	414742 hectares
3	Sum insured	87179.13 lakhs
4	Premium collected	1881.85 lakhs
5	Claims issued	2868.11 lakhs
6	No. of famers benefitted	85315

3. Coconut Palm Insurance Scheme (CPIS)

This insurance scheme is implemented from 2008-09 onwards and is administered jointly by Agriculture Insurance Company of India Ltd, Coconut Development Board and State Govt. The insurance coverage is being given to yielding coconut aging from 7 to 60 years for all tall varieties of palm and to age group of 4 to 60 years for dwarf and hybrid varieties. The amount is utilized for paying 25% of the insurance premium amount. The head of account of this scheme is 2401-00-110-95. The financial performance of this scheme is given below (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2008-09	100.00	50.00	0.00	0
2009-10	25.00	25.00	25.00	100
2010-11	25.00	25.00	0.00	0
2011-12	25.00	25.00	0.00	0
2013-14	25.00	25.00	0.00	0

The cumulative physical achievement in Kerala (as on 31-12-2014) is as follows.

1	No. of farmers insured	52063
2	No. of palms insured	2081126
3	Sum insured	22469.28 lakhs
4	Gross premium collected	118.40 lakhs
5	Claim settled	256.88 lakhs
6	No. of farmers benefitted	5799

4. Govt of India supported insurance scheme (One time ACA)

National Crop Insurance Scheme (NCIP) was revamped in 2013-14 and the ongoing schemes namely NAIS, WBCIS & CPIS have been merged with the scheme. This scheme is implemented in 2014-15 year only. The head of account of this scheme is 2401-00-110-87. The financial performance of this scheme is as follows. (Rs. In Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2014-15	100.00	100.00	100.00	100

5. Contingency programme to meet natural calamities

This scheme is implemented from 2006-07 onwards. The objective of this scheme is for procurement and creation of buffer stock of short term duration varieties and high yield varieties of seeds and distribution among the farmers affected with natural calamities. Kerala State Seed Development Agency (KSSDA) is the authority entrusted with the procurement and creation of stock of seeds. The budget provision is under the head of account 2401-00-800-91. The financial performance is given below. (Rs. In Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2006-07	25.00	25.00	23.81	95.2
2007-08	20.00	1220.00	1220.78	100
2008-09	20.00	1300.00	1299.43	100
2009-10	20.00	20.00	20.09	100
2010-11	50.00	50.00	50.41	101
2011-12	50.00	105.00	105.97	101
2012-13	79.00	212.41	210.70	99
2013-14	80.00	80.00	97.40	122
2014-15	300.00	240.00	117.91	49

The physical achievement of this scheme is given below.

Year	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Quantity of seeds distributed (in MT)	226.5	153.2	144.1	211.04	540.9	509.5	316	1219.6	1219.6

6. Weather based insurance

With the objective of bringing more farmers under crop insurance fold and to overcome the shortcoming regarding delay in settlement of claims etc under NAIS, a pilot scheme WBCIS (weather based crop insurance scheme) was announced by Govt of India in 2007-08. WBICS indents to provide insurance protection to the farmers against adverse weather incidence, such as deficient and excess rainfall, high or low temperature, humidity etc which are deemed to impact adversely the crop production. This scheme is implemented in 2009-10, 2010-11, 2011-12 and 2013-14. The head of

account in which the budget outlay provided is 2401-00-110-94. The financial performance is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2009-10	25.00	65.20	65.20	100
2010-11	25.00	25.00	25.00	100
2011-12	25.00	100.00	100.00	100
2013-14	50.00	50.00	50.00	100

The cumulative physical achievement of this scheme in Kerala is given below

1	No. of farmers insured	98584
2	Area insured	70868 hectares
3	Sum insured	21405 lakhs
4	Gross premium	2208.87 lakhs
5	Claims settled	1455.81 lakhs
6	No. of farmers benefitted	59034

7. Paddy crop insurance

This insurance scheme for paddy is implemented in 2010-11 and 2011-12 years only. The head of account is 2401-00-110-92. The financial performance is (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2010-11	500.00	500.00	500.00	100
2011-12	400.00	400.00	400.00	100

8. Setting up of automatic weather stations for implementing weather insurance

An amount of Rs.55 lakhs is provided in the budget head 2401-00-110-89 in 2013-14 year only for establishing automatic rain gauges in the State for augmenting weather network for implementing weather insurance in more Blocks, but not implemented. The financial detail of this scheme is given below. (Rs. In Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2013-14	55.00	55.00	0.00	0

9. Vegetable crop insurance

Agriculture is often characterized by higher variability of production outcomes due to external factors like weather, pests and diseases, disasters etc. This scheme for vegetable crop insurance for supporting the vegetable development programme is implemented in 2013-14 under the head of account 2401-00-110-90. The financial progress is as follows. (Rs. In Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2013-14	150.00	150.00	150.00	100

10. Farmers counseling centres

This is a 100% centrally sponsored scheme implemented in 2007-08 and 2008-09 years only and was under the head of account 2401-00-800-44. The financial performance is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	50.00	50.00	49.86	100
2008-09	50.00	50.00	0.00	0

The physical achievement in 2007-08 is

Item	2007-08
Farmers counseling centres (No.)	1000
No. of farmers participated	26951

11. Special support scheme for farm sector- Debt relief commission

A Debt Relief Commission has been set up in the State as per the Debt Relief Act 2006 for identifying distress affected districts and crops based on the analysis, representations and special sittings. This is a State plan scheme implemented in the State during 2007-08 to 2011-12 under the head of account 2401-00-104-86 (01) for providing financial support to indebted farmers. The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	5000.00	5000.00	38.65	1
2008-09	5000.00	3320.00	2364.04	71
2009-10	1603.00	1603.00	1600.22	100
2010-11	1000.00	2500.00	2428.08	97
2011-12	800.00	800.00	800.00	100

12. Special support scheme for farm sector- Credit support

This plan scheme is implemented during period from 2006-07 to 2008-09 for helping the farming community with credit support and the plan fund is provided under the heads of account 2401-00-104-86 (02) and 2401-00-104-86. The financial progress is given below. (Rs. in Lakhs)

2401-00-104-86 (02)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	1000.00	1000.00	61.40	6
2008-09	550.00	550.00	30.56	6

2401-00-104-86

Year	Original outlay	Revised outlay	Accounts	%
2006-07	5679.00	15679.00	12964.80	83

13. Farmer's welfare programme

This State scheme is implemented in the State during the years from 2008-09 to 2011-12 for the purpose to mobilize a corpus fund seeking contributions from various agencies involved in agricultural development programmes for the welfare of farmers and agricultural labourers. The outlay provided is the corpus fund from the State share. The budget provision was under the plan head 2401-00-109-79. The financial progress is (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2008-09	100.00	500.00	500.00	100
2009-10	150.00	150.00	150.02	100
2010-11	208.00	208.00	208.00	100
2011-12	208.00	208.00	208.00	100

14. Farmers welfare fund board

This State sector plan scheme has been implementing from 2012-13 and the budget support is under the plan head 2401-00-109-76. However no financial progress is recorded during the period. The details are given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2012-13	250.00	175.00	0.00	0
2013-14	250.00	125.00	0.00	0
2014-15	25.00	25.00	0.00	0

Chapter 12

FARM MECHANISATION AND INFRASTRUCTURE

12.1 Mechanisation in production of major crops in Kerala

The extend of usage of machineries in production of major agricultural produces in the State based on the findings of the cost of cultivation survey conducted by the State Department of Economics and Statistics is analysed here. The crops covered under this survey are paddy, coconut, arecanut, banana, tapioca, ginger, turmeric and pepper. The crop wise percentage share in total cost of production by machinery labour cost from 2004-05 to 2013-14 is given in the following table.

Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Paddy-Autumn	10.3	10.4	9.6	10.5	11.0	14.0	15.3	10.4	14.9	11.0
Paddy-Winter	11.0	10.3	11.0	12.5	13.7	12.9	15.6	12.1	13.3	13.4
Paddy-Summer	11.1	11.7	11.7	12.2	14.0	15.2	16.0	10.2	11.7	7.4
Coconut	1.9	2.0	0.4	1.2	0.8	0.8	0.6	0.0	0.4	0.5
Arecanut	3.2	2.7	1.6	1.4	1.9	1.3	0.0	0.0	0.4	0.8
Tapioca	0.9	1.0	1.5	0.8	1.6	1.9	0.6	0.0	0.6	1.4
Banana	1.1	0.8	0.2	0.5	1.6	1.1	0.2	0.0	0.5	0.1
Pepper	0.3	0.6	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.1
Ginger	0.4	0.8	1.3	0.8	2.3	4.4	2.3	1.8	1.5	1.2
Turmeric	0.4	1.0	0.6	0.2	0.2	1.0	0.3	0.0	0.6	0.5

The crop wise actual cost of machinery labour per hectare in the production of major crops in the State during the period 2004-2014 is given in the following table. Paddy and ginger are the major crops utilizing machineries in farming compared to other crops. (Rs. per hectare)

Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Paddy-Autumn	2161	2185	2281	2534	3282	4471	5601	3898	5934	6505
Paddy-Winter	2292	2185	2823	3528	4397	4938	7115	5094	6467	7452
Paddy-Summer	2803	2625	2831	3403	4562	5553	6702	4387	5383	4239
Coconut	444	479	110	347	279	305	253	0	183	288
Arecanut	1152	801	574	665	931	623	0	0	178	501
Tapioca	354	293	600	412	799	1077	390	0	415	1121
Banana	949	702	175	705	1602	1416	269	0	846	228
Pepper	55	156	53	62	48	43	0	0	22	45
Ginger	233	591	913	754	2336	6120	3053	1874	1596	1316
Turmeric	151	483	292	107	102	845	305	0	581	445

While considering the total labour cost of hired human labour, animal labour and machine labour on cultivation of various crops, the share of machine labour is increasing for paddy in all seasons. The remaining crops show a varying trend. The following table gives the percentage of machine labour on this aspect.

Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Paddy-Autumn	17.9	17.7	17.2	19.5	19.6	25.6	24.7	17.3	24.3	17.5
Paddy-Winter	18.6	17.4	18.4	21.6	23.7	22.7	25.8	21.6	23.7	22.7
Paddy-Summer	21.2	20.4	19.7	21.5	24.7	26.2	27.9	16.3	20.8	12.7
Coconut	3.9	4.1	0.9	2.7	1.9	1.7	1.3	0.0	0.7	1.0
Arecanut	7.0	5.9	3.9	3.9	5.1	3.2	0.0	0.0	0.7	1.6
Tapioca	1.9	2.1	3.3	2.0	3.5	4.4	1.2	0.0	1.3	2.8
Banana	3.2	2.2	0.6	1.8	5.3	3.1	0.7	0.0	1.5	0.4
Pepper	0.5	1.4	0.5	0.5	0.4	0.2	0.0	0.0	0.1	0.1
Ginger	1.2	2.8	4.0	2.3	7.1	12.7	7.4	5.1	4.2	3.0
Turmeric	0.8	2.7	2.0	0.6	0.5	3.0	1.1	0.0	1.7	1.1

12.2 Schemes on farm mechanisation and infrastructure support

In order to tackle the labour shortage problem in farming sector and to reduce the cost of cultivation, mechanisation has been adopted by the State and a number of plan schemes were formulated by both State and Central Governments in this regard. Agro Industries Corporation in the State is the main agency for the development and supply of farm machineries for the State need.

For providing soil testing services for the effective use of fertilizer and manure to various crops, soil testing laboratories, fertilizer quality testing laboratories and pesticide testing laboratories are functioning in Kerala and financial assistances have been provided to them through State plan budget. The plan schemes catering the above aspects implemented by the department from 2005-06 to 2014-15 are summarised in this chapter. The financial progress and available physical achievements are also quantified along with this.

1. Modernisation of departmental laboratories

One of the major services offered by the department to farming community is soil testing for fertility analysis and fertilizer testing for quality control analysis of inputs and pesticide testing and seed testing. These are critical components which significantly affect the production and productivity of crops. The outlay provided in this scheme is for modernizing and strengthening of existing laboratories by providing latest equipments and for setting up of new laboratories. This scheme is implemented under the head of account 2401-00-105-86. The financial performance is given below. (Rs. In Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	150.00	82.50	59.06	72
2006-07	100.00	100.00	99.43	99
2007-08	100.00	100.00	98.58	99
2008-09	150.00	150.00	140.43	94
2009-10	150.00	150.00	150.15	100
2010-11	400.00	400.00	375.45	94
2011-12	735.00	535.00	508.85	95
2012-13	440.00	356.00	242.29	68
2013-14	65.00	65.00	60.01	92
2014-15	100.00	84.24	28.59	34

The physical achievements are as follows (Unit in No.)

	Fertilizer sample collected	Pesticide sample collected	Soil sample collected	Organic manure sample collected	Bio fertilizer collected
2006-07	4789	1830	248293	747	310
2007-08	4319	1482	201890	510	142
2008-09	7008	1724	257061	742	37
2009-10	6319	1647	231335	315	42
2010-11	2735	1414	162470	61	101
2011-12	2414	1092	181627	177	48
2012-13	2989	1329	131908	50	25
2013-14	3082	1331	81154	68	57
2014-15	2787	1046	65280	30	19

2. Small farm mechanisation – Macro management (90% CSS)

This 90% central assistance scheme is intended for procurement of farm machineries, propagation of mechanisation in agriculture and to improve the infrastructure facilities in padasekharams, research and development on farm machineries, conduct of training programmes on use of machineries, etc. This is implemented from 2006-07 to 2013-14. This scheme is implemented under the plan head 2401-00-800-61 (12). The financial achievement of this scheme is as follows. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2006-07	49.58	0.00	49.58	446.22	44.35	399.18	89
2007-08	10.00	90.00	16.00	144.00	15.39	138.52	96
2008-09	30.00	270.00	30.00	270.00	28.11	253.03	94
2009-10	10.00	90.00	10.00	90.00	9.92	89.27	99
2010-11	10.00	90.00	25.50	229.50	24.80	223.19	97
2011-12	20.00	180.00	20.00	180.00	19.15	172.34	96
2012-13	20.00	180.00	20.00	180.00	14.95	134.55	75
2013-14	15.00	135.00	15.00	135.00	0.00	0.00	0

The physical achievement is (in number)

	Power tiller	Manually operated tools	PP equipments	Tractor	Self propelled machines	Specialized power driven equipments	Other machines
2006-07	496	2000	836	15	-	-	10584
2007-08	73	2133	4593	4	44	219	343
2008-09	38	1097	3363	9	8	16	79
2009-10	31	289	1861	9	17	203	41
2010-11	131	447	1268	-	82	933	2209
2011-12	106	475	596	8	8	671	1917
2012-13	48	265	338	5	-	455	1687

3. Watershed development (NWDpra)- Macro management (90% CSS)

This is a 90% centrally sponsored macro management scheme for the development of watersheds in the State. The outlay provided is for providing livelihood support activities for landless, capacity building, soil and water conservation activities and demonstration of new technologies. The budget provision was under the head of account 2401-00-800-61 (13) and the financial achievement is given below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	20.00	180.00	70.00	630.00	72.07	648.63	103
2006-07	129.15	1162.35	129.15	1162.35	142.68	1284.14	110
2007-08	100.00	900.00	100.00	900.00	82.95	746.58	83
2008-09	100.00	900.00	100.00	900.00	68.97	620.75	69
2009-10	70.00	630.00	70.00	630.00	37.46	337.18	54
2010-11	70.00	630.00	54.70	492.30	39.82	358.41	73
2011-12	40.00	360.00	40.00	360.00	33.77	304.04	84
2012-13	40.00	360.00	40.00	360.00	45.99	413.92	115
2013-14	60.00	540.00	60.00	540.00	0.49	4.41	1

4. Establishment of bio control labs (100% CSS)

The budget provision for this plan scheme was provided under the head of accounts 2401-00-107-80 and 2401-00-800-38 in 2005-06 to 2008-09, but no expenditure. The budget provision in each head is given below. (Rs. In Lakhs)

2401-00-107-80

Year	Original outlay	Revised outlay	Accounts	%
2005-06	70.00	35.00	0.00	0
2006-07	10.00	0.00	0.00	0

2401-00-800-38

Year	Original outlay	Revised outlay	Accounts	%
2008-09	15.00	10.00	0.00	0

5. Promotion and strengthening of agriculture mechanisation (100% CSS)

This scheme was implemented from 2006-07 to 2012-13 for the purpose of promotion and strengthening of mechanisation in farming sector. The budget provision was through the head 2401-00-113-85. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2006-07	10.00	16.72	16.72	100
2007-08	10.00	6.00	0.00	0
2008-09	10.00	10.00	8.99	90
2009-10	10.00	10.00	0.00	0
2010-11	20.00	10.00	9.89	99
2011-12	20.00	20.00	0.00	0
2012-13	20.00	20.00	20.02	100

6. Establishment of pesticide testing lab (100% CSS)

This is a 100% CSS scheme implemented in 2008-09 only and the fund support is through the budget head 2401-00-800-39. The financial progress is (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2008-09	18.97	11.38	0.00	0

7. Development and strengthening of infrastructure facilities for production and distribution of quality seeds (100% CSS)

This is a 100% CSS scheme implemented from 2009-10 to 2011-12 under the plan head 2401-00-103-80. The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2009-10	0.00	606.00	606.00	100
2010-11	100.00	100.00	0.00	0
2011-12	10.00	10.00	0.00	0

8. Sub mission on agricultural mechanisation (100% CSS)

This is a 100 percent centrally sponsored scheme implemented from 2013-14. The budget provision is through the head 2401-00-113-81. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2013-14	500.00	500.00	56.85	11
2014-15	1000.00	750.00	0.00	0

9. Quality control of fertilizers and pesticides- Additional facilities for existing laboratories

This scheme for providing facilities in quality control labs under agriculture department has been implemented in 2005-06 and 2006-07. The budget provision was under the head 2401-00-105-97 and the financial progress is (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	15.00	15.00	14.80	99
2006-07	15.00	15.00	14.84	99

10. Small Farm mechanisation and agriculture engineering services

The mechanisation of agricultural operations needs reforms towards upland agriculture. A special support is required for the development of machines suited for garden land agriculture, import of equipments suited for the undulating terrain as well as to support R&D on small farm mechanisation. The outlay is for garden land mechanisation. The budget provision was under the plan heads 4401-00-113-99 and 2401-00-113-90. The financial performance of this scheme is as follows. (Rs. in Lakhs)

4401-00-113-99

Year	Original outlay	Revised outlay	Accounts	%
2005-06	5.00	5.00	5.00	100
2006-07	5.00	5.00	5.00	100
2007-08	4.24	4.24	4.23	100

Year	Original outlay	Revised outlay	Accounts	%
2005-06	70.00	70.00	65.76	94
2006-07	20.00	20.00	19.27	96
2008-09	50.00	50.00	42.78	86
2009-10	50.00	50.00	49.93	100
2010-11	200.00	200.00	176.16	88
2011-12	100.00	100.00	98.38	98

11. Establishment of modern laboratories

One of the major services offered by the department of agriculture to farming community is soil testing for fertility analysis and fertilizer testing for quality control analysis. The outlay provided under this scheme is for establishing modern laboratories and the funds are provided under the head of account 4401-00-107-97. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	150.00	150.00	28.49	19
2006-07	100.00	100.00	22.60	23
2007-08	100.00	95.76	86.08	90
2008-09	50.00	50.00	42.21	84
2009-10	50.00	50.00	48.94	98
2010-11	100.00	100.00	20.24	20
2011-12	60.00	60.00	42.88	71
2012-13	60.00	60.00	52.65	88
2013-14	435.00	326.25	251.43	77
2014-15	375.00	337.50	214.17	63

12. Rural Infrastructure Development Fund Projects (RIDF)

This NABARD assisted scheme was implemented from 2006-07 to 2011-12 under the plan head 4401-00-104-96 for the development of farms under the department. The financial performance is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2006-07	1500.00	900.00	0.00	0
2007-08	1000.00	750.00	0.00	0
2008-09	500.00	500.00	0.00	0
2009-10	500.00	250.00	100.00	40
2010-11	100.00	100.00	0.00	0
2011-12	100.00	100.00	41.00	41

13. Establishment of Agriculture Export Zone

This scheme is implemented in 2005-06 and 2006-07 under the head of account 2401-00-800-52. The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	475.00	237.50	4.20	2
2006-07	175.00	15.00	15.00	100

14. Loans to Agro Industries Corporation (KAIC)

This scheme for providing loan support to KAIC was implemented in 2005-06 and 2006-07. The budget provision was through the plan heads 6401-00-800-82 and 6401-00-190-96. The financial progress of each head is given below. (Rs. in Lakhs)

6401-00-800-82

Year	Original outlay	Revised outlay	Accounts	%
2005-06	0.00	150.00	239.99	160
2006-07	0.00	80.00	80.00	100

6401-00-190-96

Year	Original outlay	Revised outlay	Accounts	%
2009-10	0.00	215.00	215.00	100

15. RIDF projects

This NABARD assisted RIDF project has been implementing from 2006-07 under the plan head of account 4435-01-101-97 for the development of market infrastructure. The financial performance over the years is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2006-07	500.00	500.00	0.00	0
2007-08	2600.00	500.00	0.00	0
2008-09	500.00	250.00	0.00	0
2009-10	500.00	500.00	34.58	7
2010-11	500.00	500.00	0.00	0
2011-12	500.00	500.00	36.99	7
2012-13	500.00	500.00	500.24	100
2013-14	500.00	500.00	492.59	99
2014-15	0.00	415.60	415.25	100

16. Innovative agricultural mechanisation (One time ACA)- Assistance for Agriculture department

This is a one time ACA support scheme implemented in 2008-09 in Kerala under the plan head 2401-00-113-84. The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2008-09	100.00	100.00	100.00	100

Chapter 13

AGRICULTURAL EXTENSION AND COMMUNICATION

Agricultural extension is one of the driving forces that are responsible for growth of agricultural productivity by transferring latest scientific based improved agricultural technologies to the farmers and ultimately strengthen the State economy. However, for agricultural development of a country, technology development through research and technology transfer through extension is unavoidable. The technology transfer, however, does not take place in a vacuum but it is done through a well organized extension system. The latter is a continuous process of passing on useful and required information to the farmers and then assisting them to utilize effectively new knowledge and skills for increasing their production and income. Keeping in view the importance of agriculture extension and communication for the technology transfer to the farmers, government is implementing a number of State and Central plan schemes every year. The following are the schemes under this category implemented through the department of Agriculture from 2005-06 to 2014-15.

1. Macro management schemes (90%CSS)- Agricultural extension and training

This is a 90% centrally sponsored plan scheme implemented in 2005-06 only during the reference period. The budget outlay was provided under the head of account 2401-00-800-61 (07). The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	8.00	72.00	8.00	72.00	0.18	1.62	2

2. Macro management schemes (90%CSS)- Information technology

This 90% CSS macro management scheme is implemented in the State from 2005-06 to 2007-08 by providing fund under the head 2401-00-800-61 (14) and Govt of India have withdrawn it in 2007-08. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	40.00	360.00	40.00	360.00	10.35	93.15	26
2006-07	0.00	0.00	5.42	48.78	5.42	48.78	100
2007-08	1.20	10.80	1.20	10.80	3.68	33.08	306

3. Agrisnet (100% CSS)

Agrisnet is a 100% centrally funded scheme implemented in 2006-07 only and the budget provision is under the plan head 2401-00-109-82. The financial progress is as follows (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2006-07	1000.00	1000.00	20.55	2

4. Other 90% CSS- Support to State extension programme for extension reforms

This scheme is also indented for extension activities and the funding pattern is 90:10 (Central: State). The budget outlay was under the head 2401-00-800-35 (01). This scheme was implemented in 3 years from 2009-10. Though this is a CSS only State provision was in the budget. The financial progress is shown below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2009-10	50.00	0.00	50.00	0.00	50.00	0.00	100
2010-11	50.00	0.00	50.00	0.00	50.00	0.00	100
2011-12	150.00	0.00	150.00	0.00	111.17	0.00	74

5. Agricultural extension and communication- SAMETI

This is a State plan scheme for providing financial support to SAMETI for agricultural extension and training services in the State. The fund set apart is for purchase of equipments, honorarium for experts and setting up of high level training facilities. The fund was provided in the plan head 2401-00-800-42 and is implemented in 4 years from 2008-09. The financial performance is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2008-09	100.00	100.00	100.10	100
2009-10	60.00	160.00	160.00	100
2010-11	60.00	60.00	60.00	100
2011-12	100.00	100.00	100.00	100

6. Agricultural extension and communication- Kisan project

Kisan project is a State scheme implemented in Kerala from 2009-10 to 2011-12 with the collaboration of IITMK. The television based programmes and development of a portal are the major components of the programme. The plan fund is provided under the head of account 2401-00-800-36. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2009-10	25.00	25.00	25.00	100
2010-11	35.00	35.00	35.00	100
2011-12	40.00	40.00	40.00	100

7. Agricultural extension and communication- Kerala Agriculture University

This is State sector plan scheme implemented by the department through Kerala Agriculture University for supporting the extension initiatives of the department of agriculture. The budget head of this scheme is 2401-00-109-78 and is implemented from 2010-11 to 2013-14. The financial progress is as follows (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2010-11	50.00	50.00	50.00	100
2011-12	50.00	50.00	0.00	0
2012-13	75.00	75.00	0.00	0
2013-14	100.00	50.00	16.93	34

8. Agricultural extension and communication- ATMA call centres (one time ACA)

This is a one time Additional Central Assistance plan scheme implemented in 2014-15 FY for providing extension and communication services to farmers by establishing ATMA call centre based advisory services. The components include a centralized call centre jointly at directorate managed by an agency selected for the purpose, and 14 district centres linked to block level information centres. The budget head is 2401-00-109-73 and the financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2014-15	500.00	500.00	500.00	100

9. Agricultural extension and communication- Agro service centres

Lack of skilled and unskilled agricultural labourers and high wages are the major threats faced by farmers in taking up cultivation. Moreover availability of labourer at the peak period of cultivation is another factor. This leads to high cost of cultivation and minimise return from agriculture which tempt farmer to move away from the agriculture profession. An alternative to this problem is mechanisation and making available the required machineries along with other services for cultural operations at the right time. ASC has been established in selected Blocks to facilitate integration of services like mechanisation, soil testing support and other technology based services. This State plan scheme is implemented from 2006-07 to 2011-12 under the plan head 2401-00-113-86. The outlay and expenditure of this scheme is given below (Rs. in Lakhs).

Year	Original outlay	Revised outlay	Accounts	%
2006-07	100.00	100.00	0.00	0
2007-08	20.00	20.00	20.00	100
2008-09	20.00	20.00	19.87	99
2009-10	20.00	20.00	19.89	99
2010-11	25.00	25.00	21.98	88
2011-12	15.00	15.00	12.02	80

10. Agro service centres and service delivery

The Block level set up and Panchayat level Krishi Bhavans were established in the State in 1987 with core minimum technical man power and practically no administrative staff support. This plan scheme is implemented from 2013-14 for the purpose of setting up of Agro Service Centres in selected Blocks in the State to facilitate integration of services like mechanisation, ATMA based extension, credit support, weather advisory services, soil testing support and other technology based services by providing labour force support and machinery support to farming activities in the operational area. The head of account associated with this scheme are 4401-00-113-98 and 2401-00-113-83. The financial progress is (Rs. in Lakhs)

4401-00-113-98

Year	Original outlay	Revised outlay	Accounts	%
2013-14	805.00	805.00	729.19	91
2014-15	980.00	564.40	520.78	92

2401-00-113-83

Year	Original outlay	Revised outlay	Accounts	%
2012-13	2000.00	1400.00	965.69	69
2013-14	295.00	295.00	259.53	88
2014-15	1770.00	1327.50	924.55	70

11. Farm information and communication

This scheme aims at the development of information and dissemination through the use of mass and electronic media including web based services. This plan scheme is implemented in all years and the fund provided is for the activities such as conduct of seminars, publication of brochures, programmes through AIR etc conducted by the Farm Information Bureau in the State. The budget outlay was under the heads of account 4401-00-109-99 and 2401-00-109-84. The financial progress of each head is as follows. (Rs. in Lakhs)

4401-00-109-99

Year	Original outlay	Revised outlay	Accounts	%
2007-08	10.00	10.00	9.98	100
2010-11	25.00	25.00	6.50	26
2011-12	25.00	25.00	0.00	0
2012-13	25.00	25.00	25.00	100
2013-14	25.00	25.00	25.00	100
2014-15	25.00	25.00	0.00	0

2401-00-109-84

Year	Original outlay	Revised outlay	Accounts	%
2005-06	100.00	100.00	98.73	99
2006-07	100.00	100.00	99.29	99
2007-08	105.00	105.00	105.02	100
2008-09	115.00	115.00	115.03	100
2009-10	120.00	120.00	118.87	99
2010-11	165.00	165.00	164.28	100
2011-12	225.00	225.00	222.53	99
2012-13	325.00	325.00	323.33	99
2013-14	350.00	350.00	347.60	99
2014-15	375.00	375.00	375.00	100

12. Application of Information Technology

This State plan scheme is implemented in 4 years from 2008-09 for providing IT enabled support for agriculture extension activities. The head of account is 2401-00-800-41 and the financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2008-09	15.00	15.00	12.10	81
2009-10	15.00	15.00	14.17	94
2010-11	25.00	25.00	24.87	99
2011-12	200.00	200.00	147.76	74

13. Strengthening agricultural extension and communication

Farmers are the end users of all agricultural technology. The success of all agricultural development strategies depends on the adoption of scientific technology by farmers. In order to improve the income of the farmers, a field visit oriented extension system is essential in the State. The extension will address the farming systems in all dimensions including marketing, soil testing, agro meteorology and water management advisory services. This scheme is implemented under the head of account 2401-00-109-80, from the year 2007-08 onwards. The financial achievement is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	115.00	115.00	112.43	98
2008-09	155.00	155.00	149.20	96
2009-10	195.00	152.95	136.12	89
2010-11	442.00	355.12	225.05	63
2011-12	705.00	705.00	704.87	100
2012-13	1725.00	1553.45	1244.23	80
2013-14	2400.00	2400.00	1960.96	82
2014-15	3500.00	2627.75	2150.32	82

The physical achievement of this scheme is given below (in number)

Year	District level seminar, interface	Orientation activities, farmers day etc.
2007-08	25	528
2008-09	50	1008
2009-10	48	1076
2010-11	29	1076
2011-12	18	993
2012-13	21	1073
2013-14	22	968
2014-15	46	1075

ATMA Plus

ATMA Plus is implemented from 2014-15 year only under the head of account 2401-00-109-80 as a component of the scheme Strengthening Agricultural Extension for providing additional support of the central scheme ATMA (50% centrally sponsored) by including the State's own component.

Physical achievement of ATMA plus during the year 2014-15 is

Demonstration	867
Farms school	290
Farm field school	120
Integrated farming system	76
Post surveillance groups	174

LEADS

LEADS is a pilot project on field visit based extension system, centered around LEAD farmer and satellite farmer, implemented under the head of account 2401-00-109-80 as another component of the scheme Strengthening Agricultural Extension. The concept is based on scientific delineation of the districts into Agro Ecological Zone and Agro Ecological Units. KAU, IITMK, SAMETI and Krishi Vijnan Kendras are associated with this programme on integration with the ATMA framework. Paddy, coconut, banana and vegetables are the crops covered under this project.

14. Support of state extension programme for extension reforms – Macro management scheme (90% CSS)

This 90% centrally sponsored scheme is implemented in 2006-07 to 2008-09 only and the budget provision was under the head of account 2401-00-800-61 (22). The financial achievement is as follows. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2006-07	20.00	180.00	20.00	180.00	0.46	4.11	2
2007-08	10.00	90.00	10.00	90.00	6.25	56.28	63
2008-09	50.00	450.00	30.00	270.00	11.84	106.60	39

Chapter 14

MARKETING AND STORAGE

Marketing and storage is another major activity for the continuous and increased production of agricultural commodities. This helps to procure the produces from farmers and to supply to the consumers at the right time at right price. This chain activity helps the farmers to get maximum price for his produces and also to prevent the farming community to migrate in to other non agricultural sector activities.

14.1 Market wholesale price

The yearly average of the monthly averages of market wholesale price of important agricultural commodities collected from different centres in the districts in Kerala during 2005-06 and 2013-14, and their price growth during the period are given in the following table. (in Rs.)

SI No	Name of Commodity	Unit	2005-06	2013-14	% increase
1	Coconut without husk	1000 No.	4918	9385	91
2	Arecanut Ripe	1000 No.	558	1367	145
3	Tapioca Raw	Qtl	482	1977	310
4	Tapioca Dry	Qtl	1346	4186	211
5	Ginger	Qtl	1640	8064	392
6	Ginger Dry	Qtl	7555	13985	85
7	Banana	Qtl	1358	4473	229
8	Turmeric	Qtl	4184	7150	71
9	Pineapple	Qtl	899	3150	251
10	Betal leaves	100 No.	11	23	109
11	Sesamum	Qtl	2772	10141	266
12	Rubber	Qtl	7134	16263	128

14.2 Farm retail price

The yearly average of the monthly averages of farm retail prices of different agricultural commodities collected from different selected centres in the districts in Kerala during the agricultural year 2005-06 and 2013-14 are given below. (in Rs.)

SI No	Name of Commodity	Unit	2005-06	2013-14	% variation
1	Paddy	Kg	6.34	18.56	193
2	Coconut	1 No	5.42	11.63	115
3	Arecanut	1 No	0.53	1.07	102
4	Pepper (dry)	Kg	64.75	466.19	620
5	Tapioca	Kg	5.02	18.27	264
6	Ginger Dry	Kg	89.74	80.58	-10
7	Banana Ripe	Kg	14.13	33.67	138
8	Mango Green	Kg	12.30	24.33	98
9	Pineapple	1 No	6.54	19.25	194
10	Tamarind	Kg	28.09	90.57	222
11	Turmaric	Kg	39.35	64.26	63
12	Brinjal	Kg	8.38	14.64	75
13	Cucumber	Kg	5.64	11.00	95
14	Ladies finger	Kg	8.42	22.27	164
15	Pampkim	Kg	5.03	10.55	110
16	Betal leaves	10 No	2.65	5.39	103
17	Elephant foot yam	Kg	7.05	17.90	154

14.3 Farm wholesale price

The yearly average of the averages of the fortnightly prices on wholesale rates of agricultural commodities collected from selected centers in the districts in Kerala during the agricultural year 2005-06 and 2013-14 and their percentage growth during the period is given below. (in Rs.)

