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DYNAMICS OF PADDY CULTIVATION IN KERALA

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ABSTRACT

In recent years Kerala agricultural production is low level but it may be given a threat to Kerala food security. Kerala Economy is depending on central government share and other neighboring states like Tamilnadu Karnataka and Andhra Pradesh for the sustainable food balance. It gives us Kerala economy is deficit economy in every year. In India have passed the food security bill Loksabha in 2014 may reduce the state share, because the standard of living of people in Kerala is high comparatively other states in India. A lot of agricultural fields are filled for the developmental activities like metro rail, airport, and industries; housing plots, etc...The main agricultural production district in Kerala is Palakkad and Alappuzha. Large number of cancer patients is in Kerala due to the cause of poisoned foods in other states. Rice production in Kerala has given declining tendency to the recent year 2012-13 is 6%. Main important causes for the declining tendency of rice production in Kerala were low price in output has given to the farmers and there was not profitable because Kerala climate has no similarity in each and every year. Government has not given a serious intervention to rice production.

KEY WORDS: Paddy Cultivation, Prices Of Rice, Farmers Problem, Agriculture, Labour,

INTRODUCTION

Paddy cultivation was part of the proud culture of Kerala state. Rice is the most important cereal and staple food produced and consumed in Kerala. In Kerala, you can see vast green paddy fields. Kuttanad is called as rice bowl of Kerala because of rice cultivation. Trissur and Palakkad are the other two places in Kerala where large scale cultivation is done. According to the state planning board, Kerala lost over 5, 00,000 hectors of paddy fields

between 1980 and 2007. But due to serious intervention of Kerala Government in the year 2010, 1500 hectors of land kept follow for 2 - 5decades brought under cultivation, paddy production increased by 1.25 lakh tons, upland paddy cultivation started in another 1000 hectors. Kerala government has implemented novel schemes under food security programs for special rice production areas like Kole, Pokkali, Kuttanadu, Onattukara,Purakkadkari, Kuttampalli, Palakkad, etc... In the earlier days rice used to be cultivated almost in all parts of Kerala in three seasons. They were mundakan, virippu and puncha. Since agriculture has a very important role in Kerala economy. It is essential to have a clear picture of the performance of agriculture in the past and present for the proper understanding of the economy. Despite the fact that Kerala produces only for less than its annual requirement of the rice thereby remaining a deficit state, the area under paddy cultivation has been continuously declining at an alarming rate over the years. Most of them are not entering deeply into the real problems. Since the mid-seventies and much effort were not made to isolate the prime reasons behind the poor performance of paddy fields at micro level.

REVIEW OF LITERATURE

There are a lot of studies of paddy cultivation in Kerala. Some of the literature is reviewed here.

Prakash (2008) pointed out that Palakkad district is largest paddy cultivating district in Kerala, has found that the problem faced by the farmers was the acute shortage of labour and increase in wages of farm workers. As the major share of the paddy cultivation depended on hired labour ; youth especially those having school education considered the agriculture work is a dirty job.

Prabhakaran(2009) has discussed that Palakkad called the rice bowl of Kerala, accounted for nearly 50% of paddy produced in the state during 2008-09. During 2007-08, its share was 46%. The increase is attributed to a rise in the area of cultivated land and productivity, said to be the results of decade-long salient revolution initiated by local bodies, government agencies, and farmers. The development of eight high yielding varieties from paddy from near extinct traditional varieties of Palakkad being to be double production the author said.

Agriculture department of Kerala has state that climate based crop insurance will be provided for paddy crop in Palakkad district during rabbi season of 2009-2010. 75 % of the premium for paddy cultivation will be given as subsidy. Paddy cultivation can be insured for a maximum amount an acre. The Premium excluding subsidy and including subsidy and including service tax, which paddy cultivators should remit Rs 177 an acre. The paddy cultivation will get insurance cover for temperature, wind and rain at level that are detrimental to it.

