

# A profile of the socio- economic conditions of the farmers in Kuttanad

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## Abstract:

Farmers in the state like Punjab and Haryana are well off when compared with the farmers of Kerala. There the farmers are rich landlords and economically their condition is good. In Kerala generally farmers are poor having land ownership below five acres. They depend on bank finance to cultivate their land. There is a saying that farmers are born in debt, lives in debt and dies in debt. Most of the farmers are marginal and small farmers depending heavily on governmental help to maintain their farming. The new generation is not interested in farming because of its low profitability. The social status depends on the economic conditions and the educational level attained by the people. The young generation is not willing to undertake farming mainly because of the problems faced by agriculture.

Agriculture in Kerala depends on the whims and fancies of nature. The climate conditions and weather are uncertain. Young generation is attracted by the other sectors and even by jobs in other countries leading to migration. Migration leads to labour shortage in farming. The complexity of circumstances lead to a thorough change in the social and economic conditions of the farmers in Kerala. The following analysis helps us to understand the social and economic changes that occurred to the farmers in Kerala.

**Keywords:** Agricultural Development, Paddy Cultivation, Social - Economic conditions, Migration, Scarcity.

## 1. Introduction

Indian farmers have faced a great change in their lifestyle, mode of work, use of equipments, education, and in their standard of living from time to time. Kerala being the cent percent literate state in India , Kerala's model of development is compared with the development of India.

The social and economic conditions of the farmers in Kerala underwent a lot of changes. The standard of living and the social status of Kerala farmers are better off compared with the past. This is only one side of the aspect. On the other hand, Kerala farmers face a large number of problems even now. They need help from the government to maintain their farming business. The following analysis help us to understand the measure taken by the government in helping the farmers and also the various changes in the social and economic conditions of the agriculture.

## 2. Objectives of the study

1. To examine the trend in paddy production for the last two decades.
2. To examine the socio and economic change of the farmers of the area.
3. To find out the remedies for the problems faced by the agricultural farmers

## 3. Area and Production of Paddy Cultivation in Kerala and India

Paddy is the principal crop extensively cultivated in all the districts of the state. Paddy cultivation has a unique three season pattern viz Autumn (July- October), Winter (November – February) and Summer (March – June). The production of rice increased from 436483 tonnes to 521310 tonnes over the previous year which shows an increase of 19.43%. The yield rate of rice is 2757 kilogram/hectare against the previous year of 2547 kilogram/hectare. The productivity of rice in autumn, winter and summer seasons were 2555, 2699, 3088 respectively. The productivity of rice in autumn season was highest in Alappuzha district and lowest in Pathanamthitta district. In winter the highest productivity was in Thrissur district and lowest in Kozhikode

district. In summer season the productivity was highest in Malappuram district and the same was lowest in Kannur district. As usual, Palakkad district occupied the first position in the production of rice and lowest production was in Idukki district. The season wise area, production and productivity of rice are furnished below (GOK, 2017- 18).

Paddy cultivation is the main agricultural activity in Kerala. It is the major source of the supply of the State's food grain. The State achieved 50 percent self-sufficiency in the production of rice in 1972-73, even though, the area and production of paddy in Kerala continues to decline over the years.

In the review of the performance of paddy cultivation in India and Kerala during the period 1960-61 to 2013-14, the productivity of rice cultivation has increased from 1111 kg per hectare in 1960-61 to 2425 kg per hectare during 2013-14 at the national level. For the state, it has improved from 1371 to 2828 kg during this period. So there has been significant improvement in the yield of rice in the recent years.

According to district wise analysis of paddy area during the year 2013-14, the first position in paddy cultivation in Kerala goes to Palakkad where 82,896 hectares of area comes under paddy cultivation. This accounts for 41.5 % of paddy area in the state. Its cultivated area increased 4.6 % from 2012 to 2013. Alappuzha holds the second position in paddy cultivation, where 37,403 hectares of area comes under paddy cultivation. This accounts for 18.7 % of paddy area in the state. There has been an increase of 3.3 % in paddy area in Alappuzha during 2012 to 2013. Trissur and Idukki districts hold third and fourth positions respectively in paddy cultivation in the state<sup>1</sup>.