SI No	Item	Unit	2005-06	2013-14	% growth
1	Paddy	Qtl	612	1613	164
2	Pepper(D)	Qtl	5980	49634	730
3	Ginger(D)	Qtl	6613	14005	112
4	Ginger	Qtl	1271	8056	534
5	Turmeric(D)	Qtl	3587	6918	93
6	Banana	Qtl	1248	3459	177
7	Plantain	Qtl	644	2742	326
8	Cashew	Qtl	2899	6426	122
9	Tapioca	Qtl	433	1717	297
10	Coconut (WH)	100	495	1113	125
11	Arecanut	100	44	99	125

14.4 Farm harvest price of paddy in Kerala and major states in India

The following table shows the farm harvest price of paddy in Kerala and other major rice producing States in the country during the period from 2005-06 to 2010-11. (in Rs. per quintal)

State	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Kerala	599	689	798	947	1064	1200
Tamil Nadu	494	503	698	868	926	991
AP	517	650	670	977	1139	990
Karnataka	546	603	678	859	962	1058
Maharashtra	-	-	-	867	1012	1153
MP	531	-	787	903	1196	1165
Gujarat	669	751	816	901	1065	1074
Punjab	913	966	720	1336	1457	1092
West Bengal	546	608	695	731	882	1043
UP	580	635	580	818	941	888

Source: Ministry of Agriculture & Farmers Welfare, Govt of India (<http://agricoop.nic.in>)

14.5 Schemes on marketing and storage

The plan schemes implemented from 2005-06 to 2014-15 for the purpose of providing marketing, storage and warehousing facilities for the agricultural commodities produced in the State are explained below. The schemes wise financial and available physical achievements are also provided along with.

1. Grading and quality control of agricultural commodities

This scheme is implemented from the year 2005-06 to 2011-12. The budget provision is under the head of account 2435-01-102-99. The main objective of this scheme is to grade and certify the agriculture produces by conducting quality control tests. For this purpose 10 Agmark testing and grading laboratories are working in the State. Agmark certificates for the graded commodities such as coconut oil, gingely oil, honey, spice powders, rice, wheat powder and ghee are being issued from the Directorate of Marketing and Inspection, Govt of India. The financial performance during the period is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	10.00	5.00	4.60	92
2006-07	10.00	10.00	9.55	96
2007-08	10.00	10.00	5.29	53
2008-09	10.00	10.00	8.00	80
2009-10	10.00	10.00	8.45	85
2010-11	10.00	10.00	5.36	54
2011-12	10.00	10.00	6.94	69

The physical achievement in grading of commodities is as follows. (Quantity in Quintals)

Item	Coconut oil	Sesame oil	Honey	Spices	Ghee	Asafoetida
2005-06	5826	196	1142	2570	192	-
2006-07	5475	139	673	1815	152	18
2007-08	5735	90	1479	3199	148	93
2008-09	12452	11	1365	2952	164	116
2009-10	15207	15	113	6892	109	139
2010-11	17898	173	1303	5452	104	121
2011-12	18713	41	1368	160	252	9346

2. Market Intervention support for Price stabilization

This scheme is implemented from 2005-06 to 2011-12 under the heads of account 2435-01-101-85 and 6401-00-800-73. The main objective of this scheme is to assist the farmers by ensuring the price stability of agricultural commodities during the harvest season. The programmes conducted under this scheme are conduct of fare markets, giving assistance for procurement of produces from farmers, assistance for arranging market facilities etc. The financial achievement is as follows. (Rs. in Lakhs)

2435-01-101-85

Year	Original outlay	Revised outlay	Accounts	%
2005-06	440.00	592.68	595.88	101
2006-07	340.00	1109.46	1069.41	96
2007-08	1555.00	1321.75	178.97	14
2008-09	350.00	300.00	207.06	69
2009-10	350.00	315.00	282.86	90
2010-11	505.00	505.00	494.98	98
2011-12	350.00	906.85	901.47	99

Year	Original outlay	Revised outlay	Accounts	%
2006-07	17.00	17.00	0.00	0

3. Agricultural Marketing and quality control- Macro management (90% CSS)

This 90% centrally sponsored macro management scheme was implemented in 2005-06 only and the budget provision was in the head of account 2401-00-800-61 (15). The financial achievement is given below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	33.00	297.00	33.00	297.00	7.15	64.35	22

The physical achievement of this scheme is as follows. (Unit in Numbers)

1	Market survey	1
2	Training to officers	21
3	Training to farmers	20
4	Seminars	3
5	Development of market infrastructure	4
6	Value addition and agro processing	16

4. Strengthening market development

Appropriate and effective linkages by the producers and sellers continue to be weak in the State. Market infrastructure, lack of sufficient market intelligence and institutional support are to be improved. The outlay provided under this plan scheme is for setting up of a network of markets and associated infrastructure like go downs, cold storage facilities including processing infrastructure. This scheme is implemented from 2007-08 to 2014-15 under the heads of account 2435-01-800-99 and 2435-01-101-85. The head of account wise outlay and achievement is as follows. (Rs. in Lakhs)

2435-01-800-99

Year	Original outlay	Revised outlay	Accounts	%
2007-08	850.00	637.50	18.81	3
2008-09	510.00	300.00	8.00	3
2009-10	25.00	25.00	25.00	100
2010-11	175.00	175.00	136.15	78
2011-12	310.00	310.00	269.97	87
2012-13	2500.00	2250.00	1859.55	83
2013-14	1385.00	1385.00	1198.19	87
2014-15	1355.00	1219.50	1033.22	85

2435-01-101-85

Year	Original outlay	Revised outlay	Accounts	%
2012-13	500.00	4517.00	4506.62	100
2013-14	500.00	3028.78	3071.51	101
2014-15	1000.00	2100.00	2094.25	100

5. VFPCCK for expansion of farmers market

This plan scheme is implemented from 2007-08 to 2011-12 for promotion of marketing of vegetables and fruits through VFPCCK. The budget provision was under the head 2435-01-800-98. The outlay and expenditure is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	100.00	100.00	100.00	100
2008-09	100.00	100.00	100.00	100
2009-10	100.00	100.00	100.00	100
2010-11	300.00	300.00	300.00	100
2011-12	450.00	450.00	450.00	100

6. Establishment of storage and warehousing facilities through Agro Industries Corporation

This plan scheme for establishing storage and warehousing facilities like godowns, farmers markets for fruits and vegetables through Kerala Agro Industries Corporation was implemented from 2007-08 to 2011-12 and the budget provision was under the plan head 2435-01-800-97. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	25.00	25.00	25.00	100
2008-09	25.00	25.00	25.00	100
2009-10	25.00	25.00	25.00	100
2010-11	25.00	25.00	25.00	100
2011-12	25.00	25.00	25.00	100

7. Assistance to Kerala State Warehousing Corporation for creating storage and warehousing facilities

This plan scheme was implemented in 2007-08 for creation of warehousing facilities in KSWC. The budget head is 2435-01-800-96 and the financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	25.00	25.00	25.00	100

8. World Trade Organisation (WTO) Cell (Sustainable agricultural trade security system)

A WTO cell has been constituted in the State to prepare background papers related to WTO and regional trade agreements and to advice the State governments on these aspects. The outlay provided is for organising workshops, seminars and awareness programmes on WTO related aspect and for taking up of studies on trade related issues. This scheme was implemented from 2005-06 to 2011-12. The budget provision of this plan scheme is through the head of account 2401-00-800-48 and the financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	20.00	20.00	2.38	12
2006-07	15.00	15.00	0.50	3
2007-08	10.00	8.50	3.33	39
2008-09	10.00	10.00	5.97	60
2009-10	10.00	10.00	4.91	49
2010-11	5.00	5.00	2.45	49
2011-12	5.00	5.00	4.27	85

9. Price stabilization fund

Budget provision for this State plan scheme under the head 2415-01-101-94 was provided in 2005-06, but no financial achievement. The details are as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	15.00	15.00	0.00	0

10. Commodity safety net scheme

This plan scheme was implemented in 2009-10 and the budget provision was under the head 2401-00-800-34. The financial performance is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2009-10	1000.00	1000.00	1019.33	102

11. Kerala State Warehousing Corporation- share capital contribution

This scheme for providing share capital contribution to KSWC has been implementing in the State from 2005-06 onwards. The budget support is through the plan head 4408-02-190-99. The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	75.00	50.00	0.00	0
2006-07	50.00	50.00	0.00	0
2007-08	25.00	25.00	25.00	100
2008-09	50.00	50.00	50.00	100
2009-10	50.00	50.00	50.00	100
2010-11	50.00	50.00	0.00	0
2011-12	50.00	50.00	50.00	100
2012-13	50.00	50.00	50.00	100
2013-14	50.00	50.00	0.00	0
2014-15	50.00	50.00	0.00	0

12. Integrated Agriculture Complex (One time ACA)

This one time ACA scheme has been implementing from 2013-14 for establishing an integrated agricultural complex and the budget provision is through the head 2401-00-109-75. The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2013-14	1000.00	500.00	0.00	0
2014-15	0.00	200.01	200.00	100

13. Agri Malls (one time ACA)

The financial support for this plan scheme is through the plan head 4435-00-101-94. Budget provision was provided in 2014-15, but no financial achievement. The details are given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2014-15	500.00	375.00	0.00	0

14. Pilot Project for Keramrutham and Kerachakkara (KAU Neera Production)

This plan scheme for the production of 'neera' from coconut has been implementing from 2013-14. The budget provision is through the plan head 2401-00-108-30. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2013-14	0.00	45.00	45.00	100
2014-15	0.00	50.00	50.00	100

15. Investment in Nadukkara Agro processing (Nadukkara Agro Industries Corporation Ltd)

This State plan scheme is implemented in 2005-06 and the budget provision was through the plan head 4401-00-190-95. The financial performance is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	7.00	7.00	7.00	100

Chapter 15

OTHER PLAN PROGRAMMES

The plan schemes implemented by the Department of Agriculture during the period from 2005-06 to 2014-15 but not mentioned in the previous chapters of this report are covered here. They are crop development schemes of crops other than paddy, coconut, vegetables, fruits, spices and plantation crops, plant protection oriented programmes, fertilizer management programmes, bio gas development, irrigation, Wayanad and Kuttanad packages etc. The financial progress based on budget documents and department records and available physical progress are also summarised along with.

1. Integrated pest management

IPM will be effective only under the umbrella of a full fledged system. The main objective of this scheme is the establishment of a pest surveillance system in a phased manner for the effective management and control of pest affected diseases in agricultural crops. Establishment of light traps including solar traps, rodent control, mobile agro clinics, IPM training etc are the main components of this scheme. This scheme is implemented under the head of account 2401-00-107-83. This programme is implemented up to the year 2012-13. The financial performance is as follows. (Rs.in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	46.00	46.00	37.91	82
2006-07	50.00	50.00	45.28	91
2007-08	50.00	50.00	47.25	94
2008-09	50.00	50.00	47.72	95
2009-10	50.00	50.00	39.23	78
2010-11	50.00	50.00	47.14	94
2011-12	50.00	50.00	48.15	96
2012-13	100.00	90.50	57.42	63

The physical achievement of this programme is as follows.

Year	Establishment of light traps (No.)	Mobile agro clinics (No.)	Rodent control (No.)	IPM training (No.)	Solar light traps (No.)
2005-06	80	5	-	-	-
2006-07	79	12	14	-	-
2007-08	80	14	14	50	50
2008-09	80	14	14	-	50
2009-10	80	12	14	35	-
2010-11	80	12	24	14	-
2011-12	79	11	30	14	-
2012-13	78	1	60	28	-

2. Production and distribution of quality planting materials- Agricultural farms

The main objective of this scheme is the production and distribution of quality seeds, seedlings and other planting materials of paddy, coconut, vegetables, pulses, tubers, spices, fruits, garden plants and medicinal plants for augmenting the production of agricultural commodities in the State. For this purpose, 33 seed production centres, 10 district farms, 10 special farms and 8 coconut seedlings production centres, and thus altogether 61 agricultural farms are working in Kerala. This scheme is implemented under the head of account 2401-00-104-91 and 4401-00-104-98. The financial progress is as follows. (Rs. in Lakhs)

2401-00-104-91

Year	Original outlay	Revised outlay	Accounts	%
2005-06	160.00	160.00	158.44	99
2006-07	120.00	120.00	119.42	100
2007-08	110.00	110.00	109.96	100
2008-09	110.00	110.00	109.97	100
2009-10	0.00	110.00	108.55	99
2010-11	175.00	175.00	169.70	97
2011-12	200.00	200.00	196.34	98
2012-13	660.00	660.00	608.57	92
2013-14	620.00	620.00	515.39	83
2014-15	1075.00	810.00	770.05	95

4401-00-104-98

Year	Original outlay	Revised outlay	Accounts	%
2005-06	40.00	40.00	39.23	98
2006-07	30.00	30.00	27.36	91
2007-08	15.00	15.00	14.94	100
2008-09	15.00	15.00	14.53	97
2009-10	15.00	15.00	14.75	98
2010-11	25.00	25.00	21.98	88
2011-12	25.00	25.00	25.00	100
2012-13	40.00	38.00	14.25	38
2013-14	230.00	230.00	231.13	100
2014-15	375.00	337.50	291.23	86

3. Seed Authority- Production and distribution of quality planting materials

This scheme is implemented in 5 consecutive years from 2007-08. The head of account is 2401-00-103-83. The financial achievement is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	75.00	75.00	75.00	100
2008-09	50.00	50.00	50.00	100
2009-10	50.00	50.00	50.00	100
2010-11	50.00	50.00	50.00	100
2011-12	25.00	25.00	25.02	100

4. Kerala Agricultural University for planting material programme

This scheme is implemented in four years from 2007-08 to 2011-12, except 2009-10. The budget outlay was provided under heads of account 2401-00-103-79 (2010-11 and 2011-12) and 2415-01-277-91 (2007-08 and 2008-09). The financial performance is as follows. (Rs. in Lakhs)

2401-00-103-79

Year	Original outlay	Revised outlay	Accounts	%
2010-11	50.00	50.00	50.00	100
2011-12	50.00	50.00	50.00	100

2415-01-277-91

Year	Original outlay	Revised outlay	Accounts	%
2007-08	75.00	75.00	75.00	100
2008-09	50.00	50.00	50.00	100

5. National project on biogas development (100% CSS)

This is a 100% centrally sponsored scheme implemented under the budget head 2810-00-105-99 and 2810-01-101-99. It is started in 1983-84 under the guidelines of Ministry of Non-conventional and Renewable Energy, Govt of India. The main objectives of this scheme are to solve the deficiency of cooking fuel, control of environmental pollutions, reduce the health issues due to the use of firewood for cooking, to reduce the deforestation for firewood, to increase the use of bio manure obtained as a byproduct from bio gas plants for agricultural production etc. The amount earmarked in the budget is used for giving subsidy for construction of bio gas plants in rural areas and for conducting training programmes. The financial achievement is as follows. (Rs. in Lakhs)

2810-00-105-99

Year	Original outlay	Revised outlay	Accounts	%
2010-11	120.00	120.00	125.39	104
2011-12	250.00	363.00	365.55	101
2012-13	300.00	300.00	250.04	83
2013-14	350.00	350.00	206.18	59
2014-15	350.00	350.00	213.01	61

2810-01-101-99

Year	Original outlay	Revised outlay	Accounts	%
2005-06	100.00	100.00	80.19	80
2006-07	100.00	100.00	105.75	106
2007-08	100.00	100.00	117.17	117
2008-09	100.00	100.00	106.03	106
2009-10	120.00	120.00	130.75	109
2010-11	120.00	0.00	0.00	0

The physical achievement during the period is

Year	No. of biogas plants constructed	No. of training programmes conducted
2005-06	1943	-
2006-07	3712	-
2007-08	2414	-
2008-09	2303	49
2009-10	2579	51
2010-11	2591	52
2011-12	2183	51
2012-13	1990	50
2013-14	1307	40
2014-15	1584	50

6. Control of root bud disease in Kozhikkode district (50% CSS)

This 50% centrally sponsored scheme is implemented in the State in 2005-06 only. The budget provision was in the head of account 2401-00-108-43. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	1.70	1.70	1.70	1.70	1.70	1.70	100

7. Integrated scheme of oil seeds, pulses and maize (ISOPOM) (75% CSS)

This 75 % centrally sponsored scheme is implemented from the year 2005-06 to 2011-12 under the head of account 2401-00-112-97. The financial achievement is given below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	15.00	45.00	15.00	45.00	5.00	15.00	33
2006-07	15.00	45.00	15.00	45.00	10.49	31.48	70
2007-08	15.00	45.00	9.00	27.00	0.00	0.00	0
2008-09	2.50	7.50	2.50	7.50	0.00	0.00	0
2009-10	2.50	7.50	20.00	60.00	20.00	60.00	100
2010-11	2.50	7.50	11.74	35.22	11.74	35.22	100
2011-12	2.50	7.50	2.50	7.50	2.50	7.50	100

8. Seed replacement scheme under special package programme (100% CSS)

This is a 100% centrally sponsored scheme implemented in 2007-08 year only and the budget provision was under the head of account 2401-00-103-81. The financial performance is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	192.00	192.00	191.91	100

The physical achievement of this scheme was the supply of 2651 tonnes of seeds.

9. Integrated cereal development programme in coarse cereal based cropping system- Macro management (90% CSS)

This 90% central assistance macro management scheme is implemented in 2006-07 only, and the budget provision was in the head of account 2401-00-800-61 (24). The financial achievement is given below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2006-07	20.15	181.35	20.15	181.35	4.52	40.70	22

10. Balanced and integrated use fertilizers- Macro management (90% CSS)

This is a 90% centrally sponsored macro management scheme implemented from 2006-07 to 2008-09 and the budget provision was under the head of account 2401-00-800-61 (23). The financial achievement is as follows. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2006-07	28.00	252.00	28.00	252.00	35.83	322.43	128
2007-08	8.80	79.20	8.80	79.20	3.07	27.61	35
2008-09	20.00	180.00	15.00	135.00	9.14	82.29	61

The physical achievement is

Item	2006-07	2007-08
Distribution of green manure seeds (MT)	1267	266
Vermin compost units (No.)	3923	1408
Soil testing campaign (No.)	896	651

11. Establishment of regional nurseries (50% CSS)

This is a 50% central support scheme implemented from 2006-07, the budget head is 2401-00-108-42. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2006-07	37.50	37.50	37.50	37.50	31.11	31.11	83
2007-08	37.50	37.50	37.50	37.50	25.64	25.65	68
2008-09	37.50	37.50	37.50	37.50	31.19	31.18	83
2009-10	12.50	12.50	44.55	44.55	37.12	37.12	83
2010-11	12.50	12.50	35.00	35.00	34.15	34.15	98
2011-12	12.50	12.50	30.00	30.00	29.56	29.54	99
2013-14	15.00	15.00	15.00	15.00	15.00	15.00	100
2014-15	15.00	15.00	15.00	15.00	14.99	14.99	100

12. Macro management schemes (90%CSS)- Concurrent monitoring and evaluation

This Govt of India supported macro management scheme is for monitoring and evaluation of various activities implemented in 2005-06. The head of account of this programme is 2401-00-800-61 (19) and the financial progress is given below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2005-06	1.50	13.50	1.50	13.50	0.00	0.00	0

13. Micro irrigation (90% CSS)

Micro irrigation is a 90% CSS programme implemented from 2006-07 to 2009-10 under the plan head 2401-00-800-45. The objective of this scheme is to minimize the conveyance losses of water such as deep percolation, run off and soil erosion. The outlay provided is for micro irrigation, drip and sprinkle irrigation with pump sets. The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2006-07	50.00	450.00	80.00	720.00	35.73	31.63	8
2007-08	20.00	180.00	26.00	234.00	25.17	226.54	97
2008-09	20.00	180.00	20.00	180.00	1.16	10.39	6
2009-10	0.00	0.00	1.00	0.00	0.00	0.00	0

14. Women in agriculture (100% CSS)

This is a 100% CSS plan scheme implemented in 2005-06 for enhancing the participation of women in agriculture activities. The budget provision was under the plan head 2401-00-800-73. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	15.00	15.00	4.97	33

15. Other 90% CSS- Micro irrigation

This is a 90% CSS scheme implemented from 2009-10 under the plan head 2401-00-800-35 (02). Even though this is a partially centrally sponsored programme, no central provision was in the State budget. The year wise financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2009-10	1.00	0.00	1.00	0.00	1.00	0.00	100
2010-11	1.00	0.00	1.00	0.00	1.00	0.00	100
2011-12	1.00	0.00	40.20	0.00	39.43	0.00	98
2012-13	110.00	0.00	110.00	0.00	99.02	0.00	90
2013-14	100.00	0.00	100.00	0.00	33.06	0.00	33
2014-15	0.00	0.00	100.00	0.00	97.50	0.00	98

16. NeGP- Agriculture (by SDG) (90% CSS)

This 90% centrally sponsored scheme is implemented in 2013-14 only and the budget outlay was under the plan head 2401-00-800-22. The financial performance is given below. (Rs. in Lakhs)

Year	Original outlay		Revised outlay		Accounts		%
	State	Central	State	Central	State	Central	
2013-14	27.74	249.68	27.74	249.68	27.71	249.38	100

17. Seed infrastructure (100% CSS)

This is a 100% centrally sponsored programme of Govt of India implemented in 3 consecutive years from 2006-07 under the plan head 2401-00-103-85. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2006-07	100.00	100.00	0.00	0
2007-08	50.00	30.00	0.00	0
2008-09	0.00	10.62	10.62	100

18. National project on organic farming (100% CSS)

This is another 100% CSS scheme implemented from 2006-07 up to 2011-12 in the State for the promotion of organic cultivation. The demand for organic farming is increasing in the world and the State is having potential to utilize these emerging opportunities for the development and export of such food. Organic farming not only increases the income of farmers as the organic produces get a premium price but also help in improving towards sustainable agriculture and aims at production of quality and safe agricultural produces which contain no chemical residues following ecofriendly production methods. The plan head of account of this scheme is 2401-00-105-84 and the financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2006-07	200.00	200.00	62.51	31
2007-08	10.00	10.00	0.00	0
2008-09	10.00	10.00	10.00	100
2009-10	10.00	10.00	10.00	100
2010-11	50.00	50.00	30.72	61
2011-12	50.00	50.00	0.00	0

19. Human Resources Development in Horticulture (100% CSS)

This is another 100% CSS implemented in the State in 2005-06 and 2007-08. The budget provision was under the head of account 2401-00-800-53. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	2.00	2.00	0.00	0
2007-08	1.00	1.00	1.00	100

20. Post harvest technology and management (100% CSS)

This central sector scheme is implemented in 2011-12 and 2012-13 under the head of account 2401-00-109-77. The financial performance is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2011-12	14.05	14.05	0.03	0
2012-13	15.00	15.00	14.05	94

21. Grass root level support system for Agriculture development at Panchayat level and restructuring the Agriculture Department at State and District level

This State plan scheme is implemented under the heads of account 2401-00-001-89 and 4401-00-001-99. The scheme period and its financial progress is given below.

2401-00-001-89

Year	Original outlay	Revised outlay	Accounts	%
2005-06	30.00	30.00	29.09	97
2006-07	80.00	80.00	49.83	62

4401-00-001-99

Year	Original outlay	Revised outlay	Accounts	%
2005-06	20.00	20.00	19.98	100
2006-07	20.00	20.00	19.93	100

22. Kerala Agriculture University for on farm trials and frontline demonstrations

On farm trials and front line demonstrations are parts of agricultural extension. This is a State plan scheme implemented through Kerala Agriculture University from 2007-08 to 2011-12 under the budget head 2415-01-277-90. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	25.00	25.00	25.00	100
2008-09	25.00	25.00	25.00	100
2009-10	25.00	25.00	25.00	100
2010-11	25.00	25.00	25.00	100
2011-12	25.00	50.00	50.00	100

23. Human Resources development- Training support to field functionaries of department and Panchayats

This scheme aims for imparting managerial training to officers in the areas like financial management, technical management and knowledge management to upgrade the technical and managerial competitiveness. This plan scheme is implemented in all the years in the reference period and the head of account associated is 2415-01-277-98. The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	100.00	100.00	88.89	89
2006-07	100.00	90.00	85.32	95
2007-08	10.00	10.00	10.31	103
2008-09	15.00	15.00	14.72	98
2009-10	20.00	20.00	19.10	96
2010-11	50.00	50.00	47.73	95
2011-12	150.00	150.00	88.57	59
2012-13	150.00	143.90	125.43	87
2013-14	150.00	138.90	121.97	88
2014-15	230.00	210.00	142.38	68

24. Promotion of Hi-tech Innovative Agriculture

This State sector plan scheme implemented in 2005-06 and 2006-07 was under the plan 2401-00-800-67. The financial performance is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	100.00	50.00	7.88	16
2006-07	50.00	50.00	33.76	68

25. Value addition and post harvest management (Vision 2010)

The scheme period and financial components of this State plan scheme is given below. The budget provision was under the head 2401-00-108-41. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2006-07	800.00	800.00	432.50	54

26. Development of Kuttanad wetland ecosystem including Idukki district

The outlay provided in this scheme is for the implementation of selected components under Idukki and Kuttanad packages and for meeting the operational costs covering the meetings of steering committee, Kuttanad Prosperity Council, establishment costs and monitoring costs. The implementation period and year wise allocation and expenditure of this scheme are given below. The budget head is 2401-00-800-40. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2008-09	50.00	50.00	50.00	100
2009-10	83.00	83.00	83.00	100
2010-11	500.00	300.00	0.00	0
2011-12	50.00	45.00	0.00	0

27. Public participation in agricultural production programme

This scheme is implemented in 2005-06 and 2006-07 under the plan head 2415-01-277-97. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	70.00	56.00	44.13	79
2006-07	70.00	63.00	48.07	76

28. Sustainable trade security system- Virtual University

The budget allocation to this plan scheme was in 2005-06 and 2006-07 and the scheme head is 2415-01-277-92. The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	100.00	50.00	93.99	188
2006-07	100.00	25.00	0.00	0

29. Nagarathil oru Nattinpuram

This plan scheme was implemented in 2005-06 and 2006-07 and the head of account is 2401-00-119-87. The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	200.00	100.00	41.53	42
2006-07	200.00	50.00	45.07	90

30. Organic farming and safe to eat food production

Organic farming is an emerging area in the country and the export potential of organic products is increasing across the world. The components of the scheme include assistance for organic certification, empowerment of clusters, promotional assistance for clusters, green manuring, model units for OM operation, compost units and safe to eat food production. This is a State plan scheme implemented in all years except in 2007-08, 2008-09 and 2009-10 under the head of account 2401-00-105-85. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2005-06	200.00	166.00	193.28	116
2006-07	200.00	200.00	199.30	100
2010-11	100.00	100.00	96.96	97
2011-12	500.00	500.00	449.93	90
2012-13	1000.00	657.00	279.79	43
2013-14	1000.00	1000.00	975.08	98
2014-15	1000.00	900.00	337.00	37

31. Weather Advisory services

This State sector scheme was implemented in 2007-08 only and the budget allocation was through the head of account 2401-00-110-96. The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	10.00	10.00	10.00	100

32. Rashtriya Krsishi Vikas Yojana (RKVY) (ACA)

This is a special central assistance scheme of the Government of India, primarily aimed at evolving a strategy to rejuvenate the agriculture sector of the State. The objectives of the scheme, in general, are to provide incentives to the State for increasing public investment in agriculture and allied sectors, and in particular, (1) to ensure that agriculture for the State and districts are prepared based on agro-climatic conditions, availability of technology and natural resources; (2) to make sure that local needs/crops/priorities are better reflected in the agricultural plan of the State; (3) to reduce yield gaps in important crops through focused interventions; (4) maximisation of returns to farmers in agriculture and allied sectors; (5) to bring about quantifiable changes in production and productivity of various components of agriculture and allied sectors by addressing them in a holistic manner. This is implemented from 2008-09 in Kerala and the budget allocation is through the plan head 2401-00-800-37. The year wise allocation and expenditure are given below (Rs. in Lakhs).

Year	Original outlay	Revised outlay	Accounts	%
2008-09	1000.00	5540.00	8485.41	153
2009-10	6011.00	11092.00	10922.78	98
2010-11	12000.00	12022.00	12019.81	100
2011-12	22500.00	22500.00	21134.35	94
2012-13	25875.00	25875.00	25255.14	98
2013-14	34076.00	24076.00	23681.31	98
2014-15	45500.00	43918.23	30070.00	68

33. Kissan Sree

Kissan Sree is a State plan scheme implemented in 2008-09 and 2009-10 under the plan head 2401-00-110-93. The year wise financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2008-09	0.00	83.33	72.91	88
2009-10	0.00	62.45	62.45	100

34. Climate change adaptation

Climate change induced increase in temperature and rainfall variability and extreme weather events are projected to produce a rise in crop failure, pests and disease outbreaks and degradation of soil resources. Climate change impacts and associated vulnerability are of particular concern for agriculture in the State. This State sector scheme is implemented in 2011-12 under the plan head 2401-00-107-79. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2011-12	300.00	200.00	195.00	98

35. Development of pulses and tubers

The development of pulses is the main component assuring the food security of the State. The traditional area of cultivation of pulses for their intensification so as to retain the past story of cultivation is envisaged in this programme. This State scheme for development of pulses and tubers is implemented in 2012-13 and 2013-14 under the head of account 2401-00-112-96. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2012-13	150.00	150.00	149.99	100
2013-14	25.00	25.00	25.00	100

36. Hi-Tech Agriculture

Poly houses with low cost technology have been employed successfully to grow vegetables round the year. Green house technology is practiced in the State by very few entrepreneurs. Expansion of seedlings production in plastic perforated trays under favourable microclimate created in cost effective low cost structures. Standardization of new growing media for optimum plant growth, refined technology need to be fine-tuned to suit different agro climatic conditions. This State plan scheme is implemented from 2012-13 to 2014-15 and the budget allocation is through the heads of account 2401-00-800-35 (02) and 2401-00-113-82. The head of account wise financial achievement is given below. (Rs. in Lakhs)

2401-00-800-35 (02)

Year	Original outlay	Revised outlay	Accounts	%
2014-15	100.00	75.00	0.00	0

2401-00-113-82

Year	Original outlay	Revised outlay	Accounts	%
2012-13	1200.00	1200.00	1197.90	100
2013-14	1200.00	1200.00	927.89	77
2014-15	600.00	600.00	426.50	71

37. Soil health management and productivity improvement

The improvement of soil health is essential for augmenting crop productivity considering the depleted nutrient status of the soil resources of the State. The result of soil test based nutrient management is popularized with appropriate link with input agencies. This scheme for the management of soil health and improvement of productivity in agriculture is implemented from 2012-13 onwards and the budget head is 2401-00-800-28. The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2012-13	700.00	400.00	109.19	27
2013-14	400.00	400.00	314.86	79
2014-15	3090.00	2472.00	2058.86	83

38. Crop health management

Notwithstanding the success in controlling the insect pests, diseases and weeds, pesticides adversely affect public health and environment. Residues of pesticides in food crops often been reported to exceed their acceptable limits. The new approach of crop health management will bring together management towards sustainable ecosystems and people's health through good plant protection practices. This plan scheme for crop health management s implemented from 2013-14 under the plan head 2401-00-107-78. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2013-14	1300.00	975.00	849.36	87
2014-15	1335.00	1068.00	812.50	76

39. Restructuring of PSUs in agriculture sector

This special scheme for restructuring of PSUs engaged in agriculture sector is implemented in 2008-09 only. The budget provision was through the plan head 2401-10-190-93 and its financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2008-09	15.00	15.00	15.00	100

40. Assistance for Kerala Agricultural University (ACA)

This ACA scheme for providing financial assistance to Kerala Agriculture University was implemented in 2008-09 under the budget head 2415-01-277-88. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2008-09	300.00	300.00	299.86	100

41. Assistance to Paddico, Palakkad

Assistance to Paddico, a rice development agency in Palakkad district has been provided under this scheme through the head of account 2401-00-195-98 in 2007-08. The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2007-08	0.00	50.00	50.00	100

42. Cropping system research in Kerala

This scheme is implemented in 2011-12 under the plan head 2401-00-102-81 and its financial progress is 100%. The details are as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2011-12	200.00	200.00	200.00	100

43. 13th Finance Commission award

Kuttanad package is implemented with the support of Govt of India and State plans for the revival of Kuttanad wetland ecosystems. The major component of this package is the strengthening of the outer bund. The outlay provided is for the implementation of selected components of Kuttanad package approved under 13th Finance Commission award. The head of account is 2401-00-800-32 and the financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2011-12	7500.00	7500.00	5506.00	73
2012-13	7500.00	7500.00	5683.17	76
2013-14	7500.00	5450.00	4916.55	90
2014-15	7500.00	7500.00	7500.00	100

44. Value Addition

This is a State scheme implemented under the heads of account 2408-01-800-81 and 2435-01-800-94. The scheme period and the financial progress under each head are as follows. (Rs. in Lakhs)

2408-01-800-81

Year	Original outlay	Revised outlay	Accounts	%
2013-14	10.00	10.00	10.00	100

2435-01-800-94

Year	Original outlay	Revised outlay	Accounts	%
2012-13	1500.00	1317.00	1111.11	84
2013-14	340.00	340.00	180.00	53
2014-15	315.00	283.51	240.00	85

45. Pilot scheme on income support

This is a State plan scheme implemented under the budget head 2401-00-800-26. The scheme period and its financial component are given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2012-13	400.00	320.00	0.00	0
2013-14	500.00	250.00	0.00	0