Prabhakaran and harikumar have revealed that Kerala's agriculture is in crisis today. Nearly 1500 farmers have committed suicide in the last five years, mainly in wayanad and Palakkad; the two farms dominated backward districts. In the rice bowls of the state Palakkad and kuttanad is alarming declining in the extent of area under paddy cultivation. According to economic and statistical department, totally paddy cultivation in Kerala is 3,10,521 hectares, in Palakkad it is 1,15,910 hectares in three seasons. The drop in paddy cultivation is because farmers don't find it remunerative.

STATEMENT OF PROBLEM

Land can used for several proposed and allocation of land among literature uses is a complex economic problem since population pressure is very high and percapita availability of land is used very low. The pattern of land used at any particular time is determined by physical, economical and institutional frame work together. Further, the land use is determined the population. During the past three decades, the gap between internal production and requirement of paddy in the state has been widening. The gap between demand for and supply for paddy in the state give rises to the problem of importing food grains which is unsafe from the economic point of view. Hence it is very important to revitalize the paddy sector of the state. Recovery of the paddy sectors is also important on many other grounds like providing employment and income to the people. Thus development of the agricultural sector is considered to be a necessary condition for the overall progress of a developing country. Agricultural development in Kerala, in spite of all measures remains stagnant and paddy sector of the state economy has been showing declining trends both in area and production since mid-seventies.

SIGNIFICANCE OF THE STUDY

Palakkad district and Kuttanad is known as the granary of Kerala state. Paddy is the principle crop here and it is cultivated in three seasons viz..., autumn, winter and summer. Being one of the interior districts of the state, Palakkad is geographically unique in many aspects. The continuity of the majestic Western Ghats which stretches over 1000km is broken at Palakkad district known as Palakkad gap with a width of 3.02 km. The climate of the district is greatly influenced by the gap, as it enables the north east winds, to blow spreading its wing throughout the breadth of the Ghats. Since the districts gets the benefit of south west and north east winds. Rainfall is heavy in both seasons and consequently Palakkad district has got extensive paddy fields and it is aptly known as the granary of Kerala. To the west this region are the plains broken here and thereby Bharathapuzha and tributaries. There are extensive paddy fields in this track. There are neither low lying areas nor seasons embracing the district. In the present scenario it is difficult to do rice cultivation in the state due to high labour cost and shortage of labour mechanized transplanting is attracting more and more paddy farmers in Kerala. By adopting good quality seeding's, adequate use of organic manure, integrated water and pest management Kerala farmers can increase rice yield and thereby profit from it. Also paddy fields are being converted into filled up land. Paddy fields are slowly diminishing from Kerala, creating threat to food security of state. For conversion of paddy fields, Kerala government had made law to stop filling the paddy fields for uses like construction, cultivation of cash crops like rubber, coconut tree etc... There has been an unprecedented hike in the price of rice over Kerala for the last three years. Price of rice in the open market reached approximately Rs.34- 40 per kg in 2014 November.

METHODOLOGY AND SOURCE DATA

This study is mainly focused in Kerala state, the primary and secondary data are used for this study. Primary data is related with interview of the farmers. Major sources of secondary data used in this study are the publications of the State Planning Board (SPB), Department of Economics and Statistics (DES) of the state government earlier known as the Bureau of Economics and Statistics (BES), Kerala Agricultural University, Rice Research Centre, Kerala Sasthra Sahithya Parishat etc.

Census Survey Reports, village office records, data collected by the krishibhavan for local level planning, research papers, articles and various Commission Reports are also used in this study.

OBJECTIVES OF THE STUDY

The important objectives of the present study are:-

1. To examine the economics of paddy cultivation in Kerala.
2. To identify the determinants of shifting
3. To identify the current problems faced by paddy cultivators

Keeping the above objectives in view, the present study focuses on examination of the following aspects of the study

1. Cost and price of the study.
2. Comparative profitability of paddy and substitute crops.
3. Conversion of paddy fields to other purposes.
4. Farm size and productivity relationship.

SCOPE OF THE STUDY

The scope of the study is relates with;

1. The research study is help to improve the agricultural production in Kerala.
2. The analysis of the agricultural production is given to more importance from government policies.
3. The research findings more helpful to the farmers in Kerala.