### 3.1 The Area, Production and Productivity of Rice cultivation in Alappuzha District -during the period 2000-01 to 2010-2011.

The total area under paddy crop in Alappuzha district during the year 2000-01 was 37740 hectares. In the same year this region produced 103544 tonnes of rice. In that year the state could also retain its relatively better position in rice productivity at the all India level. In 2005 the area under paddy cultivation was very low compared to the other years. This was mainly due to the scarcity of labourers in the previous cultivation year. So in that period large areas of paddy land was not harvested. Then after the introduction of harvesting machines , there has been significant increase in the area of paddy land.

**Table 1: Area, Production and Productivity of Rice cultivation in Alappuzha District**

Year	Area (in ha.)	Production of Paddy (Ton)				Productivity (kg/ha)
		Seasons				
		Autumn	Winter	Summer	Total	
2000-01	37740	16384	31207	55953	103544	2743
2001-02	33111	2390	47741	22668	72799	2199
2002-03	29635	9467	53102	28992	91561	3090
2003-04	32083	11736	30092	21180	63008	1963
2004-05	32158	18345	32466	27680	78491	2441
2005-06	28768	16555	43429	11764	71748	2494
2006-07	31059	22287	40111	27762	90160	2902
2007-08	33335	14128	21366	26776	62270	1868
2008-09	34143	26254	21999	55997	104250	3053
2009-10	33440	28912	22672	46392	97976	2930
2010-11	37060	23856	9235	58234	91325	2464

<sup>1</sup> State of Indian Agriculture, 2015-16; Government of India Ministry of Agriculture & Farmers Welfare Department of Agriculture, Cooperation & Farmers Welfare Directorate of Economics and Statistics, New Delhi.

Source: Directorate of Economics & Statistics, Panchayath Level Statistics-2011 Alappuzha District. Census of India 2011, District Census Handbook, Village and Town Directory, Alappuzha

Here the table shows that during 2010-11, the cultivated area for paddy was 37060 ha. of land producing 91325 tons of rice, whereas the State production of paddy was 910713 tonnes. The share of the district towards paddy production was 16.37 per cent of the State production. During 2000-01, cultivated area for paddy was 37740 hectare of land and produced 103544 tonnes of rice, while the production of paddy in Kerala was 751328 tonnes. The share of this district towards paddy production was 13.78 per cent of the state production.

#### **4. The reason for decrease in paddy cultivation**

There are different factors which led to the decline of paddy production in Kuttanad. For the convenience of study the factors are divided into two, they are social factors and economic factors.

##### **4.1 Social factors**

###### **a. Seasonal shortage of labour supply**

Paddy cultivation was a labour intensive activity in Kuttanad. The introduction of different policies of Government enabled the development of agricultural labourers. Thereby they shifted to other areas for doing different works. So during the paddy cultivation period, there was serious shortage of agricultural labourers in Kuttanad. Today farmers introduce some essential machinery to facilitate timely operations in the context of decreased labour supply. But even today there is a need for labourers for doing different activities. So this was one of the important causes for the decline in paddy production in Kuttanad.

###### **b. Land Ownership**

There is wide inequality in the distribution of land holdings. A few minority including, money lenders and big businessowners hold large plots of land. Majority are having small and uneconomic land holdings. So cultivation is not profitable to them.

###### **c. Decline in the number of full time farmers**

The scarcity of agricultural labourers resulted in increasing cost of production of paddy cultivation in Kuttanad. The erroneous Government policies like lack of commensurate price for production of rice in the cultivated period pushed farmers towards debt. This is the major reason for many farmers leaving cultivation, thus, leaving the land uncultivated. Small farmers with less than 0.5 ha of land, find it difficult to stay in paddy production. In other parts of Kuttanad the yield is much higher i.e. 4.5-5.0 ton / hectare. Their house is away from the farm land and hence they are not able to use their family labour [Swaminathan, M.S. 2007].