46. Kuttanad heritage project

Kuttanad package is implemented from 2013-14 under the plan head 2401-00-800-23 for the development of Kuttanad wetland ecosystem. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2013-14	500.00	250.00	100.00	40
2014-15	500.00	45.00	0.00	0

47. Wayanad package

Wayanad package is implemented in the State from 2012-13 onwards under the plan head 2401-00-800-27. The financial progress is given below. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2012-13	2500.00	2500.00	2253.18	90
2013-14	1900.00	1900.00	1500.27	79
2014-15	1900.00	1805.00	856.81	47

48. School Bio Gas

This new scheme is implemented in 2014-15 under the budget head 2401-00-109-71. The financial performance is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2014-15	0.00	514.04	418.76	81

49. Integrated Agri Garden scheme

This scheme is implemented in 2014-15 under budget head 2401-00-104-81. The financial progress is as follows. (Rs. in Lakhs)

Year	Original outlay	Revised outlay	Accounts	%
2014-15	0.00	259.89	259.88	100

ANNEXURES

1. State Plan schemes- Outlay and Expenditure from the years 2005-06 to 2014-15 (Rs. in Lakhs)

SI No	SCHEME NAME	Head of Acct	2005-06				2006-07				2007-08			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Production and distribution of quality planting materials- Agricultural farms	2401-00-104-91	160	160	158.44	99	120	120	119.42	100	110	110	109.96	100
		4401-00-104-98	40	40	39.23	98	30	30	27.36	91	15	15	14.94	100
2	Production and distribution of quality planting materials- VFPCCK Kerala	2401-00-103-82									50	50	50.01	100
3	Production and distribution of quality planting materials- Seed authority	2401-00-103-83									75	75	75	100
4	Kerala Agricultural University for planting material programme	2401-00-103-79												
		2415-01-277-91									75	75	75	100
5	Grass root level support system for Agriculture development at Panchayat level and restructuring the Agriculture Dept at State and District level	2401-00-001-89	30	30	29.09	97	80	80	49.83	62				
		4401-00-001-99	20	20	19.98	100	20	20	19.93	100				
6	Integrated Pest Management System	2401-00-107-83	46	46	37.91	82	50	50	45.28	91	50	50	47.25	95
7	Sustainable development of rice based farming system through group action (Integrated food crop production)	2401-00-102-90	1800	1800	1577.5	88	1800	1850	1838.24	99	1425	1425	1406.59	99

2008-09 to 2010-11 BE- Budget Estimate, RE- Revised Estimate, Accts- Accounts, %- % of Accts against RE

SI No	SCHEME NAME	Head of Acct	2008-09				2009-10				2010-11			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27
1	Production and distribution of quality planting materials- Agricultural farms	2401-00-104-91	110	110	109.97	100	0	110	108.55	99	175	175	169.7	97
		4401-00-104-98	15	15	14.53	97	15	15	14.75	98	25	25	21.98	88
2	Production and distribution of quality planting materials- VFPCCK Kerala	2401-00-103-82	25	25	25	100								
3	Production and distribution of quality planting materials- Seed authority	2401-00-103-83	50	50	50	100	50	50	50	100	50	50	50	100
4	Kerala Agricultural University for planting material programme	2401-00-103-79									50	50	50	100
		2415-01-277-91	50	50	50	100								
5	Grass root level support system for Agriculture development at Panchayat level and restructuring the Agriculture Dept at State and District level	2401-00-001-89												
		4401-00-001-99												
6	Integrated Pest Management System	2401-00-107-83	50	50	47.72	95	50	50	39.23	78	50	50	47.14	94
7	Sustainable development of rice based farming system through group action (Integrated food crop production)	2401-00-102-90	2000	2000	1999.72	100	2300	2300	2288.7	100	2900	2900	2892.14	100

State Plan Schemes 1 to 7, 2011-12 to 2013-14

SI No	SCHEME NAME	Head of Acct	2011-12				2012-13				2013-14			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	28	29	30	31	32	33	34	35	36	37	38	39
1	Production and distribution of quality planting materials- Agricultural farms	2401-00-104-91	200	200	196.34	98	660	660	608.57	92	620	620	515.39	83
		4401-00-104-98	25	25	25	100	40	38	14.25	38	230	230	231.13	100
2	Production and distribution of quality planting materials- VFPC Kerala	2401-00-103-82												
3	Production and distribution of quality planting materials- Seed authority	2401-00-103-83	25	25	25.02	100								
4	Kerala Agricultural University for planting material programme	2401-00-103-79	50	50	50	100								
		2415-01-277-91												
5	Grass root level support system for Agriculture development at Panchayat level and restructuring the Agriculture Dept at State and District level	2401-00-001-89												
		4401-00-001-99												
6	Integrated Pest Management System	2401-00-107-83	50	50	48.15	96	100	90.5	57.42	63				
7	Sustainable development of rice based farming system through group action (Integrated food crop production)	2401-00-102-90	2900	2900	2898.65	100	5000	5000	4910.14	98	5000	5000	4939.62	99

State Plan Schemes 1 to 7, 2014-15 and Total for 10 years

SI No	SCHEME NAME	Head of Acct	2014-15				Ten Years Total			
			BE	RE	Expr	%	BE	RE	Expr	%
1	2	3	40	41	42	43	44	45	46	47
1	Production and distribution of quality planting materials- Agricultural farms	2401-00-104-91	1075	810	770.05	95	3230	3075	2866.39	93
		4401-00-104-98	375	337.5	291.23	86	810	770.5	694.4	90
2	Production and distribution of quality planting materials- VFPCCK Kerala	2401-00-103-82						75	75.01	100
		2401-00-103-83						250	250.02	100
4	Kerala Agricultural University for planting material programme	2401-00-103-79						100	100	100
		2415-01-277-91						125	125	100
5	Grass root level support system for Agriculture development at Panchayat level and restructuring the Agriculture Dept at State and District level	2401-00-001-89					110	110	78.92	72
		4401-00-001-99					40	40	39.91	100
6	Integrated Pest Management System	2401-00-107-83					446	436.5	370.1	85
7	Sustainable development of rice based farming system through group action (Integrated food crop production)	2401-00-102-90	3352	3352	3313.52	99	28477	28527	28064.82	98

State Plan Schemes 8 to 16, 2005-06 to 2007-08

SI No	SCHEME NAME	Head of Acct	2005-06				2006-07				2007-08			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
8	Quality control of fertilizers and pesticides- Additional facilities for existing laboratories	2401-00-105-97	15	15	14.8	99	15	15	14.84	99				
9	Coconut development	2401-00-103-87	455	455	449.73	99	1023	1023	1014.96	99	1120	1120	1114.41	100
10	Development of vegetables- Vegetable promotion through dept of agriculture	2401-00-119-85												
11	Promotion of vegetable cultivation through VFPC in selected districts	2401-00-119-92	400	400	405.71	101	400	300	250	83				
12	Agricultural extension and communication- Strengthening agricultural extension	2401-00-109-80									115	115	112.43	98
13	Agricultural extension and communication- SAMETI	2401-00-800-42												
14	Agricultural extension and communication- Kisan project	2401-00-800-36												
15	Agricultural extension and communication- Kerala Agriculture University	2401-00-109-78												
16	Agricultural extension and communication- ATMA call centres (one time ACA)	2401-00-109-73												

State Plan Schemes 8 to 16, 2008-09 to 2010-11

SI No	SCHEME NAME	Head of Acct	2008-09				2009-10				2010-11			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27
8	Quality control of fertilizers and pesticides- Additional facilities for existing laboratories	2401-00-105-97												
9	Coconut development	2401-00-103-87	1500	1500	1469.61	98	1525	1525	1510.06	99	3000	3000	2864.07	95
10	Development of vegetables- Vegetable promotion through dept of agriculture	2401-00-119-85	60	191.88	186.29	97	125	125	124.8	100	307	307	286.31	93
11	Promotion of vegetable cultivation through VFPC in selected districts	2401-00-119-92	40	40	40	100	75	75	75	100	225	225	225	100
12	Agricultural extension and communication- Strengthening agricultural extension	2401-00-109-80	155	155	149.2	96	195	152.95	136.12	89	442	355.12	225.05	63
13	Agricultural extension and communication- SAMETI	2401-00-800-42	100	100	100.1	100	60	160	160	100	60	60	60	100
14	Agricultural extension and communication- Kisan project	2401-00-800-36					25	25	25	100	35	35	35	100
15	Agricultural extension and communication- Kerala Agriculture University	2401-00-109-78									50	50	50	100
16	Agricultural extension and communication- ATMA call centres (one time ACA)	2401-00-109-73												

State Plan Schemes 8 to 16, 2011-12 to 2013-14

SI No	SCHEME NAME	Head of Acct	2011-12				2012-13				2013-14			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	28	29	30	31	32	33	34	35	36	37	38	39
8	Quality control of fertilizers and pesticides- Additional facilities for existing laboratories	2401-00-105-97												
9	Coconut development	2401-00-103-87	3000	3000	2941.44	98	4500	4276	4478.17	105	5000	5000	6686.45	134
10	Development of vegetables- Vegetable promotion through dept of agriculture	2401-00-119-85	350	350	345.59	99	4250	4313.7	4307.18	100	5625	5625	5346.69	95
11	Promotion of vegetable cultivation through VFPC in selected districts	2401-00-119-92	325	325	325	100	600	600	600	100				
12	Agricultural extension and communication- Strengthening agricultural extension	2401-00-109-80	705	705	704.87	100	1725	1553.45	1244.23	80	2400	2400	1960.96	82
13	Agricultural extension and communication- SAMETI	2401-00-800-42	100	100	100	100								
14	Agriculture extension and communication- Kisan project	2401-00-800-36	40	40	40	100								
15	Agricultural extension and communication- Kerala Agriculture University	2401-00-109-78	50	50	0	0	75	75	0	0	100	50	16.93	34
16	Agricultural extension and communication- ATMA call centres (one time ACA)	2401-00-109-73												

State Plan Schemes 8 to 16, 2014-15 and 10 years total

SI No	SCHEME NAME	Head of Acct	2014-15				10 years Total			
			BE	RE	Accts	%	BE	RE	Expr	%
1	2	3	40	41	42	43	44	45	46	47
8	Quality control of fertilizers and pesticides- Additional facilities for existing laboratories	2401-00-105-97					30	30	29.64	99
9	Coconut development	2401-00-103-87	4500	4500	2508.07	56	25623	25399	25036.97	99
10	Development of vegetables- Vegetable promotion through dept of agriculture	2401-00-119-85	6400	6400	5912.56	92	17117	17312.58	16509.42	95
11	Promotion of vegetable cultivation through VFPC in selected districts	2401-00-119-92					2065	1965	1920.71	98
12	Agricultural extension and communication- Strengthening agricultural extension	2401-00-109-80	3500	2627.75	2150.32	82	9237	8064.27	6683.18	83
13	Agricultural extension and communication- SAMETI	2401-00-800-42					320	420	420.1	100
14	Agricultural extension and communication- Kisan project	2401-00-800-36					100	100	100	100
15	Agricultural extension and communication- Kerala Agriculture University	2401-00-109-78					275	225	66.93	30
16	Agricultural extension and communication- ATMA call centres (one time ACA)	2401-00-109-73	500	500	500	100	500	500	500	100

State Plan Schemes 17 to 24, 2005-06 to 2007-08

SI No	SCHEME NAME	Head of Acct	2005-06				2006-07				2007-08			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
17	Agro service centres	2401-00-113-86					100	100	0	0	20	20	20	100
18	Farm information and communication	4401-00-109-99									10	10	9.98	100
		2401-00-109-84	100	100	98.73	99	100	100	99.29	99	105	105	105.02	100
19	On farm trials, frontline demonstrations and participatory technology development- Assistance to VFPCCK	2401-00-109-81									25	25	25	100
20	Kerala Agriculture University for on farm trials and frontline demonstrations	2415-01-277-90									25	25	25	100
21	Application of Information Technology	2401-00-800-41												
22	Small Farm mechanisation and agriculture engineering services	4401-00-113-99	5	5	5	100	5	5	5	100	4.24	4.24	4.23	100
		2401-00-113-90	70	70	65.76	94	20	20	19.27	96				
23	Human Resources development- Training support to field functionaries of department and Panchayats	2415-01-277-98	100	100	88.89	89	100	90	85.32	95	10	10	10.31	103
24	Production risk management- Crop insurance fund including paddy crop insurance	2401-00-110-99	75	75	75	100	100	100	100	100	100	100	100	100

State Plan Schemes 17 to 24, 2008-09 to 2010-11

SI No	SCHEME NAME	Head of Acct	2008-09				2009-10				2010-11			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27
17	Agro service centres	2401-00-113-86	20	20	19.87	99	20	20	19.89	99	25	25	21.98	88
18	Farm information and communication	4401-00-109-99									25	25	6.5	26
		2401-00-109-84	115	115	115.03	100	120	120	118.87	99	165	165	164.28	100
19	On farm trials, frontline demonstrations and participatory technology development- Assistance to VFPCCK	2401-00-109-81	25	25	25	100								
20	Kerala Agriculture University for on farm trials and frontline demonstrations	2415-01-277-90	25	25	25	100	25	25	25	100	25	25	25	100
21	Application of Information Technology	2401-00-800-41	15	15	12.10	81	15	15	14.17	94	25	25	24.87	99
22	Small Farm mechanisation and agriculture engineering services	4401-00-113-99												
		2401-00-113-90	50	50	42.78	86	50	50	49.93	100	200	200	176.16	88
23	Human Resources development- Training support to field functionaries of department and Panchayats	2415-01-277-98	15	15	14.72	98	20	20	19.1	96	50	50	47.73	95
24	Production risk management- Crop insurance fund including paddy crop insurance	2401-00-110-99	100	100	100	100	100	100	100	100	100	100	100	100

State Plan Schemes 17 to 24, 2011-12 to 2013-14

SI No	SCHEME NAME	Head of Acct	2011-12				2012-13				2013-14			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	28	29	30	31	32	33	34	35	36	37	38	39
17	Agro service centres	2401-00-113-86	15	15	12.02	80								
18	Farm information and communication	4401-00-109-99	25	25	0	0	25	25	25	100	25	25	25	100
		2401-00-109-84	225	225	222.53	99	325	325	323.33	99	350	350	347.6	99
19	On farm trials, frontline demonstrations and participatory technology development- Assistance to VFPCCK	2401-00-109-81												
20	Kerala Agriculture University for on farm trials and frontline demonstrations	2415-01-277-90	25	50	50	100								
21	Application of Information Technology	2401-00-800-41	200	200	147.76	74								
22	Small Farm mechanisation and agriculture engineering services	4401-00-113-99												
		2401-00-113-90	100	100	98.38	98								
23	Human Resources development- Training support to field functionaries of department and Panchayats	2415-01-277-98	150	150	88.57	59	150	143.9	125.43	87	150	138.9	121.97	88
24	Production risk management- Crop insurance fund including paddy crop insurance	2401-00-110-99	100	100	100	100	920	920	920	100	570	570	570	100

State Plan Schemes 17 to 24, 2014-15 and total for 10 years

SI No	SCHEME NAME	Head of Acct	2014-15				Total for 10 years			
			BE	RE	Expr	%	BE	RE	Expr	%
1	2	3	40	41	42	43	44	45	46	47
17	Agro service centres	2401-00-113-86					200	200	93.76	47
18	Farm information and communication	4401-00-109-99	25	25	0	0	135	135	66.48	49
		2401-00-109-84	375	375	375	100	1980	1980	1969.68	99
19	On farm trials, frontline demonstrations and participatory technology development- Assistance to VFPC	2401-00-109-81					50	50	50	100
20	Kerala Agriculture University for on farm trials and frontline demonstrations	2415-01-277-90					125	150	150	100
21	Application of Information Technology	2401-00-800-41					255.00	255.00	198.90	78
22	Small Farm mechanisation and agriculture engineering services	4401-00-113-99					14.24	14.24	14.23	100
		2401-00-113-90					490	490	452.28	92
23	Human Resources development- Training support to field functionaries of department and Panchayats	2415-01-277-98	230	210	142.38	68	975	927.8	744.42	80
24	Production risk management- Crop insurance fund including paddy crop insurance	2401-00-110-99	500	500	500	100	2665	2665	2665	100

State Plan Schemes 25 to 35, 2005-06 to 2007-08

SI No	SCHEME NAME	Head of Acct	2005-06				2006-07				2007-08			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
25	National agricultural insurance programme	2401-00-110-97	100	274.89	233.11	85	200	160	16.59	10	200	120	114.07	95
26	Govt of India supported insurance scheme (One time ACA)	2401-00-110-87												
27	Coconut crop insurance	2401-00-110-95												
28	Contingency programme to meet natural calamities	2401-00-800-91					25	25	23.81	95	20	1220	1220.78	100
29	Weather based insurance	2401-00-110-94												
30	Paddy crop insurance	2401-00-110-92												
31	Vegetable crop insurance	2401-00-110-90												
32	Setting up of automatic weather stations for implementing weather insurance	2401-00-110-89												
33	Kerala State Horticultural Products development corporation- share capital contribution	4401-00-190-97	5	30	30	100	50	50	50	100	5	55	55	100
34	State Horticulture Mission- State share	2401-00-119-86									300	300	300	100
35	Promotion of Hi-tech Innovative Agriculture	2401-00-800-67	100	50	7.88	16	50	50	33.76	68				

State Plan Schemes 25 to 35, 2008-09 to 2010-11

SI No	SCHEME NAME	Head of Acct	2008-09				2009-10				2010-11			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27
25	National agricultural insurance programme	2401-00-110-97	100	267.23	267.23	100	150	150	77.9	52	150	150	150	100
26	Govt of India supported insurance scheme (One time ACA)	2401-00-110-87												
27	Coconut crop insurance	2401-00-110-95	100	50	0	0	25	25	25	100	25	25	0	0
28	Contingency programme to meet natural calamities	2401-00-800-91	20	1300	1299.43	100	20	20	20.09	100	50	50	50.41	101
29	Weather based insurance	2401-00-110-94					25	65.2	65.2	100	25	25	25	100
30	Paddy crop insurance	2401-00-110-92									500	500	500	100
31	Vegetable crop insurance	2401-00-110-90												
32	Setting up of automatic weather stations for implementing weather insurance	2401-00-110-89												
33	Kerala State Horticultural Products development corporation- share capital contribution	4401-00-190-97	10	10	10	100	10	10	10	100	10	10	10	100
34	State Horticulture Mission- State share	2401-00-119-86	200	1326.6	1326.6	100	200	200	200	100	200	785	785	100
35	Promotion of Hi-tech Innovative Agriculture	2401-00-800-67												

State Plan Schemes 25 to 35, 2011-12 to 2013-14

SI No	SCHEME NAME	Head of Acct	2011-12				2012-13				2013-14			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	28	29	30	31	32	33	34	35	36	37	38	39
25	National agricultural insurance programme	2401-00-110-97	150	150	0	0					100	100	100	100
26	Govt of India supported insurance scheme (One time ACA)	2401-00-110-87												
27	Coconut crop insurance	2401-00-110-95	25	25	0	0					25	25	0	0
28	Contingency programme to meet natural calamities	2401-00-800-91	50	105	105.97	101	79	212.41	210.7	99	80	80	97.4	122
29	Weather based insurance	2401-00-110-94	25	100	100	100					50	50	50	100
30	Paddy crop insurance	2401-00-110-92	400	400	400	100								
31	Vegetable crop insurance	2401-00-110-90									150	150	150	100
32	Setting up of automatic weather stations for implementing weather insurance	2401-00-110-89									55	55	0	0
33	Kerala State Horticultural Products development corporation- share capital contribution	4401-00-190-97	10	10	10	100								
34	State Horticulture Mission- State share	2401-00-119-86	1100	1773.24	1773.24	100	1100	1100	1100	100	1100	1100	1097.6	100
35	Promotion of Hi-tech Innovative Agriculture	2401-00-800-67												

State Plan Schemes 25 to 35, 2014-15 and total for 10 years

SI No	SCHEME NAME	Head of Acct	2014-15				Total for 10 years			
			BE	RE	Expr	%	BE	RE	Expr	%
1	2	3	40	41	42	43	44	45	46	47
25	National agricultural insurance programme	2401-00-110-97					1150	1372.12	958.9	70
26	Govt of India supported insurance scheme (One time ACA)	2401-00-110-87	100	100	100	100	100	100	100	100
27	Coconut crop insurance	2401-00-110-95					200	150	25	17
28	Contingency programme to meet natural calamities	2401-00-800-91	300	240	117.91	49	644	3252.41	3146.5	97
29	Weather based insurance	2401-00-110-94					125	240.2	240.2	100
30	Paddy crop insurance	2401-00-110-92					900	900	900	100
31	Vegetable crop insurance	2401-00-110-90					150	150	150	100
32	Setting up of automatic weather stations for implementing weather insurance	2401-00-110-89					55	55	0	0
33	Kerala State Horticultural Products development corporation- share capital contribution	4401-00-190-97		25	25	100	100	200	200	100
34	State Horticulture Mission- State share	2401-00-119-86	1100	8900	2225	25	5300	15484.84	8807.44	57
35	Promotion of Hi-tech Innovative Agriculture	2401-00-800-67					150	100	41.64	42

State Plan Schemes 36 to 46, 2005-06 to 2007-08

SI No	SCHEME NAME	Head of Acct	2005-06				2006-07				2007-08			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
36	Establishment of modern laboratories	4401-00-107-97	150	150	28.49	19	100	100	22.6	23	100	95.76	86.08	90
37	Modernisation of departmental laboratories	2401-00-105-86	150	82.5	59.06	72	100	100	99.43	99	100	100	98.58	99
38	Value addition and post harvest management (Vision 2010)	2401-00-108-41					800	800	432.5	54				
39	Floriculture	2401-00-108-40					100	100	100	100				
40	Rural Infrastructure Development Fund Projects (RIDF)	4401-00-104-96					1500	900	0	0	1000	750	0	0
41	Development of Kuttanad wetland ecosystem including Idukki district	2401-00-800-40												
42	Public participation in agriculture production programme	2415-01-277-97	70	56	44.13	79	70	63	48.07	76				
43	Establishment of Agriculture Export Zone	2401-00-800-52	475	237.5	4.2	2	175	15	15	100				
44	Sustainable trade security system- Virtual University	2415-01-277-92	100	50	93.99	188	100	25	0	0				
45	Nagarathil oru Nattinpuram	2401-00-119-87	200	100	41.53	42	200	50	45.07	90				
46	Loans to Agro Industries Corporation (KAIC)	6401-00-800-82		150	239.99	160		80	80	100				
		6401-00-190-96												

State Plan Schemes 36 to 46, 2008-09 to 2010-11

SI No	SCHEME NAME	Head of Acct	2008-09				2009-10				2010-11			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27
36	Establishment of modern laboratories	4401-00-107-97	50	50	42.21	84	50	50	48.94	98	100	100	20.24	20
37	Modernisation of departmental laboratories	2401-00-105-86	150	150	140.43	94	150	150	150.15	100	400	400	375.45	94
38	Value addition and post harvest management (Vision 2010)	2401-00-108-41												
39	Floriculture	2401-00-108-40												
40	Rural Infrastructure Development Fund Projects (RIDF)	4401-00-104-96	500	500	0	0	500	250	100	40	100	100	0	0
41	Development of Kuttanad wetland ecosystem including Idukki district	2401-00-800-40	50	50	50	100	83	83	83	100	500	300	0	0
42	Public participation in agriculture production programme	2415-01-277-97												
43	Establishment of Agriculture Export Zone	2401-00-800-52												
44	Sustainable trade security system- Virtual University	2415-01-277-92												
45	Nagarathil oru Nattinpuram	2401-00-119-87												
46	Loans to Agro Industries Corporation (KAIC)	6401-00-800-82												
		6401-00-190-96					0	215	215	100				

State Plan Schemes 36 to 46, 2011-12 to 2013-14

SI No	SCHEME NAME	Head of Acct	2011-12				2012-13				2013-14			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	28	29	30	31	32	33	34	35	36	37	38	39
36	Establishment of modern laboratories	4401-00-107-97	60	60	42.88	71	60	60	52.65	88	435	326.25	251.43	77
37	Modernisation of departmental laboratories	2401-00-105-86	735	535	508.85	95	440	356	242.29	68	65	65	60.01	92
38	Value addition and post harvest management (Vision 2010)	2401-00-108-41												
39	Floriculture	2401-00-108-40												
40	Rural Infrastructure Development Fund Projects (RIDF)	4401-00-104-96	100	100	41	41								
41	Development of Kuttanad wetland ecosystem including Idukki district	2401-00-800-40	50	45	0	0								
42	Public participation in agriculture production programme	2415-01-277-97												
43	Establishment of Agriculture Export Zone	2401-00-800-52												
44	Sustainable trade security system- Virtual University	2415-01-277-92												
45	Nagarathil oru Nattinpuram	2401-00-119-87												
46	Loans to Agro Industries Corporation (KAIC)	6401-00-800-82												
		6401-00-190-96												

State Plan Schemes 36 to 46, 2014-15 and total for 10 years

SI No	SCHEME NAME	Head of Acct	2014-15				Total for 10 years			
			BE	RE	Expr	%	BE	RE	Expr	%
1	2	3	40	41	42	43	44	45	46	47
36	Establishment of modern laboratories	4401-00-107-97	375	337.5	214.17	63	1480	1329.51	809.69	61
37	Modernisation of departmental laboratories	2401-00-105-86	100	84.24	28.59	34	2390	2022.74	1762.84	87
38	Value addition and post harvest management (Vision 2010)	2401-00-108-41					800	800	432.5	54
39	Floriculture	2401-00-108-40					100	100	100	100
40	Rural Infrastructure Development Fund Projects (RIDF)	4401-00-104-96					3700	2600	141	5
41	Development of Kuttanad wetland ecosystem including Idukki district	2401-00-800-40					683	478	133	28
42	Public participation in agriculture production programme	2415-01-277-97					140	119	92.2	77
43	Establishment of Agriculture Export Zone	2401-00-800-52					650	252.5	19.2	8
44	Sustainable trade security system- Virtual University	2415-01-277-92					200	75	93.99	125
45	Nagarathil oru Nattinpuram	2401-00-119-87					400	150	86.6	58
46	Loans to Agro Industries Corporation (KAIC)	6401-00-800-82					0	230	319.99	139
		6401-00-190-96					0	215	215	100

State Plan Schemes 47 to 58, 2005-06 to 2007-08

SI No	SCHEME NAME	Head of Acct	2005-06				2006-07				2007-08			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
47	Organic farming and safe to eat food production	2401-00-105-85	200	166	193.28	116	200	200	199.3	100				
48	Weather Advisory services	2401-00-110-96									10	10	10	100
49	Payment to Coconut Development Board [Control of Eridiophydrite in coconut] (see AGR 059)	2401-00-800-43					1000	1000	1000	100	0	211	211	100
50	Rashtriya Krsishi Vikas Yojana (RKVY) (ACA)	2401-00-800-37												
51	Share capital contribution to KSPDC for implementing the scheme Harithavipanam of HortiCorp	4401-00-119-99												
52	Kissan Sree	2401-00-110-93												
53	Pepper package in Wayanad	2401-00-108-37												
54	Climate change adaptation	2401-00-107-79												
55	Development of pulses and tubers	2401-00-112-96												
56	Vegetable development-support to VFPC	2401-00-119-81												
57	Development of spices	2401-00-108-59												
58	Agro service centres and service delivery	4401-00-113-98												
		2401-00-113-83												

State Plan Schemes 47 to 58, 2008-09 to 2010-11

SI No	SCHEME NAME	Head of Acct	2008-09				2009-10				2010-11			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27
47	Organic farming and safe to eat food production	2401-00-105-85									100	100	96.96	97
48	Weather Advisory services	2401-00-110-96												
49	Payment to Coconut Development Board [Control of Eridiophydmite in coconut] (see AGR 059)	2401-00-800-43												
50	Rashtriya Krsishi Vikas Yojana (RKVY) (ACA)	2401-00-800-37	1000	5540	8485.41	153	6011	11092	10922.78	98	12000	12022	12019.81	100
51	Share capital contribution to KSPDC for implementing the scheme Harithavipanam of HortiCorp	4401-00-119-99										500	500	100
52	Kissan Sree	2401-00-110-93		83.33	72.91	88		62.45	62.45	100				
53	Pepper package in Wayanad	2401-00-108-37									600	600	550.71	92
54	Climate change adaptation	2401-00-107-79												
55	Development of pulses and tubers	2401-00-112-96												
56	Vegetable development-support to VFPC	2401-00-119-81												
57	Development of spices	2401-00-108-59												
58	Agro service centres and service delivery	4401-00-113-98												
		2401-00-113-83												

State Plan Schemes 47 to 58, 2011-12 to 2013-14

SI No	SCHEME NAME	Head of Acct	2011-12				2012-13				2013-14			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	28	29	30	31	32	33	34	35	36	37	38	39
47	Organic farming and safe to eat food production	2401-00-105-85	500	500	449.93	90	1000	657	279.79	43	1000	1000	975.08	98
48	Weather Advisory services	2401-00-110-96												
49	Payment to Coconut Development Board [Control of Eridiophydmite in coconut] (see AGR 059)	2401-00-800-43												
50	Rashtriya Krsishi Vikas Yojana (RKVY) (ACA)	2401-00-800-37	22500	22500	21134.35	94	25875	25875	25255.14	98	34076	24076	23681.31	98
51	Share capital contribution to KSPDC for implementing the scheme Harithavipanam of HortiCorp	4401-00-119-99												
52	Kissan Sree	2401-00-110-93												
53	Pepper package in Wayanad	2401-00-108-37	650	650	645.25	99								
54	Climate change adaptation	2401-00-107-79	300	200	195	98								
55	Development of pulses and tubers	2401-00-112-96					150	150	149.99	100	25	25	25	100
56	Vegetable development-support to VFPC	2401-00-119-81									600	600	600	100
57	Development of spices	2401-00-108-59					1900	1338.4	1002.5	75	1600	1600	1595.13	100
58	Agro service centres and service delivery	4401-00-113-98									805	805	729.19	91
		2401-00-113-83					2000	1400	965.69	69	295	295	259.53	88

State Plan Schemes 47 to 58, 2014-15 and total for 10 years

SI No	SCHEME NAME	Head of Acct	2014-15				Total for 10 years			
			BE	RE	Expr	%	BE	RE	Expr	%
1	2	3	40	41	42	43	44	45	46	47
47	Organic farming and safe to eat food production	2401-00-105-85	1000	900	337	37	4000	3523	2531.34	72
48	Weather Advisory services	2401-00-110-96					10	10	10	100
49	Payment to Coconut Development Board [Control of Eridiophydmite in coconut] (see AGR 059)	2401-00-800-43					1000	1211	1211	100
50	Rashtriya Krsishi Vikas Yojana (RKVY) (ACA)	2401-00-800-37	45500	43918.23	30070	68	146962	145023.2	131568.8	91
51	Share capital contribution to KSPDC for implementing the scheme Harithavipanam of HortiCorp	4401-00-119-99					0	500	500	100
52	Kissan Sree	2401-00-110-93					0	145.78	135.36	93
53	Pepper package in Wayanad	2401-00-108-37					1250	1250	1195.96	96
54	Climate change adaptation	2401-00-107-79					300	200	195	98
55	Development of pulses and tubers	2401-00-112-96					175	175	174.99	100
56	Vegetable development-support to VFPC	2401-00-119-81	600	600	600	100	1200	1200	1200	100
57	Development of spices	2401-00-108-59	1525	1525	1437.55	94	5025	4463.4	4035.18	90
58	Agro service centres and service delivery	4401-00-113-98	980	564.4	520.78	92	1785	1369.4	1249.97	91
		2401-00-113-83	1770	1327.5	924.55	70	4065	3022.5	2149.77	71

State Plan Schemes 59 to 66, 2005-06 to 2007-08

SI No	SCHEME NAME	Head of Acct	2005-06				2006-07				2007-08			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
59	Hi-Tech Agriculture	2401-00-800-35 (02)												
		2401-00-113-82												
60	Soil health management and productivity improvement	2401-00-800-28												
61	Crop health management	2401-00-107-78												
62	Grading and quality control of agricultural commodities	2435-01-102-99	10	5	4.6	92	10	10	9.55	96	10	10	5.29	53
63	Risk management in market and market development- Market intervention support for price stabilization	2435-01-101-85	440	592.68	595.88	101	340	1109.46	1069.41	96	1555	1321.75	178.97	14
		6401-00-800-73					17	17	0	0				
64	Strengthening market development	2435-01-800-99									850	637.5	18.81	3
		2435-01-101-85												
65	VFPCK for expansion of farmers market	2435-01-800-98									100	100	100	100
66	Establishment of storage and warehousing facilities through Agro Industries Corporation	2435-01-800-97									25	25	25	100

State Plan Schemes 59 to 66, 2008-09 to 2010-11

SI No	SCHEME NAME	Head of Acct	2008-09				2009-10				2010-11			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27
59	Hi-Tech Agriculture	2401-00-800-35 (02)												
		2401-00-113-82												
60	Soil health management and productivity improvement	2401-00-800-28												
61	Crop health management	2401-00-107-78												
62	Grading and quality control of agricultural commodities	2435-01-102-99	10	10	8	80	10	10	8.45	85	10	10	5.36	54
63	Risk management in market and market development- Market intervention support for price stabilization	2435-01-101-85	350	300	207.06	69	350	315	282.86	90	505	505	494.98	98
		6401-00-800-73												
64	Strengthening market development	2435-01-800-99	510	300	8	3	25	25	25	100	175	175	136.15	78
		2435-01-101-85												
65	VFPCK for expansion of farmers market	2435-01-800-98	100	100	100	100	100	100	100	100	300	300	300	100
66	Establishment of storage and warehousing facilities through Agro Industries Corporation	2435-01-800-97	25	25	25	100	25	25	25	100	25	25	25	100