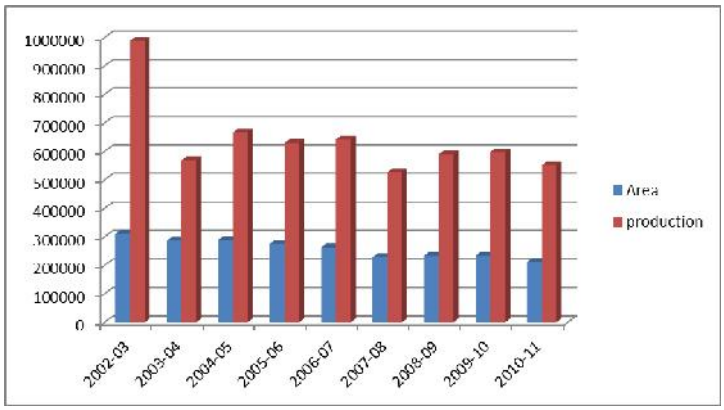
REVIEW OF RICE PRODUCTION IN KERALA

In order to increase food production in the state, a major food security project was launched in 2008-09 covering rice, milk and egg. As part of the project, regional sub-projects were launched with additional incentives, interest free loans, project based support for fallow land cultivation and a package of support measures. The procurement price was also enhanced to Rs.13 per kg and further to Rs.15 per kg. A modernization programme for lift irrigation was also initiated as part of the food security project and Malabar Package. A rehabilitation project on ponds was also initiated recently, as part of state food security project. From 2008-09 to 2009-10, area under paddy remain constant as 2.34 lakh ha. During 2010-11, the area under rice declined to 2.13 lakh ha and the production of rice also declined to 5.22 lakh MT from 5.98 lakh MT in 2009-10.

Table-1, Area, production, and productivity of rice in Kerala and India

SL NO.	Year	Area(ha)		Production (MT)		Productivity (kg/ha)	
		Kerala	India	Kerala	India	Kerala	India
1	2002-03	311000	40410000	689000	75720000	2218	1874
2	2003-04	287000	42496000	570000	88280000	1984	2077
3	2004-05	290000	41665000	667000	85310000	2301	2047
4	2005-06	276000	44258000	630000	91790000	2285	2074
5	2006-07	264000	43810000	642000	93360000	2435	2131
6	2007-08	229000	43900000	528000	96700000	2308	2202
7	2008-09	234000	45600000	590000	99400000	2520	2177
8	2009-10	234000	41920000	598000	89090000	2557	2125
9	2010-2011	213187	42560000	522758	95330000	2452	2239
10	2011-2012	208160	43970000	568993	102570000	2733	2337
11	2012-2013	197277	42410000	508299	104399000	2577	2462

Figure 1, Graphical representation of area, production of paddy cultivation



The average annual decline in area under rice during the Eighth Five Year Plan was around 22000 ha, whereas it has come down to an average of 13000 ha during the Ninth Plan period. The average annual reduction in area during Tenth Plan was 47200 ha. During 2007-08, decline in area was to the tune of 229000 ha from 2.64 lakh ha. In 2007-08 to 2.29 lakh ha and rice production declined from 6.42 lakh MT to 5.28 lakh MT, and then increased to 5.90 lakh MT in 2008-09, indicating at 11.74 percent increase over the previous year. The area under rice increased to 2.34 lakh ha in 2008-09. During 2009-10, there was a slight reduction in area by 252 ha only over 2008-09, while production increased by 8098 MT. The deviation in area and production of rice in the major districts of Kerala during 2009-10 over 2008-09 (%) is shown in table. The average productivity which was stagnant at around 2.2 MT/ha for four years, till 2005-06 has improved to 2.4 MT/ha in 2006-07 and slightly declined to 2.31 t in 2007-08 and further improved to 2.56 t in 2009-10.