###### **d. Small uneconomic size of land holdings and excessive fragmentation**

An important factor which contributed to the decline in paddy production is the implementation of the land reforms. It created acute shortage of labour and redistribution of surplus land to the land less people substantially declined the size of many holdings. It made paddy cultivation economically unsustainable.

###### **e. High incidence of crop failures**

Paddy cultivation activity is a gambling activity of nature, especially gambling of monsoon. There are various factors which has an impact on the productivity of paddy. They are weed growth, attack of pest, disruption of bund, diseases affecting the plants etc. These are the main problems that affected the paddy cultivation in Kuttanad.

#### f. Insufficient research and extension services

There is a need for proper research to be conducted on how to increase production of rice in Kuttanad. The existing research works are not properly utilized by the higher authority. They must apply the research proposals for the development of paddy cultivation. But truth is that these proposals are closed chapters and there is no practical application of these proposals. Even though some *Krishibhavans* do not have proper records on important details related to farming, majority of them followed old data i.e., based on 2001 census. The higher authorities should take note of such irresponsibility on the part of public servants.

#### g. Increased trade union militancy

The trade union activities always protected the agricultural labourers. They did not take care of farmers. This attitude always created disputes between them. The trade union is very strong in Kerala, especially in Kuttanad, so day by day they forced the farmers to increase wages of agricultural labours. The wages for different states are mentioned in the next chapter. So the farmers reduced their farming activities because of the increasing labour cost.

#### h. New generations are not interested in farming

Different Government policies increased the standard of living of the agricultural labourers in Kuttanad. So even though they have no work, they are not interested in doing agricultural activities. And also their parents are not willing to allow their children to work as agricultural labourers. All of them like white collar jobs. This attitude created scarcity of agricultural labourers in Kuttanad.

#### i. Pressure of population on land

Density of population is very high in Kuttanad. As a result more labour is available compared to the availability of land. So labourers often migrated to other areas in search of jobs. This has contributed to decrease in the availability of labourers in doing paddy works in Kuttanad.

#### j. Climatic condition

The poor climatic conditions also reduced the production of rice. Kuttanad is situated below sea level. When rain starts, paddy fields become water logged. Unpredictable rains damage the bund and affects the growth of paddy. If rain falls in the final stage, harvesting with the help of machine is not possible because it is wet in the fields. So farmers use labourers for harvesting in such a situation. The labour cost is very high in Kuttanad, so the cost of production is very high in such circumstances for farmers. Some farmers will definitely reduce or may not take up farming in the next season. The frequent crop loss from floods and cheap compensation paid for crop loss makes rice farming a loss in the long run.

### 4.2 Economic factors

#### a. Increased cost of inputs and its low level of profitability

An important factor contributing to high cost of production is the cost on the infrastructure for paddy cultivation. Kuttanad has a strong outer bund, built under Kuttanad Package Scheme. The construction of outer bund is not complete. So the construction of this bund helps in *kayal* cultivation. The construction of inner bund is enough for every season and other works like repair of breaches, construction of motor *thara* or foundation, pump house

and *vachals* was done in every season. This cost occurs to farmers in every season. It varies every season. The growth of weed is another major cost component for farmers. They cannot predict its growth. Sometimes it is very high, and sometimes it is very small. So the growth of weed reduces the profit of farmers.

The expenditure for hiring agricultural labourers is very high in Kuttanad compared to other areas. The main problem is scarcity of labour in Kuttanad and it affects the small and medium farmers. However, shortage of labour during peak operations is facilitating entry of machinery. The next cost item is the operational cost for machine and the cost for using machinery is fixed by Government. But it varies according to the nature of paddy land and its distance from the main road. The expenditure for pesticides and fertilizers also varies in every harvesting season. And last cost item is transportation cost. Transportation cost varies according to *kayalsekharams* and *padasekharams*. The expenditure for *kayalsekharams* are very high compared to *padasekharams*. Since profitability is low, the farmers in Kuttanad are not interested in paddy cultivation. The profit level is narrow. Farmers avoid or reduce paddy cultivation, thereby leading to decline in paddy cultivation in Kuttanad.

#### **b. The growth of real estate business**

The paddy cultivators turned towards real estate business, which was less risky compared to farming. As a result paddy cultivation declined in Kuttanad.