State Plan Schemes 59 to 66, 2011-12 to 2013-14

SI No	SCHEME NAME	Head of Acct	2011-12				2012-13				2013-14			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	28	29	30	31	32	33	34	35	36	37	38	39
59	Hi-Tech Agriculture	2401-00-800-35 (02)												
		2401-00-113-82					1200	1200	1197.9	100	1200	1200	927.89	77
60	Soil health management and productivity improvement	2401-00-800-28					700	400	109.19	27	400	400	314.86	79
61	Crop health management	2401-00-107-78									1300	975	849.36	87
62	Grading and quality control of agricultural commodities	2435-01-102-99	10	10	6.94	69								
63	Risk management in market and market development- Market intervention support for price stabilization	2435-01-101-85	350	906.85	901.47	99								
		6401-00-800-73												
64	Strengthening market development	2435-01-800-99	310	310	269.97	87	2500	2250	1859.55	83	1385	1385	1198.19	87
		2435-01-101-85					500	4517	4506.62	100	500	3028.78	3071.51	101
65	VFPCK for expansion of farmers market	2435-01-800-98	450	450	450	100								
66	Establishment of storage and warehousing facilities through Agro Industries Corporation	2435-01-800-97	25	25	25	100								

State Plan Schemes 59 to 66, 2014-15 and total for 10 years

SI No	SCHEME NAME	Head of Acct	2014-15				Total for 10 years			
			BE	RE	Expr	%	BE	RE	Expr	%
1	2	3	40	41	42	43	44	45	46	47
59	Hi-Tech Agriculture	2401-00-800-35 (02)	100	75	0	0	100	75	0	0
		2401-00-113-82	600	600	426.5	71	3000	3000	2552.29	85
60	Soil health management and productivity improvement	2401-00-800-28	3090	2472	2058.86	83	4190	3272	2482.91	76
61	Crop health management	2401-00-107-78	1335	1068	812.5	76	2635	2043	1661.86	81
62	Grading and quality control of agricultural commodities	2435-01-102-99					70	65	48.19	74
63	Risk management in market and market development- Market intervention support for price stabilization	2435-01-101-85					3890	5050.74	3730.63	74
		6401-00-800-73					17	17	0	0
64	Strengthening market development	2435-01-800-99	1355	1219.5	1033.22	85	7110	6302	4548.89	72
		2435-01-101-85	1000	2100	2094.25	100	2000	9645.78	9672.38	100
65	VFPC for expansion of farmers market	2435-01-800-98					1050	1050	1050	100
66	Establishment of storage and warehousing facilities through Agro Industries Corporation	2435-01-800-97					125	125	125	100

State Plan Schemes 67 to 76, 2005-06 to 2007-08

SI No	SCHEME NAME	Head of Acct	2005-06				2006-07				2007-08			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
67	Assistance to Kerala State Warehousing Corporation for creating storage and warehousing facilities	2435-01-800-96									25	25	25	100
68	World Trade Organisation (WTO) Cell (Sustainable agricultural trade security system)	2401-00-800-48	20	20	2.38	12	15	15	0.5	3	10	8.5	3.33	39
69	RIDF projects	4435-01-101-97					500	500	0	0	2600	500	0	0
70	Special support scheme for farm sector- Debt relief commission	2401-00-104-86 (01)									5000	5000	38.65	1
71	Special support scheme for farm sector- Credit support	2401-00-104-86 (02)									1000	1000	61.4	6
		2401-00-104-86					5679	15679	12964.8	83				
72	Farmer's welfare programme	2401-00-109-79												
73	Restructuring of PSUs in agriculture sector	2401-10-190-93												
74	Innovative agricultural mechanisation (One time ACA)- Assistance for Agriculture dept	2401-00-113-84												
75	Assistance for Kerala Agricultural University (ACA)	2415-01-277-88												
76	Price stabilization fund	2415-01-101-94	15	15	0	0								

State Plan Schemes 67 to 76, 2008-09 to 2010-11

SI No	SCHEME NAME	Head of Acct	2008-09				2009-10				2010-11			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27
67	Assistance to Kerala State Warehousing Corporation for creating storage and warehousing facilities	2435-01-800-96												
68	World Trade Organisation (WTO) Cell (Sustainable agricultural trade security system)	2401-00-800-48	10	10	5.97	60	10	10	4.91	49	5	5	2.45	49
69	RIDF projects	4435-01-101-97	500	250	0	0	500	500	34.58	7	500	500	0	0
70	Special support scheme for farm sector- Debt relief commission	2401-00-104-86 (01)	5000	3320	2364.04	71	1603	1603	1600.22	100	1000	2500	2428.08	97
71	Special support scheme for farm sector- Credit support	2401-00-104-86 (02)	550	550	30.56	6								
		2401-00-104-86												
72	Farmer's welfare programme	2401-00-109-79	100	500	500	100	150	150	150.02	100	208	208	208	100
73	Restructuring of PSUs in agriculture sector	2401-10-190-93	15	15	15	100								
74	Innovative agricultural mechanisation (One time ACA)- Assistance for Agriculture dept	2401-00-113-84	100	100	100	100								
75	Assistance for Kerala Agricultural University (ACA)	2415-01-277-88	300	300	299.86	100								
76	Price stabilization fund	2415-01-101-94												

State Plan Schemes 67 to 76, 2011-12 to 2013-14

SI No	SCHEME NAME	Head of Acct	2011-12				2012-13				2013-14			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	28	29	30	31	32	33	34	35	36	37	38	39
67	Assistance to Kerala State Warehousing Corporation for creating storage and warehousing facilities	2435-01-800-96												
68	World Trade Organisation (WTO) Cell (Sustainable agricultural trade security system)	2401-00-800-48	5	5	4.27	85								
69	RIDF projects	4435-01-101-97	500	500	36.99	7	500	500	500.24	100	500	500	492.59	99
70	Special support scheme for farm sector- Debt relief commission	2401-00-104-86 (01)	800	800	800	100								
71	Special support scheme for farm sector- Credit support	2401-00-104-86 (02)												
		2401-00-104-86												
72	Farmer's welfare programme	2401-00-109-79	208	208	208	100								
73	Restructuring of PSUs in agriculture sector	2401-10-190-93												
74	Innovative agricultural mechanisation (One time ACA)- Assistance for Agriculture dept	2401-00-113-84												
75	Assistance for Kerala Agricultural University (ACA)	2415-01-277-88												
76	Price stabilization fund	2415-01-101-94												

State Plan Schemes 67 to 76, 2014-15 and total for 10 years

SI No	SCHEME NAME	Head of Acct	2014-15				Total for 10 years			
			BE	RE	Expr	%	BE	RE	Expr	%
1	2	3	40	41	42	43	44	45	46	47
67	Assistance to Kerala State Warehousing Corporation for creating storage and warehousing facilities	2435-01-800-96					25	25	25	100
68	World Trade Organisation (WTO) Cell (Sustainable agricultural trade security system)	2401-00-800-48					75	73.5	23.81	32
69	RIDF projects	4435-01-101-97	0	415.6	415.25	100	6100	4165.6	1479.65	36
70	Special support scheme for farm sector- Debt relief commission	2401-00-104-86 (01)					13403	13223	7230.99	55
71	Special support scheme for farm sector- Credit support	2401-00-104-86 (02)					1550	1550	91.96	6
		2401-00-104-86					5679	15679	12964.8	83
72	Farmer's welfare programme	2401-00-109-79					666	1066	1066.02	100
73	Restructuring of PSUs in agriculture sector	2401-10-190-93					15	15	15	100
74	Innovative agricultural mechanisation (One time ACA)- Assistance for Agriculture dept	2401-00-113-84					100	100	100	100
75	Assistance for Kerala Agricultural University (ACA)	2415-01-277-88					300	300	299.86	100
76	Price stabilization fund	2415-01-101-94					15	15	0	0

State Plan Schemes 77 to 89, 2005-06 to 2007-08

SI No	SCHEME NAME	Head of Acct	2005-06				2006-07				2007-08			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
77	Assistance to Paddico, Palakkad	2401-00-195-98									0	50	50	100
78	Food security project	2401-00-102-82												
79	Commodity safety net scheme	2401-00-800-34												
80	Cropping system research in Kerala	2401-00-102-81												
81	13th Finance Commission Award	2401-00-800-32												
82	Kerala State Warehousing corporation- share capital contribution	4408-02-190-99	75	50	0	0	50	50		0	25	25	25	100
83	Value Addition	2408-01-800-81												
		2435-01-800-94												
84	Farmers welfare fund board	2401-00-109-76												
85	Pilot scheme on income support	2401-00-800-26												
86	Integrated Agriculture Complex (One time ACA)	2401-00-109-75												
87	Kuttanad heritage project	2401-00-800-23												
88	Agri Malls (one time ACA)	4435-00-101-94												
89	Wayanad package	2401-00-800-27												

State Plan Schemes 77 to 89, 2008-09 to 2010-11

SI No	SCHEME NAME	Head of Acct	2008-09				2009-10				2010-11			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27
77	Assistance to Paddico, Palakkad	2401-00-195-98												
78	Food security project	2401-00-102-82					3600	3600	3592.29	100	2800	2665	2590.64	97
79	Commodity safety net scheme	2401-00-800-34					1000	1000	1019.33	102				
80	Cropping system research in Kerala	2401-00-102-81												
81	13th Finance Commission Award	2401-00-800-32												
82	Kerala State Warehousing corporation- share capital contribution	4408-02-190-99	50	50	50	100	50	50	50	100	50	50	0	0
83	Value Addition	2408-01-800-81												
		2435-01-800-94												
84	Farmers welfare fund board	2401-00-109-76												
85	Pilot scheme on income support	2401-00-800-26												
86	Integrated Agriculture Complex (One time ACA)	2401-00-109-75												
87	Kuttanad heritage project	2401-00-800-23												
88	Agri Malls (one time ACA)	4435-00-101-94												
89	Wayanad package	2401-00-800-27												

State Plan Schemes 77 to 89, 2011-12 to 2013-14

SI No	SCHEME NAME	Head of Acct	2011-12				2012-13				2013-14			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	28	29	30	31	32	33	34	35	36	37	38	39
77	Assistance to Paddico, Palakkad	2401-00-195-98												
78	Food security project	2401-00-102-82	2800	2636	2562.69	97								
79	Commodity safety net scheme	2401-00-800-34												
80	Cropping system research in Kerala	2401-00-102-81	200	200	200	100								
81	13th Finance Commission Award	2401-00-800-32	7500	7500	5506	73	7500	7500	5683.17	76	7500	5450	4916.55	90
82	Kerala State Warehousing corporation- share capital contribution	4408-02-190-99	50	50	50	100	50	50	50	100	50	50	0	0
83	Value Addition	2408-01-800-81									10	10	10	100
		2435-01-800-94					1500	1317	1111.11	84	340	340	180	53
84	Farmers welfare fund board	2401-00-109-76					250	175	0	0	250	125		0
85	Pilot scheme on income support	2401-00-800-26					400	320	0	0	500	250		0
86	Integrated Agriculture Complex (One time ACA)	2401-00-109-75									1000	500		0
87	Kuttanad heritage project	2401-00-800-23									500	250	100	40
88	Agri Malls (one time ACA)	4435-00-101-94												
89	Wayanad package	2401-00-800-27					2500	2500	2253.18	90	1900	1900	1500.27	79

State Plan Schemes 77 to 89, 2014-15 and total for 10 years

SI No	SCHEME NAME	Head of Acct	2014-15				Total for 10 years			
			BE	RE	Expr	%	BE	RE	Expr	%
1	2	3	40	41	42	43	44	45	46	47
77	Assistance to Paddico, Palakkad	2401-00-195-98					0	50	50	100
78	Food security project	2401-00-102-82					9200	8901	8745.62	98
79	Commodity safety net scheme	2401-00-800-34					1000	1000	1019.33	102
80	Cropping system research in Kerala	2401-00-102-81					200	200	200	100
81	13th Finance Commission Award	2401-00-800-32	7500	7500	7500	100	30000	27950	23605.72	84
82	Kerala State Warehousing corporation- share capital contribution	4408-02-190-99	50	50	0	0	500	475	225	47
83	Value Addition	2408-01-800-81					10	10	10	100
		2435-01-800-94	315	283.51	240	85	2155	1940.51	1531.11	79
84	Farmers welfare fund board	2401-00-109-76	25	25	0	0	525	325	0	0
85	Pilot scheme on income support	2401-00-800-26					900	570	0	0
86	Integrated Agriculture Complex (One time ACA)	2401-00-109-75		200.01	200	100	1000	700.01	200	29
87	Kuttanad heritage project	2401-00-800-23	500	45	0	0	1000	295	100	34
88	Agri Malls (one time ACA)	4435-00-101-94	500	375	0	0	500	375	0	0
89	Wayanad package	2401-00-800-27	1900	1805	856.81	47	6300	6205	4610.26	74

State Plan Schemes 90 to 94, 2005-06 to 2007-08

SI No	SCHEME NAME	Head of Acct	2005-06				2006-07				2007-08			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
90	Pilot Project for Keramrutham and Kerachakkara (KAU Neera Production)	2401-00-108-30												
91	Investment in Nadukkara Agro processing (Nadukkara Agro Industries Corporation Ltd)	4401-00-190-95	7	7	7	100								
93	School Bio Gas	2401-00-109-71												
94	Integrated Agri Garden scheme	2401-00-104-81												
	TOTAL		5433	5352.57	4651.29	87	15244	25001.46	19899.13	80	16269.24	14898.75	5932.09	40

State Plan Schemes 90 to 94, 2008-09 to 2010-11

SI No	SCHEME NAME	Head of Acct	2008-09				2009-10				2010-11			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27
90	Pilot Project for Keramrutham and Kerachakkara (KAU Neera Production)	2401-00-108-30												
91	Investment in Nadukkara Agro processing (Nadukkara Agro Industries Corporation Ltd)	4401-00-190-95												
93	School Bio Gas	2401-00-109-71												
94	Integrated Agri Garden scheme	2401-00-104-81												
	TOTAL		14320	19809.04	20004.35	101	19417	24698.6	23752.34	96	28322	30507.12	28817.15	94

State Plan Schemes 90 to 94, 2011-12 to 2013-14

SI No	SCHEME NAME	Head of Acct	2011-12				2012-13				2013-14			
			BE	RE	Accts	%	BE	RE	Accts	%	BE	RE	Accts	%
1	2	3	28	29	30	31	32	33	34	35	36	37	38	39
90	Pilot Project for Keramrutham and Kerachakkara (KAU Neera Production)	2401-00-108-30									0	45	45	100
91	Investment in Nadukkara Agro processing (Nadukkara Agro Industries Corporation Ltd)	4401-00-190-95												
93	School Bio Gas	2401-00-109-71												
94	Integrated Agri Garden scheme	2401-00-104-81												
	TOTAL		48523	49439.09	44847.12	91	68574	69898.36	64143.43	92	77866	66769.93	64039.64	96

State Plan Schemes 90 to 94, 2014-15 and Ten years total

SI No	SCHEME NAME	Head of Acct	2014-15				Ten years total (2005-06 to 2014-15)			
			BE	RE	Expr	%	BE	RE	Expr	%
1	2	3	40	41	42	43	44	45	46	47
90	Pilot Project for Keramrutham and Kerachakkara (KAU Neera Production)	2401-00-108-30	0	50	50	100	0	95	95	100
91	Investment in Nadukkara Agro processing (Nadukkara Agro Industries Corporation Ltd)	4401-00-190-95					7	7	7	100
93	School Bio Gas	2401-00-109-71	0	514.04	418.76	81	0	514.04	418.76	81
94	Integrated Agri Garden scheme	2401-00-104-81	0	259.89	259.88	100	0	259.89	259.88	100
	TOTAL		92452	97216.67	69429.71	71	386420.2	403591.6	345516.3	86

2. Centrally Sponsored Schemes- Head of account wise outlay and expenditure from 2005-06 to 2014-15

Rs. in Lakhs

SI No	Name of scheme	Head of Acct	2005-06						%
			BE		RE		Accounts		
			State	Central	State	Central	State	Central	
1	2	3	4	5	6	7	8	9	10
1	Production and distribution of hybrid coconut seedlings (50% CSS)	2401-00-108-96	18	18	18	18	15.06	15.07	84
2	Establishment of regional nurseries (50% CSS)	2401-00-108-42							
3	Control of bud root disease in Kozhikkode district (50% CSS)	2401-00-108-43	1.7	1.7	1.7	1.7	1.7	1.7	100
4	Integrated scheme of oil seeds, pulses, oil palms and maize (ISOPOM) (75% CSS)	2401-00-112-97	15	45	15	45	5	15	33
5	Macro management schemes (90%CSS)- Rice development	2401-00-800-61 (01)	260	2340	260	2340	147.09	1323.81	57
6	Macro management schemes (90% CSS)- Pepper development	2401-00-800-61 (02)	200	1800	200	1800	47.35	426.15	24
7	Macro management schemes (90% CSS)- Other spices (ginger & turmeric)	2401-00-800-61 (03)	100	900	100	900	0.03		0
8	Macro management schemes (90% CSS)- Cashew development	2401-00-800-61 (04)	50	450	50	450	37.35	336.15	75
9	Macro management schemes (90% CSS)- Vegetable development	2401-00-800-61 (05)	5	45	5	45	0.37	3.33	7

CSS- Schemes 1 to 9, 2006-07

BE- Budget Estimate, RE- Revised Estimate, %- % of Accounts against RE

SI No	Name of scheme	Head of Acct	2006-07						%
			BE		RE		Accounts		
			State	Central	State	Central	State	Central	
1	2	3	11	12	13	14	15	16	17
1	Production and distribution of hybrid coconut seedlings (50% CSS)	2401-00-108-96	10	10	10	10	7.95	7.95	80
2	Establishment of regional nurseries (50% CSS)	2401-00-108-42	37.5	37.5	37.5	37.5	31.11	31.11	83
3	Control of bud root disease in Kozhikkode district (50% CSS)	2401-00-108-43							
4	Integrated scheme of oil seeds, pulses, oil palms and maize (ISOPOM) (75% CSS)	2401-00-112-97	15	45	15	45	10.49	31.48	70
5	Macro management schemes (90% CSS)- Rice development	2401-00-800-61 (01)	121.35	1092.15	121.35	1092.15	72.14	649.3	59
6	Macro management schemes (90% CSS)- Pepper development	2401-00-800-61 (02)			0.28	2.47	0.18	1.64	66
7	Macro management schemes (90% CSS)- Other spices (ginger & turmeric)	2401-00-800-61 (03)					0.39	3.55	
8	Macro management schemes (90% CSS)- Cashew development	2401-00-800-61 (04)							
9	Macro management schemes (90% CSS)- Vegetable development	2401-00-800-61 (05)							

CSS- Schemes 1 to 9, 2007-08

SI No	Name of scheme	Head of Acct	2007-08						%
			BE		RE		Accounts		
			State	Central	State	Central	State	Central	
1	2	3	18	19	20	21	22	23	24
1	Production and distribution of hybrid coconut seedlings (50% CSS)	2401-00-108-96	10	10	10	10	8.69	8.69	87
2	Establishment of regional nurseries (50% CSS)	2401-00-108-42	37.5	37.5	37.5	37.5	25.64	25.65	68
3	Control of bud root disease in Kozhikkode district (50% CSS)	2401-00-108-43							
4	Integrated scheme of oil seeds, pulses, oil palms and maize (ISOPOM) (75% CSS)	2401-00-112-97	15	45	9	27	0	0	0
5	Macro management schemes (90%CSS)- Rice development	2401-00-800-61 (01)	110.5	994.5	110.5	994.5	99.91	899.17	90
6	Macro management schemes (90% CSS)- Pepper development	2401-00-800-61 (02)							
7	Macro management schemes (90% CSS)- Other spices (ginger & turmeric)	2401-00-800-61 (03)							
8	Macro management schemes (90% CSS)- Cashew development	2401-00-800-61 (04)							
9	Macro management schemes (90% CSS)- Vegetable development	2401-00-800-61 (05)							

CSS- Schemes 1 to 9, 2008-09

SI No	Name of scheme	Head of Acct	2008-09						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	25	26	27	28	29	30	31
1	Production and distribution of hybrid coconut seedlings (50% CSS)	2401-00-108-96	10	10	12.26	12.26	12.27	12.26	100
2	Establishment of regional nurseries (50% CSS)	2401-00-108-42	37.5	37.5	37.5	37.5	31.19	31.18	83
3	Control of bud root disease in Kozhikkode district (50% CSS)	2401-00-108-43							
4	Integrated scheme of oil seeds, pulses, oil palms and maize (ISOPOM) (75% CSS)	2401-00-112-97	2.5	7.5	2.5	7.5	0	0	0
5	Macro management schemes (90% CSS)- Rice development	2401-00-800-61 (01)	125	1125	125	1125	121.99	1097.87	98
6	Macro management schemes (90% CSS)- Pepper development	2401-00-800-61 (02)							
7	Macro management schemes (90% CSS)- Other spices (ginger & turmeric)	2401-00-800-61 (03)							
8	Macro management schemes (90% CSS)- Cashew development	2401-00-800-61 (04)							
9	Macro management schemes (90% CSS)- Vegetable development	2401-00-800-61 (05)							

CSS- Schemes 1 to 9, 2009-10

SI No	Name of scheme	Head of Acct	2009-10						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	32	33	34	35	36	37	38
1	Production and distribution of hybrid coconut seedlings (50% CSS)	2401-00-108-96	10	10	10	10	11.97	11.97	120
2	Establishment of regional nurseries (50% CSS)	2401-00-108-42	12.5	12.5	44.55	44.55	37.12	37.12	83
3	Control of bud root disease in Kozhikkode district (50% CSS)	2401-00-108-43							
4	Integrated scheme of oil seeds, pulses, oil palms and maize (ISOPOM) (75%CSS)	2401-00-112-97	2.5	7.5	20	60	20	60	100
5	Macro management schemes (90%CSS)- Rice development	2401-00-800-61 (01)	100	900	100	900	84.57	761.11	85
6	Macro management schemes (90%CSS)- Pepper development	2401-00-800-61 (02)							
7	Macro management schemes (90%CSS)- Other spices (ginger & turmeric)	2401-00-800-61 (03)							
8	Macro management schemes (90%CSS)- Cashew development	2401-00-800-61 (04)							
9	Macro management schemes (90%CSS)- Vegetable development	2401-00-800-61 (05)							

CSS- Schemes 1 to 9, 2010-11

SI No	Name of scheme	Head of Acct	2010-11						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	39	40	41	42	43	44	45
1	Production and distribution of hybrid coconut seedlings (50% CSS)	2401-00-108-96	10	10	10	10	9.97	9.97	100
2	Establishment of regional nurseries (50% CSS)	2401-00-108-42	12.5	12.5	35	35	34.15	34.15	98
3	Control of bud root disease in Kozhikkode district (50% CSS)	2401-00-108-43							
4	Integrated scheme of oil seeds, pulses, oil palms and maize (ISOPOM) (75%CSS)	2401-00-112-97	2.5	7.5	11.74	35.22	11.74	35.22	100
5	Macro management schemes (90%CSS)- Rice development	2401-00-800-61 (01)	100	900	70	630	67.47	607.19	96
6	Macro management schemes (90%CSS)- Pepper development	2401-00-800-61 (02)							
7	Macro management schemes (90%CSS)- Other spices (ginger & turmeric)	2401-00-800-61 (03)							
8	Macro management schemes (90%CSS)- Cashew development	2401-00-800-61 (04)							
9	Macro management schemes (90%CSS)- Vegetable development	2401-00-800-61 (05)							

CSS- Schemes 1 to 9, 2011-12

SI No	Name of scheme	Head of Acct	2011-12						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	46	47	48	49	50	51	52
1	Production and distribution of hybrid coconut seedlings (50% CSS)	2401-00-108-96	50	50	50	50	21.64	21.62	43
2	Establishment of regional nurseries (50% CSS)	2401-00-108-42	12.5	12.5	30	30	29.56	29.54	99
3	Control of bud root disease in Kozhikkode district (50% CSS)	2401-00-108-43							
4	Integrated scheme of oil seeds, pulses, oil palms and maize (ISOPOM) (75%CSS)	2401-00-112-97	2.5	7.5	2.5	7.5	2.5	7.5	100
5	Macro management schemes (90%CSS)- Rice development	2401-00-800-61 (01)	70	630	70	630	54.43	489.82	78
6	Macro management schemes (90%CSS)- Pepper development	2401-00-800-61 (02)							
7	Macro management schemes (90%CSS)- Other spices (ginger & turmeric)	2401-00-800-61 (03)							
8	Macro management schemes (90%CSS)- Cashew development	2401-00-800-61 (04)							
9	Macro management schemes (90%CSS)- Vegetable development	2401-00-800-61 (05)							

CSS- Schemes 1 to 9, 2012-13

SI No	Name of scheme	Head of Acct	2012-13						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	53	54	55	56	57	58	59
1	Production and distribution of hybrid coconut seedlings (50% CSS)	2401-00-108-96	60	60	60	60	52.42	52.41	87
2	Establishment of regional nurseries (50% CSS)	2401-00-108-42							
3	Control of bud root disease in Kozhikkode district (50% CSS)	2401-00-108-43							
4	Integrated scheme of oil seeds, pulses, oil palms and maize (ISOPOM) (75%CSS)	2401-00-112-97							
5	Macro management schemes (90%CSS)- Rice development	2401-00-800-61 (01)	70	630	70	630	51.31	461.79	73
6	Macro management schemes (90%CSS)- Pepper development	2401-00-800-61 (02)							
7	Macro management schemes (90%CSS)- Other spices (ginger & turmeric)	2401-00-800-61 (03)							
8	Macro management schemes (90%CSS)- Cashew development	2401-00-800-61 (04)							
9	Macro management schemes (90%CSS)- Vegetable development	2401-00-800-61 (05)							

CSS- Schemes 1 to 9, 2013-14

SI No	Name of scheme	Head of Acct	2013-14						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	60	61	62	63	64	65	66
1	Production and distribution of hybrid coconut seedlings (50% CSS)	2401-00-108-96	15	15	15	15	11.84	11.84	79
2	Establishment of regional nurseries (50% CSS)	2401-00-108-42	15	15	15	15	15	15	100
3	Control of bud root disease in Kozhikkode district (50% CSS)	2401-00-108-43							
4	Integrated scheme of oil seeds, pulses, oil palms and maize (ISOPOM) (75%CSS)	2401-00-112-97							
5	Macro management schemes (90%CSS)- Rice development	2401-00-800-61 (01)	60	540	40	360	0.42	3.78	1
6	Macro management schemes (90%CSS)- Pepper development	2401-00-800-61 (02)							
7	Macro management schemes (90%CSS)- Other spices (ginger & turmeric)	2401-00-800-61 (03)							
8	Macro management schemes (90%CSS)- Cashew development	2401-00-800-61 (04)							
9	Macro management schemes (90%CSS)- Vegetable development	2401-00-800-61 (05)							

CSS- Schemes 1 to 9, 2014-15

SI No	Name of scheme	Head of Acct	2014-15						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	67	68	69	70	71	72	73
1	Production and distribution of hybrid coconut seedlings (50% CSS)	2401-00-108-96	15	15	15	15	14.79	14.79	99
2	Establishment of regional nurseries (50% CSS)	2401-00-108-42	15	15	15	15	14.99	14.99	100
3	Control of bud root disease in Kozhikkode district (50% CSS)	2401-00-108-43							
4	Integrated scheme of oil seeds, pulses, oil palms and maize (ISOPOM) (75%CSS)	2401-00-112-97							
5	Macro management schemes (90%CSS)- Rice development	2401-00-800-61 (01)							
6	Macro management schemes (90%CSS)- Pepper development	2401-00-800-61 (02)							
7	Macro management schemes (90%CSS)- Other spices (ginger & turmeric)	2401-00-800-61 (03)							
8	Macro management schemes (90%CSS)- Cashew development	2401-00-800-61 (04)							
9	Macro management schemes (90%CSS)- Vegetable development	2401-00-800-61 (05)							

CSS- Schemes 10 to 19, 2005-06

SI No	Name of scheme	Head of Acct	2005-06						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	4	5	6	7	8	9	10
10	Macro management schemes (90%CSS)- Fruit development	2401-00-800-61 (06)	20	180	20	180	0.29	2.61	1
11	Macro management schemes (90%CSS)- Agricultural extension and training	2401-00-800-61 (07)	8	72	8	72	0.18	1.62	2
12	Macro management schemes (90%CSS)- Women in agriculture	2401-00-800-61 (08)	36.5	328.5	36.5	328.5	28.86	259.74	79
13	Macro management schemes (90%CSS)- Small farm mechanisation	2401-00-800-61 (12)							
14	Macro management schemes (90%CSS)- Watershed development (NWDPR)	2401-00-800-61 (13)	20	180	70	630	72.07	648.63	103
15	Macro management schemes (90%CSS)- Information technology	2401-00-800-61 (14)	40	360	40	360	10.35	93.15	26
16	Macro management schemes (90%CSS)- Agricultural marketing	2401-00-800-61 (15)	33	297	33	297	7.15	64.35	22
17	Macro management schemes (90%CSS)- Floriculture	2401-00-800-61 (17)	21	189	21	189	0.67	6.03	3
18	Macro management schemes (90%CSS)- Medicinal and aromatic plants	2401-00-800-61 (18)	5	45	5	45	0	0	0
19	Macro management schemes (90%CSS)- Concurrent monitoring and evaluation	2401-00-800-61 (19)	1.5	13.5	1.5	13.5	0	0	0

CSS- Schemes 10 to 19, 2006-07

SI No	Name of scheme	Head of Acct	2006-07						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
10	Macro management schemes (90%CSS)- Fruit development	2401-00-800-61 (06)							
11	Macro management schemes (90%CSS)- Agricultural extension and training	2401-00-800-61 (07)							
12	Macro management schemes (90%CSS)- Women in agriculture	2401-00-800-61 (08)	30	270	30	270	21.23	191.05	71
13	Macro management schemes (90%CSS)- Small farm mechanisation	2401-00-800-61 (12)	49.58		49.58	446.22	44.35	399.18	89
14	Macro management schemes (90%CSS)- Watershed development (NWDpra)	2401-00-800-61 (13)	129.15	1162.35	129.15	1162.35	142.68	1284.14	110
15	Macro management schemes (90%CSS)- Information technology	2401-00-800-61 (14)			5.42	48.78	5.42	48.78	100
16	Macro management schemes (90%CSS)- Agricultural marketing	2401-00-800-61 (15)							
17	Macro management schemes (90%CSS)- Floriculture	2401-00-800-61 (17)							
18	Macro management schemes (90%CSS)- Medicinal and aromatic plants	2401-00-800-61 (18)							
19	Macro management schemes (90%CSS)- Concurrent monitoring and evaluation	2401-00-800-61 (19)							

CSS- Schemes 10 to 19, 2007-08

SI No	Name of scheme	Head of Acct	2007-08						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
10	Macro management schemes (90%CSS)- Fruit development	2401-00-800-61 (06)							
11	Macro management schemes (90%CSS)- Agricultural extension and training	2401-00-800-61 (07)							
12	Macro management schemes (90%CSS)- Women in agriculture	2401-00-800-61 (08)	3.78	34.04	3.78	34.04	1.87	16.83	49
13	Macro management schemes (90%CSS)- Small farm mechanisation	2401-00-800-61 (12)	10	90	16	144	15.39	138.52	96
14	Macro management schemes (90%CSS)- Watershed development (NWDPRA)	2401-00-800-61 (13)	100	900	100	900	82.95	746.58	83
15	Macro management schemes (90%CSS)- Information technology	2401-00-800-61 (14)	1.2	10.8	1.2	10.8	3.68	33.08	306
16	Macro management schemes (90%CSS)- Agricultural marketing	2401-00-800-61 (15)							
17	Macro management schemes (90%CSS)- Floriculture	2401-00-800-61 (17)							
18	Macro management schemes (90%CSS)- Medicinal and aromatic plants	2401-00-800-61 (18)							
19	Macro management schemes (90%CSS)- Concurrent monitoring and evaluation	2401-00-800-61 (19)							

CSS- Schemes 10 to 19, 2008-09

SI No	Name of scheme	Head of Acct	2008-09						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
10	Macro management schemes (90%CSS)- Fruit development	2401-00-800-61 (06)							
11	Macro management schemes (90%CSS)- Agricultural extension and training	2401-00-800-61 (07)							
12	Macro management schemes (90%CSS)- Women in agriculture	2401-00-800-61 (08)	5	45	5	45	3.92	35.26	78
13	Macro management schemes (90%CSS)- Small farm mechanisation	2401-00-800-61 (12)	30	270	30	270	28.11	253.03	94
14	Macro management schemes (90%CSS)- Watershed development (NWDPR)	2401-00-800-61 (13)	100	900	100	900	68.97	620.75	69
15	Macro management schemes (90%CSS)- Information technology	2401-00-800-61 (14)							
16	Macro management schemes (90%CSS)- Agricultural marketing	2401-00-800-61 (15)							
17	Macro management schemes (90%CSS)- Floriculture	2401-00-800-61 (17)							
18	Macro management schemes (90%CSS)- Medicinal and aromatic plants	2401-00-800-61 (18)							
19	Macro management schemes (90%CSS)- Concurrent monitoring and evaluation	2401-00-800-61 (19)							

CSS- Schemes 10 to 19, 2009-10

SI No	Name of scheme	Head of Acct	2009-10						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
10	Macro management schemes (90%CSS)- Fruit development	2401-00-800-61 (06)							
11	Macro management schemes (90%CSS)- Agricultural extension and training	2401-00-800-61 (07)							
12	Macro management schemes (90%CSS)- Women in agriculture	2401-00-800-61 (08)							
13	Macro management schemes (90%CSS)- Small farm mechanisation	2401-00-800-61 (12)	10	90	10	90	9.92	89.27	99
14	Macro management schemes (90%CSS)- Watershed development (NWDpra)	2401-00-800-61 (13)	70	630	70	630	37.46	337.18	54
15	Macro management schemes (90%CSS)- Information technology	2401-00-800-61 (14)							
16	Macro management schemes (90%CSS)- Agricultural marketing	2401-00-800-61 (15)							
17	Macro management schemes (90%CSS)- Floriculture	2401-00-800-61 (17)							
18	Macro management schemes (90%CSS)- Medicinal and aromatic plants	2401-00-800-61 (18)							
19	Macro management schemes (90%CSS)- Concurrent monitoring and evaluation	2401-00-800-61 (19)							