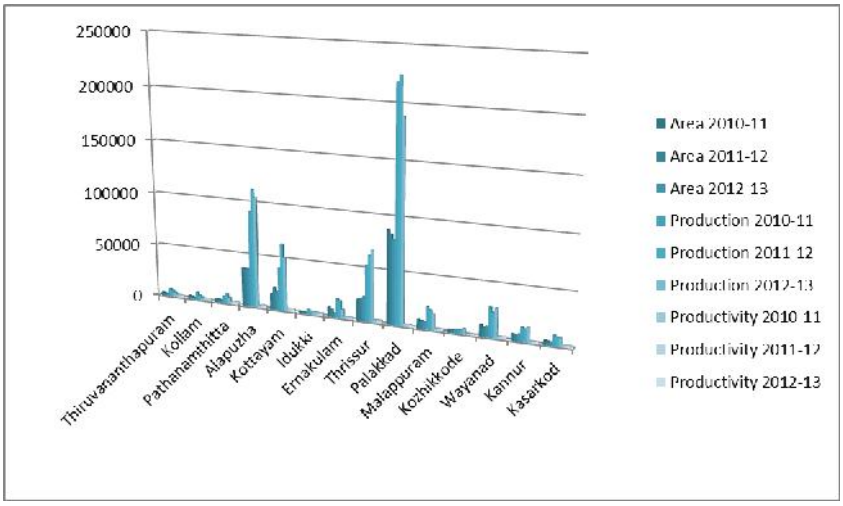
Table-2, District-wise area, production and productivity of rice in Kerala

		Area			Production			Productivity		
SL No.	Districts	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
1	Thiruvananthapuram	2919	2395	1816	6923	6139	4096	2372	2563	2256
2	Kollam	3342	2097	1387	7155	4768	2928	2141	2274	2111
3	Pathanamthitta	2986	2802	2280	6628	8989	6041	2220	3208	2650
4	Alapuzha	37060	36251	36195	91325	111980	104593	2464	3089	2890
5	Kottayam	14775	21410	17571	40970	63579	51019	2773	2970	2904
6	Idukki	1819	1264	1176	4744	3135	3183	2608	2480	2707
7	Ernakulam	9016	7731	3940	17823	16572	8533	1977	2144	2166
8	Thrissur	20259	21172	23098	53079	62316	67569	2620	2943	2925
9	Palakkad	87511	83998	79201	218155	224413	189229	2493	2672	2389
10	Malappuram	8949	7528	6674	21089	18577	15377	2354	2468	2304
11	Kozhikkode	3003	2920	3511	3814	4274	5326	1270	1464	1517
12	Wayanad	11054	8995	10230	27911	23526	28052	2525	2615	2742
13	Kannur	6339	5740	6684	13308	12170	14237	2099	2120	2130
14	Kasarkod	4155	3857	3514	9834	8555	8116	2367	2218	2310
	State	213187	208160	197277	522758	568993	508299	2452	2733	2577

Source: Directorate of economics and statistics

The following may be given status if rice production in kerala. Thrissur district is the only which may be increasing rate of area, production and productivity of rice in recent years like 2010-11, 2011-12, 2012-13. In 2010-11 the area is 20259, production 53079000 MT so the productivity is 2620. The highest district was area of cultivation in 2010-11 is Palakkad

87511 hectare and least area cultivation is idukki 1819 hectare. At this time the production is also Palakkad has highest one 218155000 MT and least one is Kozhikode 3814000 MT. The highest productivity of these year is kottayam because it has various irrigation facilities are available than the Palakkad district. In 2011-12 the largest area of cultivated in rice is Palakkad 833998 hectare but was shown the declining area of rice cultivation and least area cultivated is idukki 1264 hectare and highest level of production in rice is Palakkad 224413000 MT and least one is idukki 3135000MT but the productivity is changed pathanamthitta has get highest place 3208 and Kozhikode is last one 11464. The latest 2012-13, the highest area of rice cultivation is 79201 hectare and lower is idukki 1176 hectare, the production level is Palakkad district has keeps the highest 189229000 MT and lowest one is Kollam district 2928000MT. The productivity level of the Palakkad and Alappuzha they are known as granaries of Kerala also have been decreasing in area, production and productivity of rice in every year. It was given food insecurity in Kerala.



CAUSES FOR THE DECLINING PADDY CULTIVATION IN KERALA

The following are the important causes of the declining trend of paddy cultivation in Kerala.