#### **c. The high job opportunities**

As a result of high job opportunities in the private field the presence of youngsters in farming occupation declined.

#### **d. Lack of proper marketing system**

The marketing system for agricultural products was poor. The State government announced the Minimum Support Price for all farmers applicable to the crop season. They do not get money on time due to administrative and coordination deficiencies. As a result there is less interest in taking up paddy cultivation in Kuttanad.

#### **e. High remittance from abroad**

As a result of high job opportunities abroad farmers and labourers have been giving up farming and taking up jobs abroad. This has resulted in decline of paddy cultivation in Kuttanad.

#### **f. Development of construction sectors**

The development of construction sector opened up new areas of employment in the nearby towns of Alappuzha districts. The agricultural labourers found a lucrative avenue for jobs not far from their homes. As a result a large number of agricultural labourers gave up farm labour and shifted to the construction sector. Due to this there is scarcity of labour in Kuttanad. Similarly farmers shifted to construction field because of scarcity of labour, high cost of labour etc. As a result of which there was a decline in paddy cultivation.

#### **g. Governments laziness about funding paddy price**

The Government is often lazy in providing incentives to farmers. The farmers often take big loans for conducting farming. The Government doesn't release the funds on time, this creates huge losses for the farmers. It will be good if the Government takes step for marketing paddy without delay.

The area under production of rice has decreased over the years. This is mainly due to the some economic and social factors. One problem is related to the efficiency of labour at the operating time for cultivation. To overcome these obstacles there is a need for assisting labour with machine. So to avoid the problem of shortage in agriculture labour, farmers have adopted intensive rice farming and mechanisation of paddy cultivation.

## **5. The remedies for the problems faced by the agricultural farmers**

Even after seventy years of planning and development in India the agricultural sector remains in a poor state and the policy initiatives have failed to provide any breakthrough. The growth rate of agriculture has lagged behind that of the other sectors. The GDP growth rate for the last ten years was about 7.5 per cent but the agricultural growth rate was **bearly** 3.5 per cent. As a result, its share in the GDP has come down from 19 per cent to about 12 per cent.

### **a. Education, training and extension**

Education is the main pillar of human development and a major factor in agricultural development. Research shows that primary education attainments and literacy, training in basic skills and extension services have an immediate and positive impact on farmers' productivity. The farmer is educated, the more he stands to gain in income from the use of new technologies the more rapidly he adjusts to technological changes. The effects are beneficial to the whole population, thereby increasing the capacity of the rural population.

### **b. The role of rural women in agricultural development**

Women in agriculture has placed a considerable increase in the women's capacity to produce, provide, and prepare food in the face of already considerable obstacles. Women's full potential in agriculture must be realized if the goal of promoting agricultural and rural development is to be achieved.

### **c. Availability of farm inputs**

Indian farmers are not getting subsidized seeds in good quality at the correct time, sufficient fertilizers and pesticides. Similarly the governmental machinery is not helpful in providing farm equipments at the correct time and also inadequate irrigational facility.

### **d. Information and communications**

Information and communication are also essential for sustainable agricultural and rural development. Investments in rural information systems can improve farmers' knowledge levels and management skills. Raising the level of awareness, acquiring information, sharing experiences, changing attitudes and developing skills call for processes of communication and learning.

### **e. Agricultural research and extension**

In most less developed countries, the institutional capacity for research and extension is weak. As a result, the technology available is insufficiently adapted to local conditions and research results do not come up with a variety of technological solutions adapted to the range of socio-economic and agro-ecological conditions existing in the country, such as the differing technical needs of female and male farmers. Lack of technological alternatives is often mentioned as a constraint to irrigation development (e.g. different models of irrigation pumps, suited to the needs of different users). Where techniques and technologies developed by research are available, their spread is faced with a number of difficulties such as the poor delivery of the extension and training services that are not necessarily targeted to the appropriate users.

Weak extension and training services and the consequent lack of technological knowledge of farmers are often considered to be the major factors behind the insufficient adoption of improved technologies. This constraint

could be overcome by improving farmers' access to knowledge. For example, valuable information can be obtained from some of the extension materials on FAO's Ecoport web pages..