CSS- Schemes 10 to 19, 2010-11

SI No	Name of scheme	Head of Acct	2010-11						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
10	Macro management schemes (90%CSS)- Fruit development	2401-00-800-61 (06)							
11	Macro management schemes (90%CSS)- Agricultural extension and training	2401-00-800-61 (07)							
12	Macro management schemes (90%CSS)- Women in agriculture	2401-00-800-61 (08)							
13	Macro management schemes (90%CSS)- Small farm mechanisation	2401-00-800-61 (12)	10	90	25.5	229.5	24.8	223.19	97
14	Macro management schemes (90%CSS)- Watershed development (NWDPR)	2401-00-800-61 (13)	70	630	54.7	492.3	39.82	358.41	73
15	Macro management schemes (90%CSS)- Information technology	2401-00-800-61 (14)							
16	Macro management schemes (90%CSS)- Agricultural marketing	2401-00-800-61 (15)							
17	Macro management schemes (90%CSS)- Floriculture	2401-00-800-61 (17)							
18	Macro management schemes (90%CSS)- Medicinal and aromatic plants	2401-00-800-61 (18)							
19	Macro management schemes (90%CSS)- Concurrent monitoring and evaluation	2401-00-800-61 (19)							

CSS- Schemes 10 to 19, 2011-2

SI No	Name of scheme	Head of Acct	2011-12						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
10	Macro management schemes (90%CSS)- Fruit development	2401-00-800-61 (06)							
11	Macro management schemes (90%CSS)- Agricultural extension and training	2401-00-800-61 (07)							
12	Macro management schemes (90%CSS)- Women in agriculture	2401-00-800-61 (08)							
13	Macro management schemes (90%CSS)- Small farm mechanisation	2401-00-800-61 (12)	20	180	20	180	19.15	172.34	96
14	Macro management schemes (90%CSS)- Watershed development (NWDpra)	2401-00-800-61 (13)	40	360	40	360	33.77	304.04	84
15	Macro management schemes (90%CSS)- Information technology	2401-00-800-61 (14)							
16	Macro management schemes (90%CSS)- Agricultural marketing	2401-00-800-61 (15)							
17	Macro management schemes (90%CSS)- Floriculture	2401-00-800-61 (17)							
18	Macro management schemes (90%CSS)- Medicinal and aromatic plants	2401-00-800-61 (18)							
19	Macro management schemes (90%CSS)- Concurrent monitoring and evaluation	2401-00-800-61 (19)							

CSS- Schemes 10 to 19, 2012-13

SI No	Name of scheme	Head of Acct	2012-13						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
10	Macro management schemes (90%CSS)- Fruit development	2401-00-800-61 (06)							
11	Macro management schemes (90%CSS)- Agricultural extension and training	2401-00-800-61 (07)							
12	Macro management schemes (90%CSS)- Women in agriculture	2401-00-800-61 (08)							
13	Macro management schemes (90%CSS)- Small farm mechanisation	2401-00-800-61 (12)	20	180	20	180	14.95	134.55	75
14	Macro management schemes (90%CSS)- Watershed development (NWDPR)	2401-00-800-61 (13)	40	360	40	360	45.99	413.92	115
15	Macro management schemes (90%CSS)- Information technology	2401-00-800-61 (14)							
16	Macro management schemes (90%CSS)- Agricultural marketing	2401-00-800-61 (15)							
17	Macro management schemes (90%CSS)- Floriculture	2401-00-800-61 (17)							
18	Macro management schemes (90%CSS)- Medicinal and aromatic plants	2401-00-800-61 (18)							
19	Macro management schemes (90%CSS)- Concurrent monitoring and evaluation	2401-00-800-61 (19)							

CSS- Schemes 10 to 19, 2013-14

SI No	Name of scheme	Head of Acct	2013-14						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
10	Macro management schemes (90%CSS)- Fruit development	2401-00-800-61 (06)							
11	Macro management schemes (90%CSS)- Agricultural extension and training	2401-00-800-61 (07)							
12	Macro management schemes (90%CSS)- Women in agriculture	2401-00-800-61 (08)							
13	Macro management schemes (90%CSS)- Small farm mechanisation	2401-00-800-61 (12)	15	135	15	135	0	0	0
14	Macro management schemes (90%CSS)- Watershed development (NWDpra)	2401-00-800-61 (13)	60	540	60	540	0.49	4.41	1
15	Macro management schemes (90%CSS)- Information technology	2401-00-800-61 (14)							
16	Macro management schemes (90%CSS)- Agricultural marketing	2401-00-800-61 (15)							
17	Macro management schemes (90%CSS)- Floriculture	2401-00-800-61 (17)							
18	Macro management schemes (90%CSS)- Medicinal and aromatic plants	2401-00-800-61 (18)							
19	Macro management schemes (90%CSS)- Concurrent monitoring and evaluation	2401-00-800-61 (19)							

CSS- Schemes 10 to 19, 2014-15 (Macro management schemes implemented up to 2013-14 only)

SI No	Name of scheme	Head of Acct	2014-15						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
10	Macro management schemes (90%CSS)- Fruit development	2401-00-800-61 (06)							
11	Macro management schemes (90%CSS)- Agricultural extension and training	2401-00-800-61 (07)							
12	Macro management schemes (90%CSS)- Women in agriculture	2401-00-800-61 (08)							
13	Macro management schemes (90%CSS)- Small farm mechanisation	2401-00-800-61 (12)							
14	Macro management schemes (90%CSS)- Watershed development (NWDPR)	2401-00-800-61 (13)							
15	Macro management schemes (90%CSS)- Information technology	2401-00-800-61 (14)							
16	Macro management schemes (90%CSS)- Agricultural marketing	2401-00-800-61 (15)							
17	Macro management schemes (90%CSS)- Floriculture	2401-00-800-61 (17)							
18	Macro management schemes (90%CSS)- Medicinal and aromatic plants	2401-00-800-61 (18)							
19	Macro management schemes (90%CSS)- Concurrent monitoring and evaluation	2401-00-800-61 (19)							

CSS- Schemes 20 to 28, 2005-06

SI No	Name of scheme	Head of Acct	2005-06						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	4	5	6	7	8	9	10
20	Macro management schemes (90%CSS)- Control of yellowing in Arecanut (75% CSS)	2401-00-800-61 (20)	0	219	0	219	0	218.98	100
21	Macro management schemes (90%CSS)- One time ACA for the uplift of Urban/ Rural farmers through the devpt of floriculture/ medicinal plants and intercrops/ mixed crops	2401-00-800-61 (21)			50	450	48.86	439.74	98
22	Macro management schemes (90%CSS)- Support to State extension programme for extension reforms	2401-00-800-61 (22)							
23	Macro management schemes (90%CSS)- Balanced and integrated use of fertilizers	2401-00-800-61 (23)							
24	Macro management schemes (90%CSS)- Integrated cereal devpt programme in coarse cereal based cropping system	2401-00-800-61 (24)							
25	Micro irrigation (90% CSS)	2401-00-800-45							
26	Women in agriculture (100% CSS)	2401-00-800-73		15		15		4.97	33
27	Establishment of bio control labs (100% CSS)	2401-00-107-80		70		35		0	0
		2401-00-800-38							
28	Agrisnet (100% CSS)	2401-00-109-82							

CSS- Schemes 20 to 28, 2006-07

SI No	Name of scheme	Head of Acct	2006-07						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
20	Macro management schemes (90%CSS)- Control of yellowing in Arecanut (75% CSS)	2401-00-800-61 (20)	200	600	80	720	0	0	0
21	Macro management schemes (90%CSS)- One time ACA for the uplift of Urban/ Rural farmers through the devpt of floriculture/ medicinal plants and intercrops/ mixed crops	2401-00-800-61 (21)							
22	Macro management schemes (90%CSS)- Support to State extension programme for extension reforms	2401-00-800-61 (22)	20	180	20	180	0.46	4.11	2
23	Macro management schemes (90%CSS)- Balanced and integrated use of fertilizers	2401-00-800-61 (23)	28	252	28	252	35.83	322.43	128
24	Macro management schemes (90%CSS)- Integrated cereal devpt programme in coarse cereal based cropping system	2401-00-800-61 (24)	20.15	181.35	20.15	181.35	4.52	40.7	22
25	Micro irrigation (90% CSS)	2401-00-800-45	50	450	80	720	35.73	31.63	8
26	Women in agriculture (100% CSS)	2401-00-800-73							
27	Establishment of bio control labs (100% CSS)	2401-00-107-80		10		0		0	0
		2401-00-800-38							
28	Agrisnet (100% CSS)	2401-00-109-82		1000		1000		20.55	2

CSS- Schemes 20 to 28, 2007-08

SI No	Name of scheme	Head of Acct	2007-08						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
20	Macro management schemes (90%CSS)- Control of yellowing in Arecanut (75% CSS)	2401-00-800-61 (20)							
21	Macro management schemes (90%CSS)- One time ACA for the uplift of Urban/ Rural farmers through the devpt of floriculture/ medicinal plants and intercrops/ mixed crops	2401-00-800-61 (21)							
22	Macro management schemes (90%CSS)- Support to State extension programme for extension reforms	2401-00-800-61 (22)	10	90	10	90	6.25	56.28	63
23	Macro management schemes (90%CSS)- Balanced and integrated use of fertilizers	2401-00-800-61 (23)	8.8	79.2	8.8	79.2	3.07	27.61	35
24	Macro management schemes (90%CSS)- Integrated cereal devpt programme in coarse cereal based cropping system	2401-00-800-61 (24)							
25	Micro irrigation (90% CSS)	2401-00-800-45	20	180	26	234	25.17	226.54	97
26	Women in agriculture (100% CSS)	2401-00-800-73							
27	Establishment of bio control labs (100% CSS)	2401-00-107-80							
		2401-00-800-38							
28	Agrisnet (100% CSS)	2401-00-109-82							

CSS- Schemes 20 to 28, 2008-09

SI No	Name of scheme	Head of Acct	2008-09						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
20	Macro management schemes (90%CSS)- Control of yellowing in Arecanut (75% CSS)	2401-00-800-61 (20)							
21	Macro management schemes (90%CSS)- One time ACA for the uplift of Urban/ Rural farmers through the devpt of floriculture/ medicinal plants and intercrops/ mixed crops	2401-00-800-61 (21)							
22	Macro management schemes (90%CSS)- Support to State extension programme for extension reforms	2401-00-800-61 (22)	50	450	30	270	11.84	106.6	39
23	Macro management schemes (90%CSS)- Balanced and integrated use of fertilizers	2401-00-800-61 (23)	20	180	15	135	9.14	82.29	61
24	Macro management schemes (90%CSS)- Integrated cereal devpt programme in coarse cereal based cropping system	2401-00-800-61 (24)							
25	Micro irrigation (90% CSS)	2401-00-800-45	20	180	20	180	1.16	10.39	6
26	Women in agriculture (100% CSS)	2401-00-800-73							
27	Establishment of bio control labs (100% CSS)	2401-00-107-80							
		2401-00-800-38		15		10		0	0
28	Agrisnet (100% CSS)	2401-00-109-82							

CSS- Schemes 20 to 28, 2009-10

SI No	Name of scheme	Head of Acct	2009-10						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
20	Macro management schemes (90%CSS)- Control of yellowing in Arecanut (75% CSS)	2401-00-800-61 (20)							
21	Macro management schemes (90%CSS)- One time ACA for the uplift of Urban/ Rural farmers through the devpt of floriculture/ medicinal plants and intercrops/ mixed crops	2401-00-800-61 (21)							
22	Macro management schemes (90%CSS)- Support to State extension programme for extension reforms	2401-00-800-61 (22)							
23	Macro management schemes (90%CSS)- Balanced and integrated use of fertilizers	2401-00-800-61 (23)							
24	Macro management schemes (90%CSS)- Integrated cereal devpt programme in coarse cereal based cropping system	2401-00-800-61 (24)							
25	Micro irrigation (90% CSS)	2401-00-800-45			1	0	0	0	0
26	Women in agriculture (100% CSS)	2401-00-800-73							
27	Establishment of bio control labs (100% CSS)	2401-00-107-80							
		2401-00-800-38							
28	Agrisnet (100% CSS)	2401-00-109-82							

Note: Schemes 20 to 28 have no budget provision from 2010-11 to 2014-15

CSS- Schemes 29 to 37, 2005-06

SI No	Name of scheme	Head of Acct	2005-06						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	4	5	6	7	8	9	10
29	Other 90% CSS- Support to State extension programme for extension reforms	2401-00-800-35 (01)							
30	Other 90% CSS- Micro irrigation	2401-00-800-35 (02)							
31	NeGP- Agriculture (by SDG) (90% CSS)	2401-00-800-22							
32	Seed infrastructure (100% CSS)	2401-00-103-85							
33	National project on organic farming (100% CSS)	2401-00-105-84							
34	National project on biogas development (100% CSS)	2810-00-105-99							
		2810-01-101-99		100		100		80.19	80
35	Promotion and strengthening of agricultural mechanisation (100% CSS)	2401-00-113-85							
36	CDB scheme for integrated farming in coconut holdings (100% CSS)	2401-00-108-54		6000		6000		784.38	13
37	Human Resources Development in Horticulture (100% CSS)	2401-00-800-53		2		2			0

CSS- Schemes 29 to 37, 2006-07

SI No	Name of scheme	Head of Acct	2006-07						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
29	Other 90% CSS- Support to State extension programme for extension reforms	2401-00-800-35 (01)							
30	Other 90% CSS- Micro irrigation	2401-00-800-35 (02)							
31	NeGP- Agriculture (by SDG) (90% CSS)	2401-00-800-22							
32	Seed infrastructure (100% CSS)	2401-00-103-85		100		100		0	0
33	National project on organic farming (100% CSS)	2401-00-105-84		200		200		62.51	31
34	National project on biogas development (100% CSS)	2810-00-105-99							
		2810-01-101-99		100		100		105.75	106
35	Promotion and strengthening of agricultural mechanisation (100% CSS)	2401-00-113-85		10		16.72		16.72	100
36	CDB scheme for integrated farming in coconut holdings (100% CSS)	2401-00-108-54		2506.55		2506.55		650.3	26
37	Human Resources Development in Horticulture (100% CSS)	2401-00-800-53							

CSS- Schemes 29 to 37, 2007-08

SI No	Name of scheme	Head of Acct	2007-08						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
29	Other 90% CSS- Support to State extension programme for extension reforms	2401-00-800-35 (01)							
30	Other 90% CSS- Micro irrigation	2401-00-800-35 (02)							
31	NeGP- Agriculture (by SDG) (90% CSS)	2401-00-800-22							
32	Seed infrastructure (100% CSS)	2401-00-103-85		50		30		0	0
33	National project on organic farming (100% CSS)	2401-00-105-84		10		10		0	0
34	National project on biogas development (100% CSS)	2810-00-105-99							
		2810-01-101-99		100		100	0	117.17	117
35	Promotion and strengthening of agricultural mechanisation (100% CSS)	2401-00-113-85		10		6	0	0	0
36	CDB scheme for integrated farming in coconut holdings (100% CSS)	2401-00-108-54		2500		1750	0	967.2	55
37	Human Resources Development in Horticulture (100% CSS)	2401-00-800-53		1		1	0	1	100

CSS- Schemes 29 to 37, 2008-09

SI No	Name of scheme	Head of Acct	2008-09						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
29	Other 90% CSS- Support to State extension programme for extension reforms	2401-00-800-35 (01)							
30	Other 90% CSS- Micro irrigation	2401-00-800-35 (02)							
31	NeGP- Agriculture (by SDG) (90% CSS)	2401-00-800-22							
32	Seed infrastructure (100% CSS)	2401-00-103-85				10.62		10.62	100
33	National project on organic farming (100% CSS)	2401-00-105-84		10		10		10	100
34	National project on biogas development (100% CSS)	2810-00-105-99							
		2810-01-101-99		100		100		106.03	106
35	Promotion and strengthening of agricultural mechanisation (100% CSS)	2401-00-113-85		10		10		8.99	90
36	CDB scheme for integrated farming in coconut holdings (100% CSS)	2401-00-108-54		2500		1500		273.96	18
37	Human Resources Development in Horticulture (100% CSS)	2401-00-800-53							

CSS- Schemes 29 to 37, 2009-10

SI No	Name of scheme	Head of Acct	2009-10						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
29	Other 90% CSS- Support to State extension programme for extension reforms	2401-00-800-35 (01)	50		50		50	0	100
30	Other 90% CSS- Micro irrigation	2401-00-800-35 (02)	1		1		1	0	100
31	NeGP- Agriculture (by SDG) (90% CSS)	2401-00-800-22							
32	Seed infrastructure (100% CSS)	2401-00-103-85							
33	National project on organic farming (100% CSS)	2401-00-105-84		10		10		10	100
34	National project on biogas development (100% CSS)	2810-00-105-99							
		2810-01-101-99		120		120		130.75	109
35	Promotion and strengthening of agricultural mechanisation (100% CSS)	2401-00-113-85		10		10		0	0
36	CDB scheme for integrated farming in coconut holdings (100% CSS)	2401-00-108-54		400		433.22		430.5	99
37	Human Resources Development in Horticulture (100% CSS)	2401-00-800-53							

CSS- Schemes 29 to 37, 2010-11

SI No	Name of scheme	Head of Acct	2010-11						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
29	Other 90% CSS- Support to State extension programme for extension reforms	2401-00-800-35 (01)	50		50		50	0	100
30	Other 90% CSS- Micro irrigation	2401-00-800-35 (02)	1		1		1	0	100
31	NeGP- Agriculture (by SDG) (90% CSS)	2401-00-800-22							
32	Seed infrastructure (100% CSS)	2401-00-103-85							
33	National project on organic farming (100% CSS)	2401-00-105-84		50		50		30.72	61
34	National project on biogas development (100% CSS)	2810-00-105-99		120		120		125.39	104
		2810-01-101-99		120				0	0
35	Promotion and strengthening of agricultural mechanisation (100% CSS)	2401-00-113-85		20		10		9.89	99
36	CDB scheme for integrated farming in coconut holdings (100% CSS)	2401-00-108-54		400		540		474.8	88
37	Human Resources Development in Horticulture (100% CSS)	2401-00-800-53							

CSS- Schemes 29 to 37, 2011-12

SI No	Name of scheme	Head of Acct	2011-12						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
29	Other 90% CSS- Support to State extension programme for extension reforms	2401-00-800-35 (01)	150		150		111.17	0	74
30	Other 90% CSS- Micro irrigation	2401-00-800-35 (02)	1		40.2		39.43	0	98
31	NeGP- Agriculture (by SDG) (90% CSS)	2401-00-800-22							
32	Seed infrastructure (100% CSS)	2401-00-103-85							
33	National project on organic farming (100% CSS)	2401-00-105-84		50		50		0	0
34	National project on biogas development (100% CSS)	2810-00-105-99		250		363		365.55	101
		2810-01-101-99							
35	Promotion and strengthening of agricultural mechanisation (100% CSS)	2401-00-113-85		20		20		0	0
36	CDB scheme for integrated farming in coconut holdings (100% CSS)	2401-00-108-54		500		500		264.23	53
37	Human Resources Development in Horticulture (100% CSS)	2401-00-800-53							

CSS- Schemes 29 to 37, 2012-13

SI No	Name of scheme	Head of Acct	2012-13						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
29	Other 90% CSS- Support to State extension programme for extension reforms	2401-00-800-35 (01)							
30	Other 90% CSS- Micro irrigation	2401-00-800-35 (02)	110		110		99.02		90
31	NeGP- Agriculture (by SDG) (90% CSS)	2401-00-800-22							
32	Seed infrastructure (100% CSS)	2401-00-103-85							
33	National project on organic farming (100% CSS)	2401-00-105-84							
34	National project on biogas development (100% CSS)	2810-00-105-99		300		300		250.04	83
		2810-01-101-99							
35	Promotion and strengthening of agricultural mechanisation (100% CSS)	2401-00-113-85		20		20		20.02	100
36	CDB scheme for integrated farming in coconut holdings (100% CSS)	2401-00-108-54		500		450		492.4	109
37	Human Resources Development in Horticulture (100% CSS)	2401-00-800-53							

CSS- Schemes 29 to 37, 2013-14

SI No	Name of scheme	Head of Acct	2013-14						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
29	Other 90% CSS- Support to State extension programme for extension reforms	2401-00-800-35 (01)							
30	Other 90% CSS- Micro irrigation	2401-00-800-35 (02)	100		100		33.06		33
31	NeGP- Agriculture (by SDG) (90% CSS)	2401-00-800-22	27.74	249.68	27.74	249.68	27.71	249.38	100
32	Seed infrastructure (100% CSS)	2401-00-103-85							
33	National project on organic farming (100% CSS)	2401-00-105-84							
34	National project on biogas development (100% CSS)	2810-00-105-99		350		350		206.18	59
		2810-01-101-99							
35	Promotion and strengthening of agricultural mechanisation (100% CSS)	2401-00-113-85							
36	CDB scheme for integrated farming in coconut holdings (100% CSS)	2401-00-108-54		600		600		519.47	87
37	Human Resources Development in Horticulture (100% CSS)	2401-00-800-53							

CSS- Schemes 29 to 37, 2014-15

SI No	Name of scheme	Head of Acct	2014-15						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
29	Other 90% CSS- Support to State extension programme for extension reforms	2401-00-800-35 (01)							
30	Other 90% CSS- Micro irrigation	2401-00-800-35 (02)			100		97.5		98
31	NeGP- Agriculture (by SDG) (90% CSS)	2401-00-800-22							
32	Seed infrastructure (100% CSS)	2401-00-103-85							
33	National project on organic farming (100% CSS)	2401-00-105-84							
34	National project on biogas development (100% CSS)	2810-00-105-99		350		350		213.01	61
		2810-01-101-99							
35	Promotion and strengthening of agricultural mechanisation (100% CSS)	2401-00-113-85							
36	CDB scheme for integrated farming in coconut holdings (100% CSS)	2401-00-108-54		420		420		223.62	53
37	Human Resources Development in Horticulture (100% CSS)	2401-00-800-53							

CSS- Schemes 38 to 44, 2005-06

SI No	Name of scheme	Head of Acct	2005-06						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	4	5	6	7	8	9	10
38	Seed replacement scheme under special package programme (100% CSS)	2401-00-103-81							
39	Farmers counseling centres (100% CSS)	2401-00-800-44							
40	Establishment of pesticide testing lab (100% CSS)	2401-00-800-39							
41	Development and strengthening of infrastructure facilities for production and distribution of quality seeds (100% CSS)	2401-00-103-80							
42	Post harvest technology and management (100% CSS)	2401-00-109-77							
43	Sub mission on agricultural mechanisation (100% CSS)	2401-00-113-81							
44	Horticulture Mission (100% CSS)	2401-00-119-88							
	TOTAL		834.7	13670.7	934.7	14535.7	422.38	4725.6	33

CSS- Schemes 38 to 44, 2006-07

SI No	Name of scheme	Head of Acct	2006-07						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
38	Seed replacement scheme under special package programme (100% CSS)	2401-00-103-81							
39	Farmers counseling centres (100% CSS)	2401-00-800-44							
40	Establishment of pesticide testing lab (100% CSS)	2401-00-800-39							
41	Development and strengthening of infrastructure facilities for production and distribution of quality seeds (100% CSS)	2401-00-103-80							
42	Post harvest technology and management (100% CSS)	2401-00-109-77							
43	Sub mission on agricultural mechanisation (100% CSS)	2401-00-113-81							
44	Horticulture Mission (100% CSS)	2401-00-119-88				991.25		437.53	44
	TOTAL		710.73	8206.9	626.43	10082.34	412.48	4340.41	44

CSS- Schemes 38 to 44, 2007-08

SI No	Name of scheme	Head of Acct	2007-08						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
38	Seed replacement scheme under special package programme (100% CSS)	2401-00-103-81		192		192	0	191.91	100
39	Farmers counseling centres (100% CSS)	2401-00-800-44		50		50	0	49.86	100
40	Establishment of pesticide testing lab (100% CSS)	2401-00-800-39							
41	Development and strengthening of infrastructure facilities for production and distribution of quality seeds (100% CSS)	2401-00-103-80							
42	Post harvest technology and management (100% CSS)	2401-00-109-77							
43	Sub mission on agricultural mechanisation (100% CSS)	2401-00-113-81							
44	Horticulture Mission (100% CSS)	2401-00-119-88							
	TOTAL		326.78	5384.04	332.78	4700.04	272.62	3506.09	75

CSS- Schemes 38 to 44, 2008-09

SI No	Name of scheme	Head of Acct	2008-09						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
38	Seed replacement scheme under special package programme (100% CSS)	2401-00-103-81							
39	Farmers counseling centres (100% CSS)	2401-00-800-44		50		50		0	0
40	Establishment of pesticide testing lab (100% CSS)	2401-00-800-39		18.97		11.38	0	0	0
41	Development and strengthening of infrastructure facilities for production and distribution of quality seeds (100% CSS)	2401-00-103-80							
42	Post harvest technology and management (100% CSS)	2401-00-109-77							
43	Sub mission on agricultural mechanisation (100% CSS)	2401-00-113-81							
44	Horticulture Mission (100% CSS)	2401-00-119-88							
	TOTAL		400	5908.97	377.26	4684.26	288.59	2659.23	58

CSS- Schemes 38 to 44, 2009-10

SI No	Name of scheme	Head of Acct	2009-10						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
38	Seed replacement scheme under special package programme (100% CSS)	2401-00-103-81							
39	Farmers counseling centres (100% CSS)	2401-00-800-44							
40	Establishment of pesticide testing lab (100% CSS)	2401-00-800-39							
41	Development and strengthening of infrastructure facilities for production and distribution of quality seeds (100% CSS)	2401-00-103-80				606		606	100
42	Post harvest technology and management (100% CSS)	2401-00-109-77							
43	Sub mission on agricultural mechanisation (100% CSS)	2401-00-113-81							
44	Horticulture Mission (100% CSS)	2401-00-119-88							
	TOTAL		256	2190	306.55	2913.77	252.04	2473.9	85

CSS- Schemes 38 to 44, 2010-11

SI No	Name of scheme	Head of Acct	2010-11						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
38	Seed replacement scheme under special package programme (100% CSS)	2401-00-103-81							
39	Farmers counseling centres (100% CSS)	2401-00-800-44							
40	Establishment of pesticide testing lab (100% CSS)	2401-00-800-39							
41	Development and strengthening of infrastructure facilities for production and distribution of quality seeds (100% CSS)	2401-00-103-80		100		100		0	0
42	Post harvest technology and management (100% CSS)	2401-00-109-77							
43	Sub mission on agricultural mechanisation (100% CSS)	2401-00-113-81							
44	Horticulture Mission (100% CSS)	2401-00-119-88							
	TOTAL		256	2460	257.94	2252.02	238.95	1908.93	86

CSS- Schemes 38 to 44, 2011-12

SI No	Name of scheme	Head of Acct	2011-12						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
38	Seed replacement scheme under special package programme (100% CSS)	2401-00-103-81							
39	Farmers counseling centres (100% CSS)	2401-00-800-44							
40	Establishment of pesticide testing lab (100% CSS)	2401-00-800-39							
41	Development and strengthening of infrastructure facilities for production and distribution of quality seeds (100% CSS)	2401-00-103-80		10		10		0	0
42	Post harvest technology and management (100% CSS)	2401-00-109-77		14.05		14.05		0.03	0
43	Sub mission on agricultural mechanisation (100% CSS)	2401-00-113-81							
44	Horticulture Mission (100% CSS)	2401-00-119-88							
	TOTAL		346	2084.05	402.7	2214.55	311.65	1654.67	75

CSS- Schemes 38 to 44, 2012-13

SI No	Name of scheme	Head of Acct	2012-13						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
38	Seed replacement scheme under special package programme (100% CSS)	2401-00-103-81							
39	Farmers counseling centres (100% CSS)	2401-00-800-44							
40	Establishment of pesticide testing lab (100% CSS)	2401-00-800-39							
41	Development and strengthening of infrastructure facilities for production and distribution of quality seeds (100% CSS)	2401-00-103-80							
42	Post harvest technology and management (100% CSS)	2401-00-109-77		15		15		14.05	94
43	Sub mission on agricultural mechanisation (100% CSS)	2401-00-113-81							
44	Horticulture Mission (100% CSS)	2401-00-119-88							
	TOTAL		300	2065	300	2015	263.69	1839.18	91

CSS- Schemes 38 to 44, 2013-14

SI No	Name of scheme	Head of Acct	2013-14						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
38	Seed replacement scheme under special package programme (100% CSS)	2401-00-103-81							
39	Farmers counseling centres (100% CSS)	2401-00-800-44							
40	Establishment of pesticide testing lab (100% CSS)	2401-00-800-39							
41	Development and strengthening of infrastructure facilities for production and distribution of quality seeds (100% CSS)	2401-00-103-80							
42	Post harvest technology and management (100% CSS)	2401-00-109-77							
43	Sub mission on agricultural mechanisation (100% CSS)	2401-00-113-81		500		500		56.85	11
44	Horticulture Mission (100% CSS)	2401-00-119-88							
	TOTAL		292.74	2944.68	272.74	2764.68	88.52	1066.91	38

CSS- Schemes 38 to 44, 2014-15

SI No	Name of scheme	Head of Acct	2014-15						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3							
38	Seed replacement scheme under special package programme (100% CSS)	2401-00-103-81							
39	Farmers counseling centres (100% CSS)	2401-00-800-44							
40	Establishment of pesticide testing lab (100% CSS)	2401-00-800-39							
41	Development and strengthening of infrastructure facilities for production and distribution of quality seeds (100% CSS)	2401-00-103-80							
42	Post harvest technology and management (100% CSS)	2401-00-109-77							
43	Sub mission on agricultural mechanisation (100% CSS)	2401-00-113-81		1000		750		0	0
44	Horticulture Mission (100% CSS)	2401-00-119-88							
	TOTAL		30	1800	130	1550	127.28	466.41	35

New Centrally sponsored schemes implemented in 2014-15 (not in Budget 2014-15, but allocation obtained through additional authorization) Rs. in Lakhs

Sl No	Name of scheme	Scheme component	Head of Acct	RE		Expr		%
				State	Central	State	Central	
1	2	3	4	5	6	7	8	9
1	National Food Security Mission (NFSM)- Rice 100% CSS		2401-00-102-89 (01) General		193.13		193.13	100
			2401-00-789-99 (01) SCP		21.25		1.81	9
			2401-00-796-98 (01) TSP		2.38		0	0
2	Mission for Integrated Development of Horticulture (MIDH)	National Horticulture Mission (NHM) (85% CSS)	2401-00-789-96 SC		1000		250	25
			2401-00-796-95 ST		100		25	25
3	Sub Mission on Agricultural Extension (SAME)		2401-00-109-72 (01) General		1407.78		1407.77	100
			2401-00-789-97 (01) SC		158.18		158.18	100
			2401-00-796-96 (01) ST		15.82		15.82	100
4	Sub Mission on Agricultural Mechanisation (SMAM)		2401-00-113-81		1000		0	0
			2401-00-789-97 (02) SC		0		0	
			2401-00-796-96 (02) ST		0		0	
5	National Mission on Oil Seeds and Oil Palm (NMOOP)	Integrated Scheme on Oil Seeds, Oil Palm and Maize	2401-00-114-98 (03)		18.01		18	100
			2401-00-789-95 (03) SCP		4		4	100
			2401-00-796-94 (03) TSP		2		2	100
6	National Mission on Sustainable Agriculture (NMSA)	Soil Health Management	2401-00-104-79 (01)		0.01		0	0
		On farm Water Management	2401-00-104-79 (02) General		337.51		337.5	100
			2401-00-789-98 (03) SCP		37.5		37.5	100
		Rainfed area development	2401-00-104-79 (03) General		380		190	50
			2401-00-789-98 (01) SCP		80		40	50
			2401-00-796-97 (01) TSP		40		20	50
		Climate change and sustainable agriculture monitoring, modelling and networking (CCSAMMN)	2401-00-104-79 (03) General		0		0	0
			2401-00-789-98 (01) SCP		0		0	0
			2401-00-796-97 (01) TSP		0		0	0
		TOTAL		0	4797.57	0	2700.71	56

CSS- Scheme wise head wise Total Outlay and Expenditure for 10 years from 2005-06 to 2014-15

SI No	Name of scheme	Head of Acct	Total for 10 years						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	67	68	69	70	71	72	73
1	Production and distribution of hybrid coconut seedlings (50% CSS)	2401-00-108-96	208	208	210.26	210.26	166.6	166.57	79
2	Establishment of regional nurseries (50% CSS)	2401-00-108-42	180	180	252.05	252.05	218.76	218.74	87
3	Control of bud root disease in Kozhikkode district (50% CSS)	2401-00-108-43	1.7	1.7	1.7	1.7	1.7	1.7	100
4	Integrated scheme of oil seeds, pulses, oil palms and maize (ISOPOM) (75% CSS)	2401-00-112-97	55	165	75.74	227.22	49.73	149.2	66
5	Macro management schemes (90%CSS)- Rice development	2401-00-800-61 (01)	1016.85	9151.65	966.85	8701.65	699.33	6293.84	72
6	Macro management schemes (90% CSS)- Pepper development	2401-00-800-61 (02)	200	1800	200.28	1802.47	47.53	427.79	24
7	Macro management schemes (90% CSS)- Other spices (ginger & turmeric)	2401-00-800-61 (03)	100	900	100	900	0.42	3.55	0
8	Macro management schemes (90% CSS)- Cashew development	2401-00-800-61 (04)	50	450	50	450	37.35	336.15	75
9	Macro management schemes (90% CSS)- Vegetable development	2401-00-800-61 (05)	5	45	5	45	0.37	3.33	7