1. Seasonal shortage of labour supply:-

Compared to garden crops and plantation crops, paddy cultivation is more labour intensive. It is estimated that human labour costs amount to nearly 60 percent of the total costs involved in paddy farming. Present investigation shows that household members of 60 percent of the sample farmers in the study area do not perform any sort of manual works in their fields. It is also found that 33 percent of the marginal farmers, 67 percent of the small farmers, 80 percent of the medium farmers and 83 percent of the local farmers are exclusively depending on hired human labour. According to a vast majority of paddy farmers in this area the single biggest problem they are facing is the non-availability of sufficient farm labourers during the harvesting season.

2. Small size of holdings and decline in the number of full time farmers:-

It has been pointed out that an agricultural household with 5 to 6 member needs at least 10 acres of paddy fields for its sustenance in the absence of any other source of income. However, in Kuttanad only 3 percent of the farmer households possess that much

land46. As per the provisions of the Land Reforms Act (1969) the maximum area of paddy fields that a family can possess is restricted to ten acres. The excess land above the ceiling is declared as surplus and taken over by the government for redistribution. The redistribution of such surplus paddy lands taken over from large enterprising farmers in Kuttanad led to the formation of a new class of absentee land owners with less than one acre of paddy fields. Unable to conduct paddy farming successfully in their newly acquired fields, at present many of them lease out their lands to tenant farmers defeating the very purpose of land reforms.

3. Lack of Proper Marketing System:-

Wide temporal variations are observed in the price of paddy in Kuttanad area. Compared to non-harvesting season farm price of paddy decreases considerably during the harvesting season. In order to clear their debts and due to the lack of storage facilities a vast majority of the paddy farmers in the study area sell their marketable surplus of the product immediately after harvest at the then prevailing low prices. Nearly 85 percent of the marginal and small farmers, 73 Percent of medium farmers and 58 percent of large farmers in the study area have no granaries to store paddy.

4. Low level of profitability:-

There are three major factors that affect the profitability of rice cultivation in kerala such as cost of cultivation, yields levels and prices. Labour costs are relatively high. At this time the expenses involved in agriculture inputs are equally large burden of all farmers. The new economic policy helps to increase the price of pesticides and agricultural inputs, and the labour costs in kerala is very high comparatively in other states in India. Insufficient labours make more demand for labour it may induce the rise in wage of the labour.

5. Growing aversion of new generation to paddy cultivation:-

Some decades back in Kerala the upper class and middle class family is considered the ownership of paddy fields as a symbol of their social status, owners of the paddy fields commanded much social respect and acceptance. However, the present rice cultivation has lost its glamour. The new generation people from farmers households looking for the white collar job

6. Pressure of population on land:-

There is a heavy pressure on land. In fact since the non-agricultural sectors of the economy have not been able to expand at a sufficiently rapid pace of last five decades, this pressure has continuously increased. Increasing pressure of population on land is partly responsible for the subdivision and fragmentation of small uneconomic holding is now low.

7.Inadequate irrigation facilities:-

Productivity is bound to be low in all those areas which lack irrigation facilities, and are totally dependent on rains. Palakkad is the example of this because in summer there was no irrigation facilities are available in agriculture.

SUGGESTIONS

Based on the this researcher has suggested the following

1. As the shortage of labour is the primary problem in paddy cultivation, mechanization the paddy fields may help to increase the paddy cultivation.
2. Subsidized high yielding variety seeds will improve the production. Hence both the farmers as well as government have to consider more on promoting the same in the state.

3. The price of the paddy should be increased to a reasonable level, which makes the farmers to cultivate paddy to a great extent.
4. The farmers also have a broader look regarding the fall of paddy production and engage in paddy cultivation intensively.

CONCLUSIONS

Rice cultivation in Kerala state is falling down over a period of time. The major causative factor identified by the social scientists is labour shortage and low price of paddy. This statement has been proved in this study. Though the fertile of soil, favourable monsoon, and government policies have been helped the farmers they have not completely engaged in paddy cultivation as it requires timely manual work. This needs more human labour, which is only problem in the farmers. And hence, mechanization, or participation of human labour alone will increase the paddy production in the study area.

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