#### **f. Investment in agriculture**

Government should allot more in developmental schemes to agriculture. Heavy investment is required for promoting irrigational facilities. The present system is not sufficient to meet the requirements. Our agriculture which is mainly dependent on nature requires an alternative, that is investment required for controlling both flood and drought. Permanent heavy investment is required to construct the outer bunds and the inner bunds in Kuttanad to promote the agricultural sector in Kuttanad region.

#### **g. Give a big push to the farmers to cultivate fallow land**

The Government gives a fixed amount (approximately 15 or 20 per cent) of financial support to the newly entered farmers and also who are willing to cultivate fallow land. These farmers face large expenditure because cultivating fallow land is very much expensive and also the productivity is low in the initial years. These types of rewards create an inflow of farmers in paddy cultivation.

#### **h. Encourage a healthy competition**

The Government should grant more attractive rewards to the largest yield producing paddy lands. These evaluations must be conducted separately for *kayalsekharams* and *padasekharams*. So this would encourage paddy cultivation in Kuttanad.

#### **i. Steps taken for control environmental problems**

The Government should take proper steps for the study of environmental problems created by chemical based farming in Kuttanad. Farmers should cultivate their land more profitably without disturbing the ecology.

#### **j. Decrease the use of chemical pesticides and weeds**

The Government should control the use of chemical based harmful pesticides and weeds. Kuttanad is fully covered with different water bodies and these water resources are connected with each other. So the use of dangerous pesticides diluted in water, pollutes the water bodies. The Government should promote eco friendly methods to control weeds and pest, thereby protecting the environment.

#### **k. Pollution control methods**

Kuttanad is polluted to a very large degree. Industrial revolution and green revolution are the main reason behind this activity. And also large number of international as well as national tourists came here daily. Besides these types of pollution, human and animal wastes make the environmental pollution worse. This is mainly due to lack of proper utilization of sewage facilities in Kuttanad. This was the cause for the spread of diseases like dermatitis, jaundice, colitis and amoebic dysentery. So the Government should take powerful steps to control these types of pollution and also punish the offenders.

#### **l. The policies to control price hike in the use of fertilizers**

Price hike refers to increasing price of fertilizers. The Government should fix minimum price for fertilizers.

#### **m. Increase the amount of subsidy for machines**

The amount of subsidy for machines should be increased. Labour shortage is a serious problem in Kuttanad.

#### **n. Develop infrastructure facilities**

The infrastructure facilities should be developed by the Government. Most of the *Padasekharams* spend huge amount for the construction of bund, *petty and para* e.t.c. and transportation is serious problem in Kuttanad. Therefore Government should give special emphasis on development of infrastructure facilities for the development of the agricultural sector.

### o. Do not take time lag for funding

The farmers do not get funds provided by the Government on time. This should be looked in to by the Government. Steps should be taken for timely distribution of funds. This is one of the serious problems faced by the farmers in the study area. Large number of farmers argues that they faced different difficulties for attaining funds. Majority of the farmers are not rich. They started cultivation mainly by borrowing money. Due to this reason time lag in disbursing funds creates difficulties for the farmers.

### p. Social and cultural factors

The social and cultural factors hinder the economic development of most of the under developed countries. Education and training are very poor especially for woman in India. But in Kerala, this is an exemptions. The social and cultural factors mostly depend on the educational status.

### q. Lessons from Experience

In the developed countries only below 5 per cent of the population is depending upon agriculture. Their production and productivity helps them to attain not only self sufficiency in food production but also a very good share of foreign exchange is earned from agricultural exports. Hence, lessons from Western countries can be adopted to suite our conditions to promote our agriculture. We can also depend on the advice given by experts in foreign countries in the agricultural sector.

## 6. Conclusion

Technology, resource use, institutions, knowledge and markets need to be adapted to deal with bottlenecks or constraints affecting particular commodity systems. This helps to respond to problems of natural resource exhaustion or degradation which ensures that advantages of new opportunities are taken through diversification.

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