CSS- Schemes 10 to 19, Total for 10 years

SI No	Name of scheme	Head of Acct	Total for 10 years						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	67	68	69	70	71	72	73
10	Macro management schemes (90% CSS)- Fruit development	2401-00-800-61 (06)	20	180	20	180	0.29	2.61	1
11	Macro management schemes (90% CSS)- Agricultural extension and training	2401-00-800-61 (07)	8	72	8	72	0.18	1.62	2
12	Macro management schemes (90% CSS)- Women in agriculture	2401-00-800-61 (08)	75.28	677.54	75.28	677.54	55.88	502.88	74
13	Macro management schemes (90% CSS)- Small farm mechanisation	2401-00-800-61 (12)	164.58	1035	186.08	1674.72	156.67	1410.08	84
14	Macro management schemes (90% CSS)- Watershed development (NWDPR)	2401-00-800-61 (13)	629.15	5662.35	663.85	5974.65	524.2	4718.06	79
15	Macro management schemes (90% CSS)- Information technology	2401-00-800-61 (14)	41.2	370.8	46.62	419.58	19.45	175.01	42
16	Macro management schemes (90% CSS)- Agricultural marketing	2401-00-800-61 (15)	33	297	33	297	7.15	64.35	22
17	Macro management schemes (90% CSS)- Floriculture	2401-00-800-61 (17)	21	189	21	189	0.67	6.03	3
18	Macro management schemes (90% CSS)- Medicinal and aromatic plants	2401-00-800-61 (18)	5	45	5	45	0	0	0
19	Macro management schemes (90% CSS)- Concurrent monitoring and evaluation	2401-00-800-61 (19)	1.5	13.5	1.5	13.5	0	0	0

CSS- Schemes 20 to 28, Total for 10 years

SI No	Name of scheme	Head of Acct	Total for 10 years						%
			BE		RE		Accounts		
			State	Central	State	Central	State	Central	
1	2	3	67	68	69	70	71	72	73
20	Macro management schemes (90% CSS)- Control of yellowing in Arecanut (75% CSS)	2401-00-800-61 (20)	200	819	80	939	0	218.98	21
21	Macro management schemes (90% CSS)- One time ACA for the uplift of Urban/ Rural farmers through the devpt of floriculture/ medicinal plants and intercrops/ mixed crops	2401-00-800-61 (21)	0	0	50	450	48.86	439.74	98
22	Macro management schemes (90% CSS)- Support to State extension programme for extension reforms	2401-00-800-61 (22)	80	720	60	540	18.55	166.99	31
23	Macro management schemes (90% CSS)- Balanced and integrated use of fertilizers	2401-00-800-61 (23)	56.8	511.2	51.8	466.2	48.04	432.33	93
24	Macro management schemes (90% CSS)- Integrated cereal devpt programme in coarse cereal based cropping system	2401-00-800-61 (24)	20.15	181.35	20.15	181.35	4.52	40.7	22
25	Micro irrigation (90% CSS)	2401-00-800-45	90	810	127	1134	62.06	268.56	26
26	Women in agriculture (100% CSS)	2401-00-800-73	0	15	0	15	0	4.97	33
27	Establishment of bio control labs (100% CSS)	2401-00-107-80	0	80	0	35	0	0	0
		2401-00-800-38	0	15	0	10	0	0	0
28	Agrisnet (100% CSS)	2401-00-109-82	0	1000	0	1000	0	20.55	2

CSS- Schemes 29 to 37, Total for 10 years

SI No	Name of scheme	Head of Acct	Total for 10 years						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	67	68	69	70	71	72	73
29	Other 90% CSS- Support to State extension programme for extension reforms	2401-00-800-35 (01)	250	0	250	0	211.17	0	84
30	Other 90% CSS- Micro irrigation	2401-00-800-35 (02)	213	0	352.2	0	271.01	0	77
31	NeGP- Agriculture (by SDG) (90% CSS)	2401-00-800-22	27.74	249.68	27.74	249.68	27.71	249.38	100
32	Seed infrastructure (100% CSS)	2401-00-103-85	0	150	0	140.62	0	10.62	8
33	National project on organic farming (100% CSS)	2401-00-105-84	0	330	0	330	0	113.23	34
34	National project on biogas development (100% CSS)	2810-00-105-99	0	1370	0	1483	0	1160.17	78
		2810-01-101-99	0	640	0	520	0	539.89	104
35	Promotion and strengthening of agricultural mechanisation (100% CSS)	2401-00-113-85	0	100	0	92.72	0	55.62	60
36	CDB scheme for integrated farming in coconut holdings (100% CSS)	2401-00-108-54	0	16326.55	0	14699.77	0	5080.86	35
37	Human Resources Development in Horticulture (100% CSS)	2401-00-800-53	0	3	0	3	0	1	33

CSS- Schemes 38 to 44, Total for 10 years

SI No	Name of scheme	Head of Acct	Total for 10 years						
			BE		RE		Accounts		%
			State	Central	State	Central	State	Central	
1	2	3	67	68	69	70	71	72	73
38	Seed replacement scheme under special package programme (100% CSS)	2401-00-103-81	0	192	0	192	0	191.91	100
39	Farmers counseling centres (100% CSS)	2401-00-800-44	0	100	0	100	0	49.86	50
40	Establishment of pesticide testing lab (100% CSS)	2401-00-800-39	0	18.97	0	11.38	0	0	0
41	Development and strengthening of infrastructure facilities for production and distribution of quality seeds (100% CSS)	2401-00-103-80	0	110	0	716	0	606	85
42	Post harvest technology and management (100% CSS)	2401-00-109-77	0	29.05	0	29.05	0	14.08	48
43	Sub mission on agricultural mechanisation (100% CSS)	2401-00-113-81	0	1500	0	1250	0	56.85	5
44	Horticulture Mission (100% CSS)	2401-00-119-88	0	0	0	991.25	0	437.53	44
	TOTAL		3752.95	46714.34	3941.1	47712.36	2678.2	24641.33	53
	New Schemes in 2014-15		0	0	0	4797.57	0	2700.71	56
	Grand Total for 10 years		3752.95	46714.34	3941.1	52509.93	2678.2	27342.04	53

3. Land use pattern in Kerala from 2005-06 to 2014-15

Area in Hectares

Year	Total geographical area	Forest land	Land put to non-agricultural use	Barren & uncultivable land	Cultivable waste	Fallow other than current fallow	Current fallow	Other uncultivable land	Net area sown	Gross cropped area
2005-06	3886287	1081509	370322	26457	66133	45171	70166	94046	2132483	2985727
2006-07	3886287	1081509	358684	26125	90288	47144	81651	99455	2101431	2917541
2007-08	3886287	1081509	371558	25527	92764	45214	82953	97733	2089029	2761094
2008-09	3886287	1081509	376155	24931	96193	45955	67759	104830	2088955	2694943
2009-10	3886287	1081509	371906	22046	98014	45374	76945	111778	2078715	2668678
2010-11	3886287	1081509	384174	19573	91665	51943	76028	109888	2071507	2647461
2011-12	3886287	1081509	399924	17552	95437	57670	77056	117007	2040132	2661757
2012-13	3886287	1081509	402577	16354	96596	55835	76744	108563	2048109	2591734
2013-14	3886287	1081509	405826	13655	97069	57346	70976	108912	2050994	2616670
2014-15	3886287	1081509	419828	12952	100676	54741	65329	109071	2042881	2624624

4. Share of area under each land use category from 2005-06 to 2014-15

Year	Total geographical area	Forest land	Land put to non-agricultural use	Barren & uncultivable land	Cultivable waste	Fallow other than current fallow	Current fallow	Other uncultivable land	Net area sown
2005-06	100	27.8	9.5	0.7	1.7	1.2	1.8	2.4	54.9
2006-07	100	27.8	9.2	0.7	2.3	1.2	2.1	2.6	54.1
2007-08	100	27.8	9.6	0.7	2.4	1.2	2.1	2.5	53.8
2008-09	100	27.8	9.7	0.6	2.5	1.2	1.7	2.7	53.8
2009-10	100	27.8	9.6	0.6	2.5	1.2	2.0	2.9	53.5
2010-11	100	27.8	9.9	0.5	2.4	1.3	2.0	2.8	53.3
2011-12	100	27.8	10.3	0.5	2.5	1.5	2.0	3.0	52.5
2012-13	100	27.8	10.4	0.4	2.5	1.4	2.0	2.8	52.7
2013-14	100	27.8	10.4	0.4	2.5	1.5	1.8	2.8	52.8
2014-15	100	27.8	10.8	0.3	2.6	1.4	1.7	2.8	52.6

5. Land use pattern- rate of change in area over the previous year from 2005-06 to 2014-15

Year	Total geographical area	Forest land	Land put to non-agricultural use	Barren & uncultivable land	Cultivable waste	Fallow other than current fallow	Current fallow	Other uncultivable land	Net area sown	Gross cropped area
2005-06	0.0	0.0	4.1	-8.4	-5.6	10.4	2.2	9.7	-1.0	-0.4
2006-07	0.0	0.0	-3.1	-1.3	36.5	4.4	16.4	5.8	-1.5	-2.3
2007-08	0.0	0.0	3.6	-2.3	2.7	-4.1	1.6	-1.7	-0.6	-5.4
2008-09	0.0	0.0	1.2	-2.3	3.7	1.6	-18.3	7.3	0.0	-2.4
2009-10	0.0	0.0	-1.1	-11.6	1.9	-1.3	13.6	6.6	-0.5	-1.0
2010-11	0.0	0.0	3.3	-11.2	-6.5	14.5	-1.2	-1.7	-0.3	-0.8
2011-12	0.0	0.0	4.1	-10.3	4.1	11.0	1.4	6.5	-1.5	0.5
2012-13	0.0	0.0	0.7	-6.8	1.2	-3.2	-0.4	-7.2	0.4	-2.6
2013-14	0.0	0.0	0.8	-16.5	0.5	2.7	-7.5	0.3	0.1	1.0
2014-15	0.0	0.0	3.5	-5.1	3.7	-4.5	-8.0	0.1	-0.4	0.3

6. Area under major agricultural crops in Kerala from 2005-06 to 2014-15

Area in Hectares

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Paddy Autumn	98256	83859	77533	79381	77249	70498	68135	63232	51922	63981
Paddy Winter	155629	143724	105958	105122	107485	91556	92735	86751	100824	88990
Paddy Summer	21857	35946	45447	49762	49279	51133	47290	47294	46865	45188
Paddy Total	275742	263529	228938	234265	234013	213187	208160	197277	199611	198159
Jowar	2450	1827	3083	2306	2547	2208	280	148	150	173
Ragi	414	516	266	608	293	263	248	113	82	79
Sugarcane	1222	1161	2991	3392	2972	2845	2604	1742	2210	1517
Jack	94902	88358	85322	79288	78148	75189	90333	89702	90225	92203
Mango	87965	76709	69482	66754	63751	62200	75559	74462	77158	77301
Banana	61400	59143	59341	54739	51275	58671	59069	61011	62261	61936
Plantain	55222	53096	51367	50126	47802	49129	48747	48859	54512	56761
Pineapple	12775	12486	11262	10407	9827	10216	8932	8540	8002	8080
Papaya	18895	17693	17835	18080	16840	16156	16464	16197	16640	17999
Other fruits	10586	9468	10031	9903	10834	11130	12026	10938	10921	11721
Total fresh fruits	341745	316953	304640	289297	278477	282691	311130	309709	319749	326001
Cashew (dry fruit)	78285	70463	58381	53007	48972	43848	54052	52086	49105	45436
Total fruits	420030	387416	363021	342304	327449	326539	365182	361795	368854	371437
Green Chilly	1231	1415	1398	1601	1501	1393	1322	1337	1336	1584

Area under crops...

Area in Hectares

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Pepper	237998	216709	175679	153711	171489	172182	85335	84707	84065	85431
Ginger	12226	11082	8865	7421	5408	6088	6908	4505	4538	4800
Turmeric	3384	3917	3155	2782	2438	2391	2970	2628	2430	2470
Cardamom	41367	41362	39763	41588	41593	41242	41600	41600	39730	39730
Arecanut	108590	102078	99787	97492	99188	99384	104548	101775	100008	96686
Tamarind	18747	16876	13821	12889	12708	11924	14879	13572	13172	11240
Clove	937	1102	1252	1101	1206	1123	934	912	1018	1073
Nutmeg	10984	13494	14921	16187	15931	17545	18161	18462	19627	20627
Garlic	65	221	350	320	336	165	155	72	146	75
Tapioca	90539	87128	83990	87241	74925	72284	74498	69586	67589	75493
Sweet Potato	711	505	499	386	399	312	247	282	330	361
Drumstick	21138	19680	17698	17067	16917	16127	16452	15465	16356	17013
Groundnut	3299	2813	2911	1733	1340	1503	1712	784	710	480
Sesamum	600	732	533	576	608	519	197	260	265	262
Coconut	897833	872943	818812	787769	778618	770473	820867	798162	808647	793856
Cotton	2655	1300	1295	1152	1018	501	400	343	177	170
Betel Leaves	780	613	509	468	447	468	349	335	357	327
Tea	35043	35365	36131	36557	36845	36965	37028	30205	35010	30205
Coffee	84644	84571	84115	84696	84796	84931	85359	85359	85359	85359
Rubber	494400	502240	512045	517475	525408	534230	539565	539565	548225	549955
Cocoa	9570	10708	14404	15261	12113	12488	12764	13013	13257	13183

7. Rate of change in area under crops in Kerala over the previous year from 2005-06 to 2014-15

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Paddy Autumn	-6.7	-14.7	-7.5	2.4	-2.7	-8.7	-3.4	-7.2	-17.9	23.2
Paddy Winter	4.5	-7.6	-26.3	-0.8	2.2	-14.8	1.3	-6.5	16.2	-11.7
Paddy Summer	-38.8	64.5	26.4	9.5	-1.0	3.8	-7.5	0.0	-0.9	-3.6
Paddy Total	-4.9	-4.4	-13.1	2.3	-0.1	-8.9	-2.4	-5.2	1.2	-0.7
Jowar	-4.5	-25.4	68.7	-25.2	10.5	-13.3	-87.3	-47.1	1.4	15.3
Ragi	-70.1	24.6	-48.4	128.6	-51.8	-10.2	-5.7	-54.4	-27.4	-3.7
Sugarcane	-36.4	-5.0	157.6	13.4	-12.4	-4.3	-8.5	-33.1	26.9	-31.4
Jack	-2.7	-6.9	-3.4	-7.1	-1.4	-3.8	20.1	-0.7	0.6	2.2
Mango	-2.9	-12.8	-9.4	-3.9	-4.5	-2.4	21.5	-1.5	3.6	0.2
Banana	4.3	-3.7	0.3	-7.8	-6.3	14.4	0.7	3.3	2.0	-0.5
Plantain	1.1	-3.8	-3.3	-2.4	-4.6	2.8	-0.8	0.2	11.6	4.1
Pineapple	0.7	-2.3	-9.8	-7.6	-5.6	4.0	-12.6	-4.4	-6.3	1.0
Papaya	-2.1	-6.4	0.8	1.4	-6.9	-4.1	1.9	-1.6	2.7	8.2
Other fruits	-4.2	-10.6	5.9	-1.3	9.4	2.7	8.1	-9.0	-0.2	7.3
Total fresh fruits	-0.9	-7.3	-3.9	-5.0	-3.7	1.5	10.1	-0.5	3.2	2.0
Cashew (dry fruit)	-4.0	-10.0	-17.1	-9.2	-7.6	-10.5	23.3	-3.6	-5.7	-7.5
Total fruits	-1.5	-7.8	-6.3	-5.7	-4.3	-0.3	11.8	-0.9	2.0	0.7
Green Chilly	49.6	14.9	-1.2	14.5	-6.2	-7.2	-5.1	1.1	-0.1	18.6
Pepper	0.1	-8.9	-18.9	-12.5	11.6	0.4	-50.4	-0.7	-0.8	1.6
Ginger	22.4	-9.4	-20.0	-16.3	-27.1	12.6	13.5	-34.8	0.7	5.8

Rate of change in area under crops...

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Turmeric	17.5	15.8	-19.5	-11.8	-12.4	-1.9	24.2	-11.5	-7.5	1.6
Cardamom	0.0	0.0	-3.9	4.6	0.0	-0.8	0.9	0.0	-4.5	0.0
Arecanut	0.9	-6.0	-2.2	-2.3	1.7	0.2	5.2	-2.7	-1.7	-3.3
Tamarind	-4.2	-10.0	-18.1	-6.7	-1.4	-6.2	24.8	-8.8	-2.9	-14.7
Clove	11.4	17.6	13.6	-12.1	9.5	-6.9	-16.8	-2.4	11.6	5.4
Nutmeg	1.9	22.9	10.6	8.5	-1.6	10.1	3.5	1.7	6.3	5.1
Garlic	-78.8	240.0	58.4	-8.6	5.0	-50.9	-6.1	-53.5	102.8	-48.6
Tapioca	2.3	-3.8	-3.6	3.9	-14.1	-3.5	3.1	-6.6	-2.9	11.7
Sweet Potato	-15.0	-29.0	-1.2	-22.6	3.4	-21.8	-20.8	14.2	17.0	9.4
Drumstick	-4.1	-6.9	-10.1	-3.6	-0.9	-4.7	2.0	-6.0	6.4	3.4
Groundnut	145.1	-14.7	3.5	-40.5	-22.7	12.2	13.9	-54.2	-9.4	-32.4
Sesamum	-32.0	22.0	-27.2	8.1	5.6	-14.6	-62.0	32.0	1.9	-1.1
Coconut	-0.2	-2.8	-6.2	-3.8	-1.2	-1.0	6.5	-2.8	1.3	-1.8
Cotton	80.4	-51.0	-0.4	-11.0	-11.6	-50.8	-20.2	-14.3	-48.4	-4.0
Betel Leaves	-12.5	-21.4	-17.0	-8.1	-4.5	4.7	-25.4	-4.0	6.6	-8.4
Tea	0.0	0.9	2.2	1.2	0.8	0.3	0.2	-18.4	15.9	-13.7
Coffee	0.0	-0.1	-0.5	0.7	0.1	0.2	0.5	0.0	0.0	0.0
Rubber	2.9	1.6	2.0	1.1	1.5	1.7	1.0	0.0	1.6	0.3
Cocoa	2.5	11.9	34.5	5.9	-20.6	3.1	2.2	2.0	1.9	-0.6

8. Share of gross cropped area by each crop from the year 2005-06 to 2014-15

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Paddy Autumn	3.3	2.9	2.8	2.9	2.9	2.7	2.6	2.4	2.0	2.4
Paddy Winter	5.2	4.9	3.8	3.9	4.0	3.5	3.5	3.3	3.9	3.4
Paddy Summer	0.7	1.2	1.6	1.8	1.8	1.9	1.8	1.8	1.8	1.7
Paddy Total	9.2	9.0	8.3	8.7	8.8	8.1	7.8	7.6	7.6	7.5
Jowar	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Ragi	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sugarcane	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Jack	3.2	3.0	3.1	2.9	2.9	2.8	3.4	3.5	3.4	3.5
Mango	2.9	2.6	2.5	2.5	2.4	2.3	2.8	2.9	2.9	2.9
Banana	2.1	2.0	2.1	2.0	1.9	2.2	2.2	2.4	2.4	2.4
Plantain	1.8	1.8	1.9	1.9	1.8	1.9	1.8	1.9	2.1	2.2
Pineapple	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3
Papaya	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.7
Other fruits	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4
Total fresh fruits	11.4	10.9	11.0	10.7	10.4	10.7	11.7	11.9	12.2	12.4
Cashew (dry fruit)	2.6	2.4	2.1	2.0	1.8	1.7	2.0	2.0	1.9	1.7
Total fruits	14.1	13.3	13.1	12.7	12.3	12.3	13.7	14.0	14.1	14.2
Green Chilly	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Pepper	8.0	7.4	6.4	5.7	6.4	6.5	3.2	3.3	3.2	3.3
Ginger	0.4	0.4	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2

Share of gross cropped area by each crop ...

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Turmeric	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Cardamom	1.4	1.4	1.4	1.5	1.6	1.6	1.6	1.6	1.5	1.5
Arecanut	3.6	3.5	3.6	3.6	3.7	3.8	3.9	3.9	3.8	3.7
Tamarind	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.4
Clove	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nutmeg	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8
Garlic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tapioca	3.0	3.0	3.0	3.2	2.8	2.7	2.8	2.7	2.6	2.9
Sweet Potato	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Drumstick	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Groundnut	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Sesamum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Coconut	30.1	29.9	29.7	29.2	29.2	29.1	30.8	30.8	30.9	30.2
Cotton	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Betel Leaves	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tea	1.2	1.2	1.3	1.4	1.4	1.4	1.4	1.2	1.3	1.2
Coffee	2.8	2.9	3.0	3.1	3.2	3.2	3.2	3.3	3.3	3.3
Rubber	16.6	17.2	18.5	19.2	19.7	20.2	20.3	20.8	21.0	21.0
Cocoa	0.3	0.4	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5

9. Index Numbers of area under crops in Kerala from 2007-08 to 2014-15

Base Year TE 2007-08=100 (Average area of each crop for the Triennium Ending 2007-08 = 100)

Year	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Paddy Autumn	89.6	91.7	89.3	81.5	78.7	73.1	60.0	73.9
Paddy Winter	78.4	77.8	79.6	67.8	68.6	64.2	74.6	65.9
Paddy Summer	132.0	144.6	143.2	148.6	137.4	137.4	136.2	131.3
Paddy Total	89.4	91.5	91.4	83.3	81.3	77.0	78.0	77.4
Jowar	125.7	94.0	103.8	90.0	11.4	6.0	6.1	7.1
Ragi	66.7	152.5	73.5	66.0	62.2	28.3	20.6	19.8
Sugarcane	167.0	189.4	165.9	158.8	145.4	97.2	123.4	84.7
Jack	95.3	88.6	87.3	84.0	100.9	100.2	100.8	103.0
Mango	89.0	85.5	81.7	79.7	96.8	95.4	98.9	99.0
Banana	99.0	91.3	85.5	97.8	98.5	101.8	103.8	103.3
Plantain	96.5	94.2	89.8	92.3	91.6	91.8	102.4	106.6
Pineapple	92.5	85.5	80.7	83.9	73.4	70.1	65.7	66.4
Papaya	98.3	99.7	92.8	89.1	90.8	89.3	91.7	99.2
Other fruits	100.0	98.8	108.0	111.0	119.9	109.1	108.9	116.9
Cashew (dry fruit)	84.6	76.8	70.9	63.5	78.3	75.4	71.1	65.8
Green Chilly	103.7	118.8	111.4	103.3	98.1	99.2	99.1	117.5
Pepper	83.6	73.2	81.6	81.9	40.6	40.3	40.0	40.7
Ginger	82.7	69.2	50.4	56.8	64.4	42.0	42.3	44.8
Turmeric	90.5	79.8	70.0	68.6	85.2	75.4	69.7	70.9
Cardamom	97.4	101.9	101.9	101.0	101.9	101.9	97.3	97.3

Index Numbers of area under crops ...

Year	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Arecanut	96.4	94.2	95.8	96.0	101.0	98.3	96.6	93.4
Tamarind	83.9	78.2	77.1	72.3	90.3	82.3	79.9	68.2
Clove	114.1	100.4	109.9	102.4	85.1	83.1	92.8	97.8
Nutmeg	113.6	123.3	121.3	133.6	138.3	140.6	149.4	157.1
Garlic	165.1	150.9	158.5	77.8	73.1	34.0	68.9	35.4
Tapioca	96.3	100.0	85.9	82.9	85.4	79.8	77.5	86.6
Sweet Potato	87.3	67.5	69.8	54.6	43.2	49.3	57.7	63.1
Drumstick	90.7	87.5	86.7	82.7	84.3	79.3	84.4	87.2
Groundnut	96.8	57.6	44.6	50.0	56.9	26.1	23.6	16.0
Sesamum	85.7	92.7	97.8	83.5	31.7	41.8	42.6	42.1
Coconut	94.9	91.3	90.2	89.3	95.1	92.5	93.7	92.0
Cotton	74.0	65.8	58.2	28.6	22.9	19.6	10.1	9.7
Betel Leaves	80.3	73.8	70.5	73.8	55.0	52.8	56.3	51.6
Tea	101.7	102.9	103.8	104.1	104.3	85.1	98.6	85.1
Coffee	99.6	100.3	100.4	100.6	101.1	101.1	101.1	101.1
Rubber	101.8	102.9	104.5	106.2	107.3	107.3	109.0	109.4
Cocoa	124.6	132.0	104.8	108.0	110.4	112.6	114.7	114.0

10. Production of important agricultural crops in Kerala from 2005-06 to 2014-15

Unit: in Tonnes, coconut: in Million nuts, Cotton: no. of bales of 170 Kg each

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Rice Autumn	212520	191241	168108	192770	192050	170262	171662	161083	141234	161477
Rice Winter	357734	346763	251103	249101	272284	215011	248114	212607	285614	254450
Rice Summer	59733	103571	109277	148370	134005	137465	149217	134609	137477	146165
Rice Total	629987	641575	528488	590241	598339	522738	568993	508299	564325	562092
Sweet Potato	9013	6405	6343	4827	4575	4887	4159	4780	5451	5123
Tapioca	2568284	2518999	2556455	2712114	2525384	2408962	2547399	2458515	2479070	2943919
Coconut	6326	6054	5641	5802	5667	5287	5941	5799	5921	5947
Arecanut	119309	109968	114690	125654	116763	99909	121623	118233	100018	125926
Tamarind	28777	26188	21345	20164	19627	31794	26991	18492	44680	37300
Sesamum	210	294	171	309	206	228	76	98	88	89
Jowar	1248	929	1573	1177	1305	1128	219	116	119	128
Ragi	335	417	216	492	236	212	262	123	85	78
Sugarcane	9165	6582	15915	27548	28497	27184	26304	16572	22152	14853
Green Chilly	1192	1364	1340	1553	1302	1348	1283	1287	1283	1491
Drumstick	18875	18435	17390	16658	15855	15838	16257	14877	15757	15976
Groundnut	2441	2081	2154	1282	992	1867	2152	976	868	692
Cotton	3452	1690	1680	1498	1324	731	640	572	284	279

Production of crops...

Unit: in Tonnes, Jack: in Million nuts

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Tea	56384	53659	51754	51726	57810	57291	57904	62963	63480	65174
Coffee	60175	59475	48650	57200	59250	65650	68175	68175	66645	67700
Rubber	739225	780405	753135	783485	745510	770580	798940	800050	648220	507700
Cardamom*	9765	8545	7031	8550	7800	7935	10222	11350	12910	16000
Cocoa	5362	5783	9447	8778	6198	8673	14317	13362	12323	14186
Betel Leaves	137392	45337	26242	22171	21833	20426	21029	23966	12554	12009
Clove	61	73	82	73	84	90	69	68	77	77
Nutmeg	2746	11361	11217	11249	11269	11911	12059	12528	13212	14193
Garlic	1105	3757	5950	5440	5712	1508	1417	658	1314	625
Black Pepper	87605	64264	41952	33991	42459	45267	37501	46298	29408	40690
Cured Ginger	56288	42496	31726	30809	28603	33197	37125	22064	21521	22989
Cured Turmeric	8237	9980	7434	6364	6066	6198	7946	6904	6253	6820
Mango	511131	445423	408143	392916	373168	380859	460424	441033	457067	434129
Jack	350	333	309	290	281	301	272	300	294	293
Banana	491823	463766	439803	435979	406242	483667	514054	515607	531299	545431
Plantain	445333	435636	391896	399633	338546	353772	330634	351315	362395	468320
Pineapple	109325	102449	82782	87882	80777	85526	82336	72857	75562	77731
Papaya	85481	80491	80008	80494	109007	100772	96925	101207	103420	107200
Raw Cashew	68262	61680	52402	42334	35818	34752	36743	37919	33375	29715

Source: Department of Economics & Statistics, Kerala; * Spices Board, India

11. Rate of change in production of crops in Kerala over the previous year from 2005-06 to 2014-15

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Rice Autumn	-12.1	-10.0	-12.1	14.7	-0.4	-11.3	0.8	-6.2	-12.3	14.3
Rice Winter	6.6	-3.1	-27.6	-0.8	9.3	-21.0	15.4	-14.3	34.3	-10.9
Rice Summer	-33.4	73.4	5.5	35.8	-9.7	2.6	8.5	-9.8	2.1	6.3
Rice Total	-5.6	1.8	-17.6	11.7	1.4	-12.6	8.8	-10.7	11.0	-0.4
Sweet Potato	-10.0	-28.9	-1.0	-23.9	-5.2	6.8	-14.9	14.9	14.0	-6.0
Tapioca	7.0	-1.9	1.5	6.1	-6.9	-4.6	5.7	-3.5	0.8	18.8
Coconut	5.4	-4.3	-6.8	2.9	-2.3	-6.7	12.4	-2.4	2.1	0.4
Arecanut	8.1	-7.8	4.3	9.6	-7.1	-14.4	21.7	-2.8	-15.4	25.9
Tamarind	-3.9	-9.0	-18.5	-5.5	-2.7	62.0	-15.1	-31.5	141.6	-16.5
Sesamum	-19.2	40.0	-41.8	80.7	-33.3	10.7	-66.7	28.9	-10.2	1.1
Jowar	-4.7	-25.6	69.3	-25.2	10.9	-13.6	-80.6	-47.0	2.6	7.6
Ragi	-70.1	24.5	-48.2	127.8	-52.0	-10.2	23.6	-53.1	-30.9	-8.2
Sugarcane	-40.6	-28.2	141.8	73.1	3.4	-4.6	-3.2	-37.0	33.7	-32.9
Green Chilly	53.8	14.4	-1.8	15.9	-16.2	3.5	-4.8	0.3	-0.3	16.2
Drumstick	-21.2	-2.3	-5.7	-4.2	-4.8	-0.1	2.6	-8.5	5.9	1.4
Groundnut	145.1	-14.7	3.5	-40.5	-22.6	88.2	15.3	-54.6	-11.1	-20.3
Cotton	45.7	-51.0	-0.6	-10.8	-11.6	-44.8	-12.4	-10.6	-50.3	-1.8
Tea	13.9	-4.8	-3.6	-0.1	11.8	-0.9	1.1	8.7	0.0	3.6
Coffee	10.8	-1.2	-18.2	17.6	3.6	10.8	3.8	0.0	-2.2	1.6
Rubber	7.0	5.6	-3.5	4.0	-4.8	3.4	3.7	0.1	-19.0	-21.7
Cardamom	13.3	-12.5	-17.7	21.6	-8.8	1.7	28.8	11.0	13.7	23.9

Rate of change in production of crops ...

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Cocoa	5.9	7.9	63.4	-7.1	-29.4	39.9	65.1	-6.7	-7.8	15.1
Betel Leaves	-12.8	-67.0	-42.1	-15.5	-1.5	-6.4	3.0	14.0	-47.6	-4.3
Clove	15.1	19.7	12.3	-11.0	15.1	7.1	-23.3	-1.4	13.2	0.0
Nutmeg	1.7	313.7	-1.3	0.3	0.2	5.7	1.2	3.9	5.5	7.4
Garlic	-78.8	240.0	58.4	-8.6	5.0	-73.6	-6.0	-53.6	99.7	-52.4
Black Pepper	16.8	-26.6	-34.7	-19.0	24.9	6.6	-17.2	23.5	-36.5	38.4
Cured Ginger	24.2	-24.5	-25.3	-2.9	-7.2	16.1	11.8	-40.6	-2.5	6.8
Cured Turmeric	31.9	21.2	-25.5	-14.4	-4.7	2.2	28.2	-13.1	-9.4	9.1
Mango	-2.7	-12.9	-8.4	-3.7	-5.0	2.1	20.9	-4.2	3.6	-5.0
Jack	0.6	-4.9	-7.2	-6.1	-3.1	7.1	-9.6	10.3	-2.0	-0.3
Banana	3.5	-5.7	-5.2	-0.9	-6.8	19.1	6.3	0.3	3.0	2.7
Plantain	7.0	-2.2	-10.0	2.0	-15.3	4.5	-6.5	6.3	3.2	29.2
Pineapple	7.3	-6.3	-19.2	6.2	-8.1	5.9	-3.7	-11.5	3.7	2.9
Papaya	-2.4	-5.8	-0.6	0.6	35.4	-7.6	-3.8	4.4	2.2	3.7
Raw Cashew	12.7	-9.6	-15.0	-19.2	-15.4	-3.0	5.7	3.2	-12.0	-11.0

12. Index Numbers of production of crops in Kerala from 2007-08 to 2014-15

Base Year TE 2007-08=100 (Average production of each crop for the Triennium Ending 2007-08 = 100)

Year	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Rice Autumn	88.2	101.1	100.7	89.3	90.1	84.5	74.1	84.7
Rice Winter	78.8	78.2	85.5	67.5	77.9	66.7	89.7	79.9
Rice Summer	120.3	163.3	147.5	151.3	164.2	148.1	151.3	160.9
Rice Total	88.1	98.4	99.7	87.1	94.8	84.7	94.1	93.7
Sweet Potato	87.4	66.5	63.1	67.4	57.3	65.9	75.1	70.6
Tapioca	100.3	106.4	99.1	94.5	100.0	96.5	97.3	115.5
Coconut	93.9	96.6	94.3	88.0	98.9	96.5	98.6	99.0
Arecanut	100.0	109.6	101.8	87.1	106.1	103.1	87.2	109.8
Tamarind	83.9	79.3	77.2	125.0	106.1	72.7	175.7	146.6
Sesamum	76.0	137.3	91.6	101.3	33.8	43.6	39.1	39.6
Jowar	125.8	94.2	104.4	90.2	17.5	9.3	9.5	10.2
Ragi	66.9	152.5	73.1	65.7	81.2	38.1	26.3	24.2
Sugarcane	150.8	261.0	270.0	257.6	249.2	157.0	209.9	140.7
Green Chilly	103.2	119.6	100.3	103.8	98.8	99.1	98.8	114.8
Drumstick	95.4	91.4	87.0	86.9	89.2	81.6	86.4	87.6
Groundnut	96.8	57.6	44.6	83.9	96.7	43.9	39.0	31.1
Cotton	73.9	65.9	58.2	32.1	28.1	25.2	12.5	12.3
Tea	96.0	95.9	107.2	106.2	107.4	116.7	116.7	120.8
Coffee	86.7	102.0	105.6	117.0	121.5	121.5	118.8	120.7
Rubber	99.4	103.4	98.4	101.7	105.5	105.6	85.6	67.0

Index Numbers of production of crops ...

Year	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Cardamom	83.2	101.2	92.3	93.9	121.0	134.4	152.8	189.4
Cocoa	137.6	127.9	90.3	126.4	208.6	194.7	179.5	206.7
Betel Leaves	37.7	31.8	31.3	29.3	30.2	34.4	18.0	17.2
Clove	113.9	101.4	116.7	125.0	95.8	94.4	106.9	106.9
Nutmeg	132.9	133.3	133.5	141.1	142.9	148.4	156.5	168.1
Garlic	165.1	150.9	158.5	41.8	39.3	18.3	36.5	17.3
Black Pepper	64.9	52.6	65.7	70.1	58.0	71.7	45.5	63.0
Cured Ginger	72.9	70.8	65.7	76.3	85.3	50.7	49.5	52.8
Cured Turmeric	86.9	74.4	70.9	72.5	92.9	80.7	73.1	79.8
Mango	89.7	86.4	82.0	83.7	101.2	97.0	100.5	95.4
Jack	93.4	87.7	85.0	91.0	82.3	90.7	88.9	88.6
Banana	94.6	93.7	87.3	104.0	110.5	110.9	114.2	117.3
Plantain	92.4	94.2	79.8	83.4	77.9	82.8	85.4	110.4
Pineapple	84.3	89.5	82.3	87.1	83.9	74.2	77.0	79.2
Papaya	97.6	98.2	132.9	122.9	118.2	123.4	126.1	130.7
Raw Cashew	86.2	69.6	58.9	57.2	60.5	62.4	54.9	48.9

Note: For more details on methodology of Index Numbers of agricultural production, report on agricultural statistics published by Govt of India may be referred.

13. Productivity of principal crops in Kerala from 2005-06 to 2014-15

Unit: Kg per Hectare, for Coconut & Jack fruit: No. of nuts per Hectare

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Rice Autumn	2163	2281	2168	2428	2486	2415	2519	2547	2720	2524
Rice Winter	2299	2413	2370	2370	2533	2348	2676	2451	2833	2859
Rice Summer	2733	2881	2404	2982	2719	2688	3155	2846	2933	3235
Rice Total	2285	2435	2308	2520	2557	2452	2733	2577	2827	2837
Coconut	7046	6935	6889	7365	7278	6862	7237	7265	7322	7491
Tapioca	28367	28911	30438	31088	33737	33326	34419	35331	36679	38996
Banana	8010	7841	7411	7965	7923	8244	8703	8451	8533	8806
Plantain	8064	8205	7629	7973	7082	7201	6783	7190	6648	8251
Jack	3688	3769	3622	3658	3583	4003	3011	3344	3259	3178
Cocoa	560	540	656	575	512	695	1122	1027	930	1076
Pepper	368	297	239	221	248	263	445	547	350	476
Arecanut	1099	1077	1149	1289	1177	1001	1163	1162	1000	1302
Cashew	872	875	898	799	731	793	680	728	680	654
Sesamum	350	402	321	536	339	439	386	377	332	341

Source: Department of Economics & Statistics

14. Rate of change of productivity of crops over the previous year from 2005-06 to 2014-15

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Rice Autumn	-5.8	5.4	-4.9	12.0	2.4	-2.9	4.3	1.1	6.8	-7.2
Rice Winter	2.0	5.0	-1.8	0.0	6.9	-7.3	13.9	-8.4	15.6	0.9
Rice Summer	8.8	5.4	-16.5	24.0	-8.8	-1.1	17.4	-9.8	3.1	10.3
Rice Total	-0.7	6.6	-5.2	9.1	1.5	-4.1	11.5	-5.7	9.7	0.3
Coconut	5.6	-1.6	-0.7	6.9	-1.2	-5.7	5.5	0.4	0.8	2.3
Tapioca	4.6	1.9	5.3	2.1	8.5	-1.2	3.3	2.6	3.8	6.3
Banana	-0.8	-2.1	-5.5	7.5	-0.5	4.1	5.6	-2.9	1.0	3.2
Plantain	5.8	1.7	-7.0	4.5	-11.2	1.7	-5.8	6.0	-7.5	24.1
Jack	3.4	2.2	-3.9	1.0	-2.1	11.7	-24.8	11.1	-2.5	-2.5
Cocoa	3.3	-3.6	21.5	-12.3	-11.0	35.7	61.4	-8.5	-9.4	15.7
Pepper	16.5	-19.3	-19.5	-7.5	12.2	6.0	69.2	22.9	-36.0	36.0
Arecanut	7.1	-2.0	6.7	12.2	-8.7	-15.0	16.2	-0.1	-13.9	30.2
Cashew	17.4	0.3	2.6	-11.0	-8.5	8.5	-14.2	7.1	-6.6	-3.8
Sesamum	19.0	14.9	-20.1	67.0	-36.8	29.5	-12.1	-2.3	-11.9	2.7

15. Index Numbers of productivity of crops in Kerala from 2007-08 to 2014-15

Base Year TE 2007-08=100 (Average productivity of each crop for the Triennium Ending 2007-08 = 100)

Year	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Rice Autumn	98.4	110.2	112.8	109.6	114.3	115.6	123.4	114.5
Rice Winter	100.4	100.4	107.3	99.5	113.4	103.8	120.0	121.1
Rice Summer	90.0	111.5	101.7	100.6	118.1	106.5	109.7	121.0
Rice Total	98.5	107.6	109.1	104.7	116.7	110.0	120.7	121.1
Coconut	99.0	105.9	104.6	98.6	104.0	104.4	105.3	107.7
Tapioca	104.1	106.3	115.4	114.0	117.7	120.8	125.4	133.4
Banana	95.6	102.7	102.2	106.3	112.2	109.0	110.0	113.6
Plantain	95.8	100.1	88.9	90.4	85.1	90.3	83.5	103.6
Jack	98.1	99.1	97.0	108.4	81.5	90.5	88.2	86.1
Cocoa	112.1	98.2	87.5	118.7	191.7	175.5	158.9	183.8
Pepper	79.3	73.3	82.3	87.3	147.7	181.5	116.2	158.0
Arecanut	103.7	116.3	106.2	90.3	104.9	104.8	90.2	117.5
Cashew	101.9	90.6	82.9	89.9	77.1	82.6	77.1	74.2
Sesamum	89.7	149.9	94.8	122.7	107.9	105.4	92.8	95.3

16. Area, production and productivity of coconut in Kerala and India from 1955-56 to 2013-14

Area: in '000 Hectares, Production: in Million nuts, Productivity: in Nuts per Hectare

Year	Area ('000 Hectares)			Production (Million nuts)			Productivity	
	Kerala	India	% share	Kerala	India	% share	Kerala	India
1955-56	447.952	650	68.9	3099	4226	73.3	6919	6502
1956-57	459.733	660	69.7	3132	4383	71.5	6813	6641
1957-58	463.282	670	69.1	3199	4455	71.8	6904	6649
1958-59	475.690	690	68.9	3248	4589	70.8	6830	6651
1959-60	492.550	720	68.4	3365	4734	71.1	6832	6575
1960-61	500.769	720	69.6	3220	4639	69.4	6430	6443
1961-62	504.829	720	70.1	3247	4478	72.5	6432	6219
1962-63	539.270	800	67.4	3305	5017	65.9	6129	6271
1963-64	544.896	800	68.1	3262	4725	69.0	5986	5906
1964-65	558.991	850	65.8	3278	5043	65.0	5864	5933
1965-66	586.313	880	66.6	3293	5035	65.4	5616	5722
1966-67	609.600	890	68.5	3425	5192	66.0	5618	5834
1967-68	638.700	920	69.4	3593	5321	67.5	5625	5784
1968-69	686.100	990	69.3	3834	5546	69.1	5588	5602
1969-70	707.800	1030	68.7	3956	5859	67.5	5589	5688
1970-71	719.100	1050	68.5	3981	6075	65.5	5536	5786
1971-72	730.300	1090	67.0	4054	6124	66.2	5551	5618
1972-73	745.400	1100	67.8	3921	5997	65.4	5260	5452
1973-74	744.300	1100	67.7	3703	5851	63.3	4975	5319

Area, production and productivity of coconut...

Year	Area ('000 Hectares)			Production (Million nuts)			Productivity	
	Kerala	India	% share	Kerala	India	% share	Kerala	India
1974-75	748.200	1120	66.8	3719	6030	61.7	4971	5384
1975-76	693.000	1070	64.8	3439	5829	59.0	4962	5448
1976-77	694.985	1080	64.4	3343	5765	58.1	4817	5338
1977-78	699.119	1060	66.0	3367	5413	62.2	4816	5107
1978-79	660.628	1060	62.3	3211	5730	56.0	4861	5406
1979-80	662.657	1080	61.4	3032	5636	53.8	4576	5219
1980-81	651.370	1080	60.3	3008	5720	52.6	4618	5296
1981-82	666.618	1090	61.2	3006	5573	53.9	4509	5113
1982-83	674.378	1150	58.6	3184	6356	50.1	4721	5527
1983-84	682.281	1170	58.3	2602	5808	44.8	3814	4964
1984-85	687.483	1180	58.3	3453	6913	49.9	5023	5858
1985-86	704.682	1230	57.3	3377	6770	49.9	4792	5504
1986-87	706.107	1230	57.4	3173	6377	49.8	4494	5185
1987-88	775.365	1350	57.4	3346	7270	46.0	4315	5385
1988-89	816.880	1430	57.1	4215	8541	49.4	5160	5973
1989-90	832.174	1470	56.6	4358	9359	46.6	5237	6367
1990-91	870.022	1480	58.8	4232	9730	43.5	4864	6574
1991-92	863.061	1530	56.4	4641	10050	46.2	5377	6569
1992-93	877.012	1540	56.9	5124	11241	45.6	5843	7299
1993-94	882.293	1640	53.8	5192	11975	43.4	5885	7302
1994-95	910.960	1710	53.3	5336	13300	40.1	5858	7778

Area, production and productivity of coconut...

Year	Area ('000 Hectares)			Production (Million nuts)			Productivity	
	Kerala	India	% share	Kerala	India	% share	Kerala	India
1995-96	914.370	1830	50.0	5155	12952	39.8	5638	7078
1996-97	902.104	1890	47.7	5276	13061	40.4	5849	6911
1997-98	884.344	1860	47.5	5209	12717	41.0	5890	6837
1998-99	882.288	1750	50.4	5132	12536	40.9	5817	7163
1999-00	925.035	1770	52.3	5680	12129	46.8	6140	6853
2000-01	925.783	1840	50.3	5536	12597	43.9	5980	6846
2001-02	905.718	1930	46.9	5479	12963	42.3	6049	6717
2002-03	899.198	1920	46.8	5709	12535	45.5	6349	6529
2003-04	898.498	1930	46.6	5876	12178	48.3	6540	6310
2004-05	899.267	1940	46.4	6001	12833	46.8	6673	6615
2005-06	897.833	1950	46.0	6326	14811	42.7	7046	7595
2006-07	872.943	1940	45.0	6054	15840	38.2	6935	8165
2007-08	818.812	1903	43.0	5641	14744	38.3	6889	7760
2008-09	787.769	1895	41.6	5802	10148	57.2	7365	5333
2009-10	778.618	1900	41.0	5667	10824	52.4	7278	5712
2010-11	770.473	1900	40.6	5287	15753	33.6	6862	8291
2011-12	820.867	2070	39.7	5941	20924	28.4	7237	10108
2012-13	798.162	2140	37.3	5799	22684	25.6	7265	10600
2013-14	808.647	2140	37.8	5921	22088	26.8	7322	10321

Sources: Economic Review, KSPB; Agricultural Statistics, Department of Economics & Statistics, Kerala and Agricultural Statistics 2014, Department of Agriculture & Cooperation, M/o Agriculture & Cooperation, Govt of India

17. Area, production and productivity of paddy/ rice in Kerala and India from 1955-56 to 2013-14

Year	Area ('0000 Hectares)			Production ('0000 MT)			Productivity (in Kg/Ha)	
	Kerala	India	% share	Kerala	India	% share	Kerala	India
1955-56	75.9368	3152	2.41	86.90	2756	3.15	1144	874
1956-57	76.2039	3228	2.42	87.32	2904	3.62	1345	900
1957-58	76.6774	3230	2.37	91.00	2553	3.56	1187	790
1958-59	76.8435	3317	2.32	93.94	3085	3.05	1222	930
1959-60	76.8976	3382	2.27	102.16	3168	3.22	1329	937
1960-61	77.8926	3413	2.28	105.07	3458	3.04	1349	1013
1961-62	75.2704	3469	2.17	98.82	3566	2.77	1313	1028
1962-63	80.2676	3569	2.25	107.59	3321	3.24	1340	931
1963-64	80.5083	3581	2.25	112.81	3700	3.05	1401	1033
1964-65	80.1121	3646	2.20	112.14	3931	2.85	1400	1078
1965-66	80.2329	3547	2.26	99.74	3059	3.26	1243	862
1966-67	79.9438	3525	2.27	108.40	3044	3.56	1356	863
1967-68	80.9544	3644	2.22	112.40	3761	2.99	1388	1032
1968-69	87.3871	3697	2.36	125.10	3976	3.15	1432	1076
1969-70	87.4059	3768	2.32	122.64	4043	3.03	1403	1073
1970-71	87.4830	3759	2.33	129.80	4222	3.07	1484	1123
1971-72	87.5157	3776	2.32	135.20	4307	3.14	1545	1141
1972-73	87.3704	3669	2.38	137.60	3924	3.51	1575	1070
1973-74	87.4675	3829	2.28	125.71	4405	2.85	1437	1151

Area, production and productivity of paddy/ rice...

Year	Area ('0000 Hectares)			Production ('0000 MT)			Productivity (in Kg/Ha)	
	Kerala	India	% share	Kerala	India	% share	Kerala	India
1974-75	88.1466	3789	2.33	133.39	3958	3.37	1513	1045
1975-76	87.6022	3948	2.22	132.94	4874	2.73	1518	1235
1976-77	85.4374	3851	2.22	125.40	4192	2.99	1468	1089
1977-78	84.0374	4028	2.09	129.46	5267	2.46	1541	1308
1978-79	79.9238	4048	1.97	127.27	5377	2.37	1592	1328
1979-80	79.3266	3942	2.01	129.97	4233	3.07	1638	1074
1980-81	80.1699	4015	2.00	127.19	5363	2.37	1587	1336
1981-82	80.6871	4071	1.98	133.94	5325	2.52	1661	1308
1982-83	77.8490	3826	2.03	130.62	4712	2.77	1678	1231
1983-84	74.0086	4124	1.79	120.79	6010	2.01	1632	1457
1984-85	73.0379	4116	1.77	125.59	5834	2.15	1720	1417
1985-86	67.8281	4114	1.65	117.31	6383	1.84	1729	1552
1986-87	66.3803	4117	1.61	113.38	6056	1.87	1708	1471
1987-88	60.4082	3881	1.56	103.26	5686	1.82	1709	1465
1988-89	57.7557	4173	1.38	101.26	7049	1.44	1753	1689
1989-90	58.3388	4217	1.38	114.12	7357	1.55	1956	1745
1990-91	55.9450	4269	1.31	108.66	7429	1.46	1942	1740
1991-92	54.1327	4265	1.27	106.04	7468	1.42	1959	1751
1992-93	53.7608	4178	1.29	108.49	7286	1.49	2018	1744
1993-94	50.7832	4254	1.19	100.39	8030	1.25	1977	1888
1994-95	50.3290	4281	1.18	97.51	8181	1.19	1937	1911

Area, production and productivity of paddy/ rice...

Year	Area ('0000 Hectares)			Production ('0000 MT)			Productivity (in Kg/Ha)	
	Kerala	India	% share	Kerala	India	% share	Kerala	India
1995-96	47.1150	4284	1.10	95.30	7698	1.24	2022	1797
1996-97	43.0826	4343	0.99	87.14	8173	1.07	2023	1882
1997-98	38.7122	4345	0.89	76.46	8254	0.93	1975	1900
1998-99	35.2631	4480	0.79	72.67	8608	0.84	2061	1921
1999-00	34.9774	4516	0.77	77.07	8968	0.86	2203	1986
2000-01	34.7455	4471	0.78	75.13	8498	0.88	2162	1901
2001-02	32.2368	4490	0.72	70.35	9334	0.75	2182	2079
2002-03	31.0521	4118	0.75	68.89	7182	0.96	2218	1744
2003-04	28.7340	4259	0.67	57.00	8853	0.64	1984	2078
2004-05	28.9974	4191	0.69	66.71	8313	0.80	2295	1984
2005-06	27.5742	4366	0.63	63.00	9179	0.69	2285	2102
2006-07	26.3529	4381	0.60	64.16	9336	0.69	2435	2131
2007-08	22.8938	4391	0.52	52.85	3669	1.44	2308	2202
2008-09	23.4265	4554	0.51	59.02	9918	0.60	2520	2178
2009-10	23.4013	4192	0.56	59.83	8909	0.67	2557	2125
2010-11	21.3187	4286	0.50	52.27	9598	0.54	2452	2239
2011-12	20.8160	4401	0.47	56.90	10530	0.54	2733	2393
2012-13	19.7277	4275	0.46	50.83	10524	0.48	2577	2462
2013-14	19.9611	4395	0.45	56.43	10654	0.53	2827	2424

Sources: Economic Review, KSPB; Agricultural Statistics, Department of Economics & Statistics, Kerala and Agricultural Statistics 2014, Department of Agriculture & Cooperation, M/o Agriculture & Cooperation, Govt of India

18. Cost of cultivation of Autumn Paddy (in Rs. per hectare) from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	9542	9782	10716	10265	13179	12719	16833	18605	18336	30689
2	Animal labour	379	353	294	217	311	304	286	87	153	56
3	Machine labour	2161	2185	2281	2534	3282	4471	5601	3898	5934	6505
4	Seed/ seedlings	1125	974	1004	1170	1206	1492	1170	1548	2120	2201
5	Farm yard manure & chemical fertilizers	2900	2946	2948	3028	2840	2939	2991	3622	3973	5895
6	Plant protection	347	324	172	239	498	461	546	398	190	286
7	Land tax and irrigation cess	60	73	85	42	205	168	145	111	127	125
8	Repair & maintenance charges of implements, machinery & building	330	251	668	600	411	558	843	1212	839	287
9	Interest on working capital	878	888	928	915	1172	1287	1478	1495	1667	2511
10	Other expenses	1113	1195	1142	841	2119	3348	2126	1737	2629	4587
11	Interest on fixed capital	1024	743	1909	3014	2426	1636	1777	1008	1092	1431
12	Imputed value of household labour	1204	1199	1580	1159	2213	2528	2861	3685	2871	4771
	Total	21063	20913	23727	24024	29862	31911	36657	37406	39931	59344

Source: Department of Economics & Statistics

19. Cost of cultivation of Winter Paddy (in Rs. per hectare) from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	9663	9967	12183	12517	13883	16629	20202	18382	20700	25246
2	Animal labour	384	407	326	305	248	165	238	136	100	180
3	Machine labour	2292	2185	2823	3528	4397	4938	7115	5094	6467	7452
4	Seed/ seedlings	1239	1087	1176	1161	1441	1529	2044	1664	1913	2262
5	Farm yard manure & chemical fertilizers	2629	2823	3202	2989	3265	3891	4581	4885	6226	6483
6	Plant protection	561	239	269	363	363	508	456	257	295	479
7	Land tax and irrigation cess	136	72	105	139	365	148	122	211	148	244
8	Repair & maintenance charges of implements, machinery & building	302	340	496	677	615	772	883	1150	1928	452
9	Interest on working capital	892	890	1048	1113	1329	1565	1911	1673	1994	2356
10	Other expenses	1072	1084	977	1406	2977	3633	3581	3039	4184	5012
11	Interest on fixed capital	729	902	1464	2313	1443	1686	1417	1825	1033	635
12	Imputed value of household labour	987	1288	1578	1670	1873	2823	3125	3811	3804	4692
	Total cost	20886	21284	25647	28181	32199	38287	45675	42127	48792	55493

Source: Department of Economics & Statistics

20. Cost of cultivation of Summer Paddy (in Rs. per hectare) from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	9976	9851	11443	12252	13771	15579	17211	22398	20378	29040
2	Animal labour	414	382	63	174	168	72	141	122	158	25
3	Machine labour	2803	2625	2831	3403	4562	5553	6702	4387	5383	4239
4	Seed/ seedlings	1081	1091	1220	1290	1471	1768	2123	1882	2269	2743
5	Farm yard manure & chemical fertilizers	2618	3134	2927	3467	3182	3290	4094	3721	5941	6766
6	Plant protection	724	376	771	607	893	959	992	650	285	584
7	Land tax and irrigation cess	351	204	140	159	362	461	643	359	131	198
8	Repair & maintenance charges of implements, machinery & building	410	196	167	337	340	377	515	1293	1365	527
9	Interest on working capital	1068	936	1038	1150	1374	1540	1752	1773	1922	2379
10	Other expenses	3739	1322	1513	1801	3423	3584	3784	2293	3670	4173
11	Interest on fixed capital	723	723	855	1536	923	1097	1291	1122	1381	615
12	Imputed value of household labour	1334	1597	1306	1825	2183	2286	2742	3185	3318	6041
	Total	25241	22437	24274	28001	32652	36566	41990	43185	46201	57330

Source: Department of Economics & Statistics

21. Cost of cultivation of Coconut (in Rs. per hectare) from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	10980	11069	11939	12559	14647	17126	19750	21305	27561	29900
2	Animal labour	31	30	18	46	70	0	0	0	0	0
3	Machine labour	444	479	110	347	279	305	253	0	183	288
4	Seed/ seedlings	132	26	27	67	228	128	289	408	221	437
5	Farm yard manure & chemical fertilizers	5659	5992	5240	6008	6097	7796	7258	6840	6879	11183
6	Plant protection	44	74	33	207	15	17	96	45	178	85
7	Land tax and irrigation cess	80	86	88	78	91	104	94	180	131	188
8	Repair & maintenance charges of implements, machinery & building	346	105	556	596	632	843	720	2976	1353	540
9	Interest on working capital	1729	1851	1830	2054	2243	2678	2957	3110	3719	4414
10	Other expenses	1014	843	934	1303	1091	1409	1926	2947	2165	2242
11	Interest on fixed capital	1513	1458	3414	4682	5577	3905	4437	3493	1929	2348
12	Imputed value of household labour	1647	1725	1651	2212	2949	3118	3536	3826	4619	6605
	Total cost	23619	23738	25840	30159	33919	37429	41316	45130	48938	58230

Source: Department of Economics & Statistics

22. Cost of cultivation of Arecanut (in Rs. per hectare) from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	15265	12779	14245	16230	17331	19141	27965	25665	24687	29923
2	Animal labour	0	0	0	0	0	0	0	0	0	0
3	Machine labour	1152	801	574	665	931	623	0	0	178	501
4	Seed/ seedlings	24	24	0	115	49	246	45	283	364	473
5	Farm yard manure & chemical fertilizers	8926	7724	7066	9184	7891	9236	9796	6676	6939	8489
6	Plant protection	211	91	675	522	665	1129	477	411	299	414
7	Land tax and irrigation cess	129	81	76	338	59	96	115	243	218	362
8	Repair & maintenance charges of implements, machinery & building	500	390	843	1411	1438	1728	2209	2202	2760	1344
9	Interest on working capital	2661	2250	2348	2753	2905	3109	3928	3465	3467	4201
10	Other expenses	1035	1082	922	811	2178	711	999	1615	2202	2205
11	Interest on fixed capital	1734	1934	6451	11106	10773	8166	13584	5689	3661	4935
12	Imputed value of household labour	4019	2730	3547	2993	5029	3693	4279	5939	5019	7109
	Total cost	35656	29886	36747	46128	49249	47878	63397	52188	49794	59956

23. Cost of cultivation of Tapioca (in Rs. per hectare) from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	18696	13476	17445	20516	21770	23306	31293	32053	31325	39458
2	Animal labour	13	46	1	0	63	221	0	0	0	0
3	Machine labour	354	293	600	412	799	1077	390	0	415	1121
4	Seed/ seedlings	1044	828	1073	1282	1557	1816	1757	2175	2704	3202
5	Farm yard manure & chemical fertilizers	7416	6118	7226	6484	6604	7132	6658	8163	13911	7267
6	Plant protection	107	43	54	627	127	204	135	59	312	65
7	Land tax and irrigation cess	77	63	50	211	101	59	185	230	169	257
8	Repair & maintenance charges of implements, machinery & building	215	137	251	517	908	1055	1543	1230	420	562
9	Interest on working capital	3008	2267	2846	3264	3402	3816	4250	4495	5380	5626
10	Other expenses	2453	1865	2060	3320	3095	4401	2263	2502	5134	5145
11	Interest on fixed capital	1500	1320	3544	5884	5713	6132	5032	3698	570	724
12	Imputed value of household labour	4785	3496	4735	6309	6285	7543	10101	10886	14634	16817
	Total cost	39668	29952	39885	48826	50424	56762	63607	65491	74974	80244

24. Cost of cultivation of Banana (in Rs. per hectare) from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	28647	31403	27330	39258	28455	43579	40388	48886	55830	61531
2	Animal labour	5	22	7	13	0	68	0	0	0	0
3	Machine labour	949	702	175	705	1602	1416	269	0	846	228
4	Seed/ seedlings	10935	11640	9367	9813	9470	12067	12200	13723	14646	22500
5	Farm yard manure & chemical fertilizers	25367	24201	23699	24184	19173	22334	24052	33086	33904	23371
6	Plant protection	1118	1013	946	1964	1395	962	703	812	616	671
7	Land tax and irrigation cess	970	64	87	141	165	160	267	467	215	316
8	Repair & maintenance charges of implements, machinery & building	327	137	288	1517	1123	1841	1314	1777	1984	1112
9	Interest on working capital	6702	6898	7727	9784	7546	9457	9393	11645	11493	11684
10	Other expenses	0	0	15745	21898	15367	14148	16317	19926	9087	8543
11	Interest on fixed capital	1424	1527	4319	11609	6031	6731	6120	7784	2201	1263
12	Imputed value of household labour	13046	8842	9655	10447	10806	14823	17491	21096	27711	24796
	Total cost	89490	86449	99345	131333	101133	127586	128514	159202	158533	156015

25. Cost of cultivation of Pepper (in Rs. per hectare) from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	10859	10787	10632	12707	12858	20226	22465	29514	30147	40980
2	Animal labour	0	0	0	19	0	0	0	0	0	0
3	Machine labour	55	156	53	62	48	43	0	0	22	45
4	Seed/ seedlings	65	29	45	115	339	409	844	2061	309	297
5	Farm yard manure & chemical fertilizers	3273	6422	3586	4477	5163	5331	6714	6045	6960	6640
6	Plant protection	35	50	133	151	163	206	369	727	356	309
7	Land tax and irrigation cess	68	92	65	95	57	67	113	242	237	267
8	Repair & maintenance charges of implements, machinery & building	253	117	540	1184	1980	1695	2676	2590	2557	1158
9	Interest on working capital	1470	1788	1487	1822	1973	2736	3206	4117	4108	5138
10	Other expenses	412	433	419	693	1163	1148	1665	2825	3285	3113
11	Interest on fixed capital	1850	1640	4665	13660	12673	11768	12352	9581	8177	1423
12	Imputed value of household labour	2098	2568	4231	4222	5151	6361	8553	9284	10340	17147
	Total cost	20438	24082	25856	39207	41568	49990	58957	66986	66498	76517

26. Cost of cultivation of Ginger (in Rs. per hectare) from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	18954	20553	21848	31393	30428	41910	38333	34563	36816	42844
2	Animal labour	0	0	1	23	14	0	0	0	0	0
3	Machine labour	233	591	913	754	2336	6120	3053	1874	1596	1316
4	Seed/ seedlings	13858	20275	14913	16353	24440	26355	28072	22074	23528	28711
5	Farm yard manure & chemical fertilizers	19375	13814	12153	14497	14475	25054	22747	17193	12732	12902
6	Plant protection	452	774	1211	997	835	906	1105	357	389	392
7	Land tax and irrigation cess	64	67	54	50	50	43	54	221	204	270
8	Repair & maintenance charges of implements, machinery & building	211	160	925	1378	1337	1256	1537	2669	3028	1138
9	Interest on working capital	5287	5601	5338	6806	7654	10750	10048	8093	8150	8947
10	Other expenses	0	0	2338	4042	4011	7153	7174	4870	6442	3307
11	Interest on fixed capital	1194	1719	3542	7487	6785	8226	10715	5368	2144	2475
12	Imputed value of household labour	1607	6561	5200	7370	8633	10107	12551	9046	10138	10882
	Total cost	61235	70115	68436	91150	100998	137880	135389	106328	105167	113184

27. Cost of cultivation of Turmeric (in Rs. per hectare) from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	17708	17116	14632	18186	18654	26884	27333	35507	34023	39548
2	Animal labour	0	12	3	29	0	183	0	0	0	0
3	Machine labour	151	483	292	107	102	845	305	0	581	445
4	Seed/ seedlings	9159	7094	6557	8307	8065	12492	11392	16889	15495	15189
5	Farm yard manure & chemical fertilizers	5254	8842	8375	8912	7239	10348	10019	10819	12626	15652
6	Plant protection	24	237	104	115	62	327	222	756	256	343
7	Land tax and irrigation cess	95	68	65	63	216	558	305	359	175	250
8	Repair & maintenance charges of implements, machinery & building	106	116	615	1236	1297	1477	3497	1634	2900	1574
9	Interest on working capital	3270	3507	3063	3673	3627	5275	5082	6672	6705	7563
10	Other expenses	411	1287	668	1073	2147	1673	1552	2748	4064	4452
11	Interest on fixed capital	1060	1269	5499	9888	9658	12250	8317	2271	3646	2965
12	Imputed value of household labour	2353	9014	8174	11177	10962	12913	19252	6754	9430	10173
	Total cost	39591	49045	48047	62766	62029	85225	87276	84409	89901	98154

28. Crop wise total cost of cultivation per hectare from 2004-05 to 2013-14 (in Rs.)

	Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Paddy- Autumn	21063	20913	23727	24024	29862	31911	36657	37406	39931	59344
2	Paddy- Winter	20886	21284	25647	28181	32199	38287	45675	42127	48792	55493
3	Paddy- Summer	25241	22437	24274	28001	32652	36566	41990	43185	46201	57330
4	Coconut	23619	23738	25840	30159	33919	37429	41316	45130	48938	58230
5	Arecanut	35656	29886	36747	46128	49249	47878	63397	52188	49794	59956
6	Tapioca	39668	29952	39885	48826	50424	56762	63607	65491	74974	80244
7	Banana	89490	86449	99345	131333	101133	127586	128514	159202	158533	156015
8	Pepper	20438	24082	25856	39207	41568	49990	58957	66986	66498	76517
9	Ginger	61235	70115	68436	91150	100998	137880	135389	106328	105167	113184
10	Turmeric	39591	49045	48047	62766	62029	85225	87276	84409	89901	98154

29. Crop wise rate of change in total cost of cultivation per hectare over the previous year (percentage)

	Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Paddy- Autumn	-4.2	-0.7	13.5	1.3	24.3	6.9	14.9	2.0	6.8	48.6
2	Paddy- Winter	0.3	1.9	20.5	9.9	14.3	18.9	19.3	-7.8	15.8	13.7
3	Paddy- Summer	15.3	-11.1	8.2	15.4	16.6	12.0	14.8	2.8	7.0	24.1
4	Coconut	2.7	0.5	8.9	16.7	12.5	10.3	10.4	9.2	8.4	19.0
5	Arecanut	31.5	-16.2	23.0	25.5	6.8	-2.8	32.4	-17.7	-4.6	20.4
6	Tapioca	15.1	-24.5	33.2	22.4	3.3	12.6	12.1	3.0	14.5	7.0
7	Banana	5.3	-3.4	14.9	32.2	-23.0	26.2	0.7	23.9	-0.4	-1.6
8	Pepper	-14.4	17.8	7.4	51.6	6.0	20.3	17.9	13.6	-0.7	15.1
9	Ginger	-1.5	14.5	-2.4	33.2	10.8	36.5	-1.8	-21.5	-1.1	7.6
10	Turmeric	-11.7	23.9	-2.0	30.6	-1.2	37.4	2.4	-3.3	6.5	9.2

30. Crop wise value of output (products and by products) per hectare from 2004-05 to 2013-14 (in Rs.)

	Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Paddy- Autumn	25018	24001	28752	23117	38624	42262	41517	46988	47825	67218
2	Paddy- Winter	23317	26224	31530	34817	43300	45680	56819	52547	53661	68643
3	Paddy- Summer	25921	25861	29756	28401	40652	38937	56146	51892	55789	70550
4	Coconut	36456	41746	41573	44438	45157	52580	64447	58447	58042	92304
5	Arecanut	45392	65755	67481	45724	56697	73058	104805	68520	68755	110201
6	Tapioca	53650	49377	65298	68906	79984	100285	137407	158096	164342	219033
7	Banana	117529	118229	150007	214796	206181	265565	273531	328464	397055	384288
8	Pepper	26042	32995	44389	55422	56234	71711	72206	144219	154488	161762
9	Ginger	61356	76215	92919	150958	186144	251939	215483	122196	139919	191234
10	Turmeric	42242	57279	51132	70350	92117	112138	100837	78321	89069	154764

31. Rate of change in value of output per hectare from the previous year from 2004-05 to 2013-14

	Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Paddy- Autumn	-7.4	-4.1	19.8	-19.6	67.1	9.4	-1.8	13.2	1.8	40.5
2	Paddy- Winter	5.9	12.5	20.2	10.4	24.4	5.5	24.4	-7.5	2.1	27.9
3	Paddy- Summer	26.3	-0.2	15.1	-4.6	43.1	-4.2	44.2	-7.6	7.5	26.5
4	Coconut	2.6	14.5	-0.4	6.9	1.6	16.4	22.6	-9.3	-0.7	59.0
5	Arecanut	-18.8	44.9	2.6	-32.2	24.0	28.9	43.5	-34.6	0.3	60.3
6	Tapioca	11.8	-8.0	32.2	5.5	16.1	25.4	37.0	15.1	4.0	33.3
7	Banana	2.1	0.6	26.9	43.2	-4.0	28.8	3.0	20.1	20.9	-3.2
8	Pepper	9.6	26.7	34.5	24.9	1.5	27.5	0.7	99.7	7.1	4.7
9	Ginger	22.9	24.2	21.9	62.5	23.3	35.3	-14.5	-43.3	14.5	36.7
10	Turmeric	-0.7	35.6	-10.7	37.6	-11.8	80.8	-10.1	-22.3	13.7	73.8

32. Ratio of value of output and total cost expressed as a percentage from 2004-05 to 2013-14

[100 means parity in cost and output value, >100 means profitable, <100 means not profitable]

	Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Paddy- Autumn	119	115	121	96	129	132	113	126	120	113
2	Paddy- Winter	112	123	123	124	134	119	124	125	110	124
3	Paddy- Summer	103	115	123	101	125	106	134	120	121	123
4	Coconut	154	176	161	147	133	140	156	130	119	159
5	Arecanut	127	220	184	99	115	153	165	131	138	184
6	Tapioca	135	165	164	141	159	177	216	241	219	273
7	Banana	131	137	151	164	204	208	213	206	250	246
8	Pepper	127	137	172	141	135	143	122	215	232	211
9	Ginger	100	109	136	166	184	183	159	115	133	169
10	Turmeric	107	117	106	112	149	132	116	93	99	158

Note: The above estimate is considering all the 12 cost components including interest on fixed capital, interest on working capital and imputed value of household labour, but excluding interest on land value.

33. Crop wise rate of change in cost of hired human labour over the previous year from 2004-05 to 2013-14

	Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Paddy- Autumn	-8.8	2.5	9.5	-4.2	28.4	-3.5	32.3	10.5	-1.4	67.4
2	Paddy- Winter	-1.2	3.1	22.2	2.7	10.9	19.8	21.5	-9.0	12.6	22.0
3	Paddy- Summer	6.6	-1.3	16.2	7.1	12.4	13.1	10.5	30.1	-9.0	42.5
4	Coconut	5.2	0.8	7.9	5.2	16.6	16.9	15.3	7.9	29.4	8.5
5	Arecanut	39.8	-16.3	11.5	13.9	6.8	10.4	46.1	-8.2	-3.8	21.2
6	Tapioca	19.6	-27.9	29.5	17.6	6.1	7.1	34.3	2.4	-2.3	26.0
7	Banana	20.8	9.6	-13.0	43.6	-27.5	53.2	-7.3	21.0	14.2	10.2
8	Pepper	13.7	-0.7	-1.4	19.5	1.2	57.3	11.1	31.4	2.1	35.9
9	Ginger	-2.2	8.4	6.3	43.7	-3.1	37.7	-8.5	-9.8	6.5	16.4
10	Turmeric	43.3	-3.3	-14.5	24.3	2.6	44.1	1.7	29.9	-4.2	16.2

34. Crop wise rate of change in cost of machine labour over the previous year from 2004-05 to 2013-14

	Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Paddy- Autumn	1.5	1.1	4.4	11.1	29.5	36.2	25.3	-30.4	52.2	9.6
2	Paddy- Winter	6.8	-4.7	29.2	25.0	24.6	12.3	44.1	-28.4	27.0	15.2
3	Paddy- Summer	23.8	-6.4	7.8	20.2	34.1	21.7	20.7	-34.5	22.7	-21.3
4	Coconut	109.4	7.9	-77.0	215.5	-19.6	9.3	-17.0	-100.0		57.4
5	Arecanut	212.2	-30.5	-28.3	15.9	40.0	-33.1	-100.0			181.5
6	Tapioca	-24.5	-17.2	104.8	-31.3	93.9	34.8	-63.8	-100.0		170.1
7	Banana	105.0	-26.0	-75.1	302.9	127.2	-11.6	-81.0	-100.0		-73.0
8	Pepper		183.6	-66.0	17.0	-22.6	-10.4	-100.0			104.5
9	Ginger	72.6	153.6	54.5	-17.4	209.8	162.0	-50.1	-38.6	-14.8	-17.5
10	Turmeric	-97.9	219.9	-39.5	-63.4	-4.7	728.4	-63.9	-100.0		-23.4

Note: Blank box indicates that the machine labour is zero during the previous year.

35. Crop wise rate of change in cost of farm yard manure and chemical fertilizer over the previous year from 2004-05 to 2013-14

	Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Paddy- Autumn	-16.6	1.6	0.1	2.7	-6.2	3.5	1.8	21.1	9.7	48.4
2	Paddy- Winter	4.2	7.4	13.4	-6.7	9.2	19.2	17.7	6.6	27.5	4.1
3	Paddy- Summer	-4.3	19.7	-6.6	18.4	-8.2	3.4	24.4	-9.1	59.7	13.9
4	Coconut	4.2	5.9	-12.6	14.7	1.5	27.9	-6.9	-5.8	0.6	62.6
5	Arecanut	28.8	-13.5	-8.5	30.0	-14.1	17.0	6.1	-31.8	3.9	22.3
6	Tapioca	29.2	-17.5	18.1	-10.3	1.9	8.0	-6.6	22.6	70.4	-47.8
7	Banana	33.0	-4.6	-2.1	2.0	-20.7	16.5	7.7	37.6	2.5	-31.1
8	Pepper	-12.1	96.2	-44.2	24.8	15.3	3.3	25.9	-10.0	15.1	-4.6
9	Ginger	1.7	-28.7	-12.0	19.3	-0.2	73.1	-9.2	-24.4	-25.9	1.3
10	Turmeric	-31.7	68.3	-5.3	6.4	-18.8	42.9	-3.2	8.0	16.7	24.0

36. Crop wise rate of change in cost of seed/ seedlings over the previous year from 2004-05 to 2013-14

	Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Paddy- Autumn	-2.4	-13.4	3.1	16.5	3.1	23.7	-21.6	32.3	37.0	3.8
2	Paddy- Winter	3.2	-12.3	8.2	-1.3	24.1	6.1	33.7	-18.6	15.0	18.2
3	Paddy- Summer	-13.4	0.9	11.8	5.7	14.0	20.2	20.1	-11.4	20.6	20.9
4	Coconut	528.6	-80.3	3.8	148.1	240.3	-43.9	125.8	41.2	-45.8	97.7
5	Arecanut	-35.1	0.0	-100.0		-57.4	402.0	-81.7	528.9	28.6	29.9
6	Tapioca	19.2	-20.7	29.6	19.5	21.5	16.6	-3.2	23.8	24.3	18.4
7	Banana	69.7	6.4	-19.5	4.8	-3.5	27.4	1.1	12.5	6.7	53.6
8	Pepper	-87.1	-55.4	55.2	155.6	194.8	20.6	106.4	144.2	-85.0	-3.9
9	Ginger	11.7	46.3	-26.4	9.7	49.5	7.8	6.5	-21.4	6.6	22.0
10	Turmeric	32.8	-22.5	-7.6	26.7	-2.9	54.9	-8.8	48.3	-8.3	-2.0

37. Percentage share of each component to total cost of cultivation of Autumn Paddy from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	45.3	46.8	45.2	42.7	44.1	39.9	45.9	49.7	45.9	51.7
2	Animal labour	1.8	1.7	1.2	0.9	1.0	1.0	0.8	0.2	0.4	0.1
3	Machine labour	10.3	10.4	9.6	10.5	11.0	14.0	15.3	10.4	14.9	11.0
4	Seed/ seedlings	5.3	4.7	4.2	4.9	4.0	4.7	3.2	4.1	5.3	3.7
5	Farm yard manure & chemical fertilizers	13.8	14.1	12.4	12.6	9.5	9.2	8.2	9.7	9.9	9.9
6	Plant protection	1.6	1.5	0.7	1.0	1.7	1.4	1.5	1.1	0.5	0.5
7	Land tax and irrigation cess	0.3	0.3	0.4	0.2	0.7	0.5	0.4	0.3	0.3	0.2
8	Repair & maintenance charges of implements, machinery & building	1.6	1.2	2.8	2.5	1.4	1.7	2.3	3.2	2.1	0.5
9	Interest on working capital	4.2	4.2	3.9	3.8	3.9	4.0	4.0	4.0	4.2	4.2
10	Other expenses	5.3	5.7	4.8	3.5	7.1	10.5	5.8	4.6	6.6	7.7
11	Interest on fixed capital	4.9	3.6	8.0	12.5	8.1	5.1	4.8	2.7	2.7	2.4
12	Imputed value of household labour	5.7	5.7	6.7	4.8	7.4	7.9	7.8	9.9	7.2	8.0
	Total	100	100	100	100	100	100	100	100	100	100

38. Percentage share of each component to total cost of cultivation of Winter Paddy from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	46.3	46.8	47.5	44.4	43.1	43.4	44.2	43.6	42.4	45.5
2	Animal labour	1.8	1.9	1.3	1.1	0.8	0.4	0.5	0.3	0.2	0.3
3	Machine labour	11.0	10.3	11.0	12.5	13.7	12.9	15.6	12.1	13.3	13.4
4	Seed/ seedlings	5.9	5.1	4.6	4.1	4.5	4.0	4.5	3.9	3.9	4.1
5	Farm yard manure & chemical fertilizers	12.6	13.3	12.5	10.6	10.1	10.2	10.0	11.6	12.8	11.7
6	Plant protection	2.7	1.1	1.0	1.3	1.1	1.3	1.0	0.6	0.6	0.9
7	Land tax and irrigation cess	0.7	0.3	0.4	0.5	1.1	0.4	0.3	0.5	0.3	0.4
8	Repair & maintenance charges of implements, machinery & building	1.4	1.6	1.9	2.4	1.9	2.0	1.9	2.7	4.0	0.8
9	Interest on working capital	4.3	4.2	4.1	3.9	4.1	4.1	4.2	4.0	4.1	4.2
10	Other expenses	5.1	5.1	3.8	5.0	9.2	9.5	7.8	7.2	8.6	9.0
11	Interest on fixed capital	3.5	4.2	5.7	8.2	4.5	4.4	3.1	4.3	2.1	1.1
12	Imputed value of household labour	4.7	6.1	6.2	5.9	5.8	7.4	6.8	9.0	7.8	8.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

39. Percentage share of each component to total cost of cultivation of Summer Paddy from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	39.5	43.9	47.1	43.8	42.2	42.6	41.0	51.9	44.1	50.7
2	Animal labour	1.6	1.7	0.3	0.6	0.5	0.2	0.3	0.3	0.3	0.0
3	Machine labour	11.1	11.7	11.7	12.2	14.0	15.2	16.0	10.2	11.7	7.4
4	Seed/ seedlings	4.3	4.9	5.0	4.6	4.5	4.8	5.1	4.4	4.9	4.8
5	Farm yard manure & chemical fertilizers	10.4	14.0	12.1	12.4	9.7	9.0	9.7	8.6	12.9	11.8
6	Plant protection	2.9	1.7	3.2	2.2	2.7	2.6	2.4	1.5	0.6	1.0
7	Land tax and irrigation cess	1.4	0.9	0.6	0.6	1.1	1.3	1.5	0.8	0.3	0.3
8	Repair & maintenance charges of implements, machinery & building	1.6	0.9	0.7	1.2	1.0	1.0	1.2	3.0	3.0	0.9
9	Interest on working capital	4.2	4.2	4.3	4.1	4.2	4.2	4.2	4.1	4.2	4.1
10	Other expenses	14.8	5.9	6.2	6.4	10.5	9.8	9.0	5.3	7.9	7.3
11	Interest on fixed capital	2.9	3.2	3.5	5.5	2.8	3.0	3.1	2.6	3.0	1.1
12	Imputed value of household labour	5.3	7.1	5.4	6.5	6.7	6.3	6.5	7.4	7.2	10.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

40. Percentage share of each component to total cost of cultivation of Coconut from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	46.5	46.6	46.2	41.6	43.2	45.8	47.8	47.2	56.3	51.3
2	Animal labour	0.1	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0
3	Machine labour	1.9	2.0	0.4	1.2	0.8	0.8	0.6	0.0	0.4	0.5
4	Seed/ seedlings	0.6	0.1	0.1	0.2	0.7	0.3	0.7	0.9	0.5	0.8
5	Farm yard manure & chemical fertilizers	24.0	25.2	20.3	19.9	18.0	20.8	17.6	15.2	14.1	19.2
6	Plant protection	0.2	0.3	0.1	0.7	0.0	0.0	0.2	0.1	0.4	0.1
7	Land tax and irrigation cess	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.4	0.3	0.3
8	Repair & maintenance charges of implements, machinery & building	1.5	0.4	2.2	2.0	1.9	2.3	1.7	6.6	2.8	0.9
9	Interest on working capital	7.3	7.8	7.1	6.8	6.6	7.2	7.2	6.9	7.6	7.6
10	Other expenses	4.3	3.6	3.6	4.3	3.2	3.8	4.7	6.5	4.4	3.9
11	Interest on fixed capital	6.4	6.1	13.2	15.5	16.4	10.4	10.7	7.7	3.9	4.0
12	Imputed value of household labour	7.0	7.3	6.4	7.3	8.7	8.3	8.6	8.5	9.4	11.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

41. Percentage share of each component to total cost of cultivation of Arecanut from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	42.8	42.8	38.8	35.2	35.2	40.0	44.1	49.2	49.6	49.9
2	Animal labour	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Machine labour	3.2	2.7	1.6	1.4	1.9	1.3	0.0	0.0	0.4	0.8
4	Seed/ seedlings	0.1	0.1	0.0	0.2	0.1	0.5	0.1	0.5	0.7	0.8
5	Farm yard manure & chemical fertilizers	25.0	25.8	19.2	19.9	16.0	19.3	15.5	12.8	13.9	14.2
6	Plant protection	0.6	0.3	1.8	1.1	1.4	2.4	0.8	0.8	0.6	0.7
7	Land tax and irrigation cess	0.4	0.3	0.2	0.7	0.1	0.2	0.2	0.5	0.4	0.6
8	Repair & maintenance charges of implements, machinery & building	1.4	1.3	2.3	3.1	2.9	3.6	3.5	4.2	5.5	2.2
9	Interest on working capital	7.5	7.5	6.4	6.0	5.9	6.5	6.2	6.6	7.0	7.0
10	Other expenses	2.9	3.6	2.5	1.8	4.4	1.5	1.6	3.1	4.4	3.7
11	Interest on fixed capital	4.9	6.5	17.6	24.1	21.9	17.1	21.4	10.9	7.4	8.2
12	Imputed value of household labour	11.3	9.1	9.7	6.5	10.2	7.7	6.7	11.4	10.1	11.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

42. Percentage share of each component to total cost of cultivation of Tapioca from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	47.1	45.0	43.7	42.0	43.2	41.1	49.2	48.9	41.8	49.2
2	Animal labour	0.0	0.2	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0
3	Machine labour	0.9	1.0	1.5	0.8	1.6	1.9	0.6	0.0	0.6	1.4
4	Seed/ seedlings	2.6	2.8	2.7	2.6	3.1	3.2	2.8	3.3	3.6	4.0
5	Farm yard manure & chemical fertilizers	18.7	20.4	18.1	13.3	13.1	12.6	10.5	12.5	18.6	9.1
6	Plant protection	0.3	0.1	0.1	1.3	0.3	0.4	0.2	0.1	0.4	0.1
7	Land tax and irrigation cess	0.2	0.2	0.1	0.4	0.2	0.1	0.3	0.4	0.2	0.3
8	Repair & maintenance charges of implements, machinery & building	0.5	0.5	0.6	1.1	1.8	1.9	2.4	1.9	0.6	0.7
9	Interest on working capital	7.6	7.6	7.1	6.7	6.7	6.7	6.7	6.9	7.2	7.0
10	Other expenses	6.2	6.2	5.2	6.8	6.1	7.8	3.6	3.8	6.8	6.4
11	Interest on fixed capital	3.8	4.4	8.9	12.1	11.3	10.8	7.9	5.6	0.8	0.9
12	Imputed value of household labour	12.1	11.7	11.9	12.9	12.5	13.3	15.9	16.6	19.5	21.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

43. Percentage share of each component to total cost of cultivation of Banana from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	32.0	36.3	27.5	29.9	28.1	34.2	31.4	30.7	35.2	39.4
2	Animal labour	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3	Machine labour	1.1	0.8	0.2	0.5	1.6	1.1	0.2	0.0	0.5	0.1
4	Seed/ seedlings	12.2	13.5	9.4	7.5	9.4	9.5	9.5	8.6	9.2	14.4
5	Farm yard manure & chemical fertilizers	28.3	28.0	23.9	18.4	19.0	17.5	18.7	20.8	21.4	15.0
6	Plant protection	1.2	1.2	1.0	1.5	1.4	0.8	0.5	0.5	0.4	0.4
7	Land tax and irrigation cess	1.1	0.1	0.1	0.1	0.2	0.1	0.2	0.3	0.1	0.2
8	Repair & maintenance charges of implements, machinery & building	0.4	0.2	0.3	1.2	1.1	1.4	1.0	1.1	1.3	0.7
9	Interest on working capital	7.5	8.0	7.8	7.4	7.5	7.4	7.3	7.3	7.2	7.5
10	Other expenses	0.0	0.0	15.8	16.7	15.2	11.1	12.7	12.5	5.7	5.5
11	Interest on fixed capital	1.6	1.8	4.3	8.8	6.0	5.3	4.8	4.9	1.4	0.8
12	Imputed value of household labour	14.6	10.2	9.7	8.0	10.7	11.6	13.6	13.3	17.5	15.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

44. Percentage share of each component to total cost of cultivation of Pepper from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	53.1	44.8	41.1	32.4	30.9	40.5	38.1	44.1	45.3	53.6
2	Animal labour	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Machine labour	0.3	0.6	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.1
4	Seed/ seedlings	0.3	0.1	0.2	0.3	0.8	0.8	1.4	3.1	0.5	0.4
5	Farm yard manure & chemical fertilizers	16.0	26.7	13.9	11.4	12.4	10.7	11.4	9.0	10.5	8.7
6	Plant protection	0.2	0.2	0.5	0.4	0.4	0.4	0.6	1.1	0.5	0.4
7	Land tax and irrigation cess	0.3	0.4	0.3	0.2	0.1	0.1	0.2	0.4	0.4	0.3
8	Repair & maintenance charges of implements, machinery & building	1.2	0.5	2.1	3.0	4.8	3.4	4.5	3.9	3.8	1.5
9	Interest on working capital	7.2	7.4	5.8	4.6	4.7	5.5	5.4	6.1	6.2	6.7
10	Other expenses	2.0	1.8	1.6	1.8	2.8	2.3	2.8	4.2	4.9	4.1
11	Interest on fixed capital	9.1	6.8	18.0	34.8	30.5	23.5	21.0	14.3	12.3	1.9
12	Imputed value of household labour	10.3	10.7	16.4	10.8	12.4	12.7	14.5	13.9	15.5	22.4
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

45. Percentage share of each component to total cost of cultivation of Ginger from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	31.0	29.3	31.9	34.4	30.1	30.4	28.3	32.5	35.0	37.9
2	Animal labour	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Machine labour	0.4	0.8	1.3	0.8	2.3	4.4	2.3	1.8	1.5	1.2
4	Seed/ seedlings	22.6	28.9	21.8	17.9	24.2	19.1	20.7	20.8	22.4	25.4
5	Farm yard manure & chemical fertilizers	31.6	19.7	17.8	15.9	14.3	18.2	16.8	16.2	12.1	11.4
6	Plant protection	0.7	1.1	1.8	1.1	0.8	0.7	0.8	0.3	0.4	0.3
7	Land tax and irrigation cess	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2
8	Repair & maintenance charges of implements, machinery & building	0.3	0.2	1.4	1.5	1.3	0.9	1.1	2.5	2.9	1.0
9	Interest on working capital	8.6	8.0	7.8	7.5	7.6	7.8	7.4	7.6	7.7	7.9
10	Other expenses	0.0	0.0	3.4	4.4	4.0	5.2	5.3	4.6	6.1	2.9
11	Interest on fixed capital	1.9	2.5	5.2	8.2	6.7	6.0	7.9	5.0	2.0	2.2
12	Imputed value of household labour	2.6	9.4	7.6	8.1	8.5	7.3	9.3	8.5	9.6	9.6
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

46. Percentage share of each component to total cost of cultivation of Turmeric from 2004-05 to 2013-14

	Component	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Hired human labour	44.7	34.9	30.5	29.0	30.1	31.5	31.3	42.1	37.8	40.3
2	Animal labour	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
3	Machine labour	0.4	1.0	0.6	0.2	0.2	1.0	0.3	0.0	0.6	0.5
4	Seed/ seedlings	23.1	14.5	13.6	13.2	13.0	14.7	13.1	20.0	17.2	15.5
5	Farm yard manure & chemical fertilizers	13.3	18.0	17.4	14.2	11.7	12.1	11.5	12.8	14.0	15.9
6	Plant protection	0.1	0.5	0.2	0.2	0.1	0.4	0.3	0.9	0.3	0.3
7	Land tax and irrigation cess	0.2	0.1	0.1	0.1	0.3	0.7	0.3	0.4	0.2	0.3
8	Repair & maintenance charges of implements, machinery & building	0.3	0.2	1.3	2.0	2.1	1.7	4.0	1.9	3.2	1.6
9	Interest on working capital	8.3	7.2	6.4	5.9	5.8	6.2	5.8	7.9	7.5	7.7
10	Other expenses	1.0	2.6	1.4	1.7	3.5	2.0	1.8	3.3	4.5	4.5
11	Interest on fixed capital	2.7	2.6	11.4	15.8	15.6	14.4	9.5	2.7	4.1	3.0
12	Imputed value of household labour	5.9	18.4	17.0	17.8	17.7	15.2	22.1	8.0	10.5	10.4
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

47. Yearly average wage rate of agricultural labour in Kerala from 2006 to 2015

Figures in Rs.

Wage Type		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015*
Paddy Field Labour (Men)	Ploughing	233	266	290	337	370	427	504	587	632	671
	Bunding	159	177	200	232	273	333	391	465	511	536
	Sowing	148	159	175	204	244	299	354	427	467	497
	Spraying Insecticide	167	182	206	238	277	343	396	454	493	519
	Harvesting	152	163	186	224	263	320	375	463	512	538
	Others	154	171	196	225	270	331	385	466	526	569
Paddy Field Labour (Women)	Weeding	102	115	136	159	195	242	279	341	365	381
	Transplanting	110	123	142	163	196	241	279	339	371	387
	Harvesting	130	145	164	195	227	272	313	362	402	428
	Others	121	136	151	169	201	253	299	350	381	399
Other Agriculture labour (Men)	Ploughing of Garden Land	210	232	260	315	362	415	482	570	625	666
	Tilling of Garden Land	157	174	202	239	285	349	409	484	537	572
	Plucking of Coconut	275	314	340	372	419	492	547	612	694	744
	Others	159	175	203	236	283	347	409	483	524	562
Other Agriculture labour (Women)	Head Load	129	147	167	189	225	274	320	374	419	441
	Others	123	140	157	180	218	263	297	355	396	424

* Average of agricultural wages up to July 2015

48. Average farm wholesale price of important commodities in Kerala from 2005-06 to 2013-14

[Agricultural year, from July to June]

	Item	Unit	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	Paddy	Qtl	612	667	788	921	993	1178	1106	1460	1613
2	Pepper(D)	Qtl	5980	10731	12902	11476	13482	21047	31920	36257	49634
3	Ginger(D)	Qtl	6613	4158	5685	7732	10022	13009	6992	8973	14005
4	Ginger	Qtl	1271	1123	2055	3308	3364	3167	2043	4587	8056
5	Turmeric(D)	Qtl	3587	3009	2432	3669	7781	12960	6957	5953	6918
6	Banana	Qtl	1248	1334	1468	1565	1952	2104	2503	2946	3459
7	Plantain	Qtl	644	709	718	782	1609	1755	1874	2301	2742
8	Cashew	Qtl	2899	2464	3001	3686	3872	6104	5600	5019	6426
9	Tapioca	Qtl	433	470	520	556	588	972	895	931	1717
10	Mango (Raw)	Qtl	823	1001	1323	985					
11	Nutmeg	Kg				122	174	274	346	321	310
12	Coconut (WH)	100	495	473	486	544	463	762	775	613	1113
13	Arecanut	100	44	52	52	49	46	55	79	82	99
15	Sesamum	Kg				42	52	40	50		
16	Cloves	Kg				300	293	372	797	712	895

Source: Department of Economics & Statistics, Kerala

49. Population of cultivators in Kerala as per 2011 census

Sl No	District	Main Cultivators			Marginal cultivators			Total cultivators		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
1	Thiruvananthapuram	26756	22804	3952	12081	7703	4378	38837	30507	8330
2	Kollam	41467	37441	4026	15226	12035	3191	56693	49476	7217
3	Pathanamthitta	31590	28683	2907	9824	7814	2010	41414	36497	4917
4	Alappuzha	17805	15333	2472	7432	5346	2086	25237	20679	4558
5	Kottayam	42620	38673	3947	7371	5079	2292	49991	43752	6239
6	Idukki	85723	69676	16047	15194	7133	8061	100917	76809	24108
7	Ernakulam	41977	36158	5819	8446	5275	3171	50423	41433	8990
8	Thrissur	34791	28697	6094	6995	3920	3075	41786	32617	9169
9	Palakkad	59194	47813	11381	8611	4996	3615	67805	52809	14996
10	Malappuram	45710	42693	3017	11857	8829	3028	57567	51522	6045
11	Kozhikode	19905	17388	2517	6638	4401	2237	26543	21789	4754
12	Wayanad	46410	38861	7549	6349	3471	2878	52759	42332	10427
13	Kannur	30415	25055	5360	6134	3405	2729	36549	28460	8089
14	Kasaragod	20569	16271	4298	3163	1953	1210	23732	18224	5508
	KERALA	544932	465546	79386	125321	81360	43961	670253	546906	123347

50. Population of agricultural labourers in Kerala as per 2011 census

Sl No	District	Main Agricultural labourers			Marginal Agricultural labourers			Total Agricultural labourers		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
1	Thiruvananthapuram	55785	46146	9639	38685	25411	13274	94470	71557	22913
2	Kollam	56640	47716	8924	35553	27085	8468	92193	74801	17392
3	Pathanamthitta	35216	29909	5307	20239	14321	5918	55455	44230	11225
4	Alappuzha	39491	26826	12665	32215	16091	16124	71706	42917	28789
5	Kottayam	44783	35287	9496	18269	10511	7758	63052	45798	17254
6	Idukki	112391	65852	46539	33307	14214	19093	145698	80066	65632
7	Ernakulam	49419	34256	15163	21972	11649	10323	71391	45905	25486
8	Thrissur	54538	35788	18750	19403	9534	9869	73941	45322	28619
9	Palakkad	195394	104522	90872	54555	24829	29726	249949	129351	120598
10	Malappuram	81841	69919	11922	35564	26232	9332	117405	96151	21254
11	Kozhikode	37555	31343	6212	26643	15925	10718	64198	47268	16930
12	Wayanad	69133	44833	24300	32497	15760	16737	101630	60593	41037
13	Kannur	59228	37371	21857	23760	10989	12771	82988	48360	34628
14	Kasaragod	27722	19324	8398	11052	6352	4700	38774	25676	13098
	KERALA	919136	629092	290044	403714	228903	174811	1322850	857995	464855

51. District wise percentage of cultivators and agricultural labourers in rural area to total population of cultivators/ agricultural labourers in Kerala as per 2011 census

	District	Main Cultivators			Marginal cultivators			Main Agricultural labourers			Marginal Agricultural labourers		
		T	M	F	T	M	F	T	M	F	T	M	F
1	Thiruvananthapuram	82.2	82.2	82.5	75.4	77.2	72.4	72.3	71.7	75.3	71.8	69.9	75.6
2	Kollam	88.9	89.1	87.4	85.7	86.0	84.6	80.3	80.1	81.3	79.9	79.3	81.8
3	Pathanamthitta	97.0	96.8	98.3	96.5	96.3	97.5	95.2	95.0	96.3	96.2	95.8	97.2
4	Alappuzha	83.0	83.7	78.2	78.9	79.7	76.8	75.5	74.5	77.4	75.1	74.6	75.5
5	Kottayam	93.0	92.9	93.6	91.4	91.3	91.6	86.7	86.5	87.7	86.3	85.4	87.4
6	Idukki	99.3	99.3	99.7	99.6	99.4	99.8	99.1	98.8	99.6	99.3	98.9	99.6
7	Ernakulam	83.3	83.2	83.6	78.0	78.5	77.2	73.3	71.5	77.2	72.9	71.1	74.9
8	Thrissur	65.2	64.9	66.8	61.4	60.7	62.3	59.0	57.2	62.4	56.8	56.1	57.6
9	Palakkad	94.2	94.0	94.9	91.8	91.8	91.7	92.4	92.3	92.5	90.3	90.4	90.2
10	Malappuram	74.6	73.7	86.3	79.7	77.9	84.9	74.6	72.9	84.3	74.7	73.1	79.2
11	Kozhikode	75.9	75.6	77.8	66.3	66.1	66.7	58.3	57.6	61.5	55.4	55.3	55.4
12	Wayanad	99.6	99.5	99.9	99.7	99.7	99.6	98.7	98.7	98.8	99.2	99.0	99.3
13	Kannur	84.4	85.7	78.4	71.5	75.0	67.2	67.4	67.7	66.9	63.9	66.6	61.5
14	Kasaragod	88.1	87.8	88.9	84.2	84.4	83.7	76.9	77.7	74.9	78.5	79.0	77.9
	KERALA	88.4	88.2	89.6	84.1	84.0	84.2	82.8	81.1	86.3	79.9	78.6	81.4

52. District wise percentage of cultivators and agricultural labourers to total population as per 2011 census

Sl No	District	Total cultivators			Total Agricultural labourers		
		Total	Male	Female	Total	Male	Female
1	Thiruvananthapuram	1.2	1.9	0.5	2.9	4.5	1.3
2	Kollam	2.2	4.0	0.5	3.5	6.0	1.3
3	Pathanamthitta	3.5	6.5	0.8	4.6	7.9	1.8
4	Alappuzha	1.2	2.0	0.4	3.4	4.2	2.6
5	Kottayam	2.5	4.5	0.6	3.2	4.7	1.7
6	Idukki	9.1	13.9	4.3	13.1	14.5	11.8
7	Ernakulam	1.5	2.6	0.5	2.2	2.8	1.5
8	Thrissur	1.3	2.2	0.6	2.4	3.1	1.7
9	Palakkad	2.4	3.9	1.0	8.9	9.5	8.3
10	Malappuram	1.4	2.6	0.3	2.9	4.9	1.0
11	Kozhikode	0.9	1.5	0.3	2.1	3.2	1.0
12	Wayanad	6.5	10.5	2.5	12.4	15.1	9.9
13	Kannur	1.4	2.4	0.6	3.3	4.1	2.6
14	Kasaragod	1.8	2.9	0.8	3.0	4.1	1.9
	KERALA	2.0	3.4	0.7	4.0	5.4	2.7

53. Demand and consumption of pesticides in Kerala from 2012-13 to 2014-15

Unit in Tonnes

Item	2012-13		2013-14		2014-15	
	Demand	Consumption	Demand	Consumption	Demand	Consumption
Insecticides	117.76	260.83	175.09	555.01	488.73	326.96
Fungicides	448.22	411.13	370.02	477.19	429.46	401.05
Weedicides	24.54	22.46	20.21	140.36	126.32	165.10
Rodenticides and fumigants	0.16	0.53	0.47	1.07	0.97	1.42
Plant growth regulators	0.61	16.98	15.28	114.50	103.05	15.74
Others	0.00	0.07	0.06	0.00	0.00	0.00
Total	591.29	712.00	581.13	1288.13	1148.53	910.27

54. Crop wise consumption of pesticides in Kerala from 2012-13 to 2014-15 (in MT)

Crop	Chemical pesticides			Bio pesticides			Total			% of bio pesticide to total		
	2012-13	2013-14	2014-15	2012-13	2013-14	2014-15	2012-13	2013-14	2014-15	2012-13	2013-14	2014-15
Cereals (Paddy)	215.00	285.09	106.54	44.00	147.08	168.09	259.00	432.17	274.63	16.99	34.03	61.21
vegetables	43.00	104.12	101.77	95.00	79.59	159.01	138.00	183.71	260.78	68.84	43.32	60.97
Spices	328.00	2.29	344.53	90.00	2.60	159.69	418.00	4.89	504.22	21.53	53.17	31.67
Coconut	24.00	190.76	155.00	9.00	60.80	30.00	33.00	251.56	185.00	27.27	24.17	16.22
Arecanut	30.00	21.26	9.34	0.00	1.85	5.65	30.00	23.11	14.99	0.00	8.01	37.69
Banana	34.00	68.25	137.21	9.00	122.79	66.50	43.00	191.04	203.71	20.93	64.27	32.64
Total	674.00	671.77	854.39	247.00	414.71	588.94	921.00	1086.48	1443.33	26.82	38.17	40.80

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ABBREVIATIONS

<i>Acct</i>	<i>Accounts</i>
<i>BE</i>	<i>Budget Estimate</i>
<i>CSS</i>	<i>Centrally Sponsored Scheme</i>
<i>DES</i>	<i>Department of Economics & Statistics</i>
<i>GDP</i>	<i>Gross Domestic Product</i>
<i>GSDP</i>	<i>Gross State Domestic Product</i>
<i>Ha</i>	<i>Hectare</i>
<i>Kg</i>	<i>Kilogramme</i>
<i>M/o</i>	<i>Ministry of</i>
<i>MPCE</i>	<i>Monthly Percapita Consumption Expenditure</i>
<i>MT</i>	<i>Metric Tonne</i>
<i>NDP</i>	<i>Net State Domestic Product</i>
<i>NSS</i>	<i>National Sample Survey</i>
<i>NSSO</i>	<i>National Sample Survey Organisation</i>
<i>RE</i>	<i>Revised Estimate</i>
<i>TE</i>	<i>Term Ending</i>
<i>URP</i>	<i>Uniform Reference period</i>



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