

# Understanding of Spending and Earning of Paddy farming in one-acre land under three Different Practices of *Keelamattiyan* village, Madurai, Tamil Nadu

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**Abstract:** The name Keelamattiyan is originated from two Tamil words ‘Kila’ meaning the lower and ‘Mattiyan’ means the place. The village is in the southern part of India in the state of Tamil Nadu at Madurai district of Vadipatti block of Melakkal Panchayat. The soil of the area is sandy so the water holding capacity of the soil is very bad. Ground water level is not so good; this is because below some feet under the ground there will be the mountain rocks of “Naagamalai” hill whole agriculture is mainly depending on the rain water. Rice cultivation needs more water. Only one-time rice cultivation is there. But they also cultivate some vegetables and millets. But still Rice is the main crop cultivated in the village. Most of the farmers take only one crop and that is rice. It is a Kharip crop of the for its high water requirement. We can do cultivation of rice in two ways traditionally. Either direct seeding or transplanting. Normally the place have adequate water supply they go for transplanting otherwise people do the direct seeding method. As last few years there is not good rain adequate water supply is not there in the village that’s why they prefer the direct seeding method for cultivation of rice. From our study we can easily said that the actual spending and earnings of the farmers. No one has a B:C of at least one. It means they cannot even get back their investment amount.

## Introduction

The name *Keelamattiyan* is originated from two Tamil words ‘Kila’ meaning the lower and ‘Mattiyan’ means the place. The village is in the southern part of India in the state of Tamil Nadu at Madurai district of Vadipatti block of Melakkal Panchayat. The village was established around the *Angalaeshwary* temple. According to the villagers the *Angalaeshwary* was their ancestor who attained the supreme knowledge of the world. He was a sacred soul. *Angalaeshwary* prayed to God for the villagers so that God don’t punish the villagers for the small mistakes God also promise to him that if someone wash his body and confess his guilt to god with a pure mind God will forgive them. The northern boundary of the village is *Vaigai* River, *Pottalaptti* village in the south, *Melamattayan* in the west and the eastern side is upto *Kachirairuppu* village.

## Dimension of Agriculture in the village

The soil of the area is sandy so the water holding capacity of the soil is very bad. Ground water level is not so good; this is because below some feet under the ground there will be the mountain rocks of “Naagamalai” hill whole agriculture is mainly depending on the rain water. Rice cultivation needs more water. Only one-time rice cultivation is there. But they also cultivate some vegetables and millets.

## Seasonal crop calendar

Rabi	Kharip	Zaid
Tomato, Chilly, Brinjal	Paddy, Okra, Ragi	Cucumber, okra. Ground nut, Brinjal



**Fig.1- Seasonal Crop Calendar**

### Rice Cultivation Practice of Keelamattayan:

Rice is the main crop cultivated in the village. Most of the farmers take only one crop and that is rice. It is a Kharip crop of the for its high water requirement. We can do cultivation of rice in two ways traditionally. Either direct seeding or transplanting. Normally the place have adequate water supply they go for transplanting otherwise people do the direct seeding method. As last few years there is not good rain adequate water supply is not there in the village that's why they prefer the direct seeding method for cultivation of rice. They are using the high breed seeds for their cultivation so every year they have to buy new seed because the highbred plants cannot generate good quality seed as the mother one. The fully depend on rain for irrigation and use high inorganic fertilizer than the organic. They said that they use pesticide before the pest come to the plot.

### Objectives

- Understanding of the spending and earning of paddy farming in one acre of land.
- Identify the Benefit cost ratio of paddy farming in one acre of land for three different practices.

### Review of Literature

Nirmala and Muthuraman (2016) found in their study on economics and major constraints in rice cultivation in Kaithal district of Haryana was conducted during 2007-08. The investigation secured four villages of two blocks and information on hurdles and cost-return aspect of rice development was gathered from 80 farmers. Total costs in rice production amounted to be Rs. 33778.68/ha. Average yield was 4.99 t/ha. Benefit-cost ratio worked out to be 1.27. Pests and disease incidence, lack of remunerative price and labour shortage were the major constraints in rice production.

Sita Devi and Ponnarasi (2009) tell in their paper that rice is the staple food in Tamil Nadu and is developed in a territory of 2.6 Mha with a production of 8.19 Mt and profitability of 3.2 t/ha. With regards to high water request by rice farmers, any technique that would deliver higher rice yield with less water is the need of the day. One such framework is "System of Rice Intensification" (SRI) which was produced by Fr. Henri de Laulanie in Madagascar in 1980. The general target of the experiment is to discover the economics and the farmer's adoption behaviour of the system of rice intensification. The experiment has discovered that the per hectare cost of development is around 10 percent bring down in SRI than the regular strategy. The logit framework has demonstrated that age, age, farm size, income of the farm, number of earners in the family and number of contacts with extension agencies are positive and highly influence the adoption behaviour of the farmers. Lack of skilled labour, awareness, training on new technology and experience have been opined as the main problems in adoption of this technology by the farmers. To sum-up, farmers have been vastly benefited by SRI technology and it has helped them in their socio-economic upliftment. The adoption of SRI technique has helped increase the rice production without increasing the area under its cultivation and has proved to serve as an alternative method for rice cultivation.

### Methodology

Research methodology is the structural configuration of the study for conducting the research. It describes the research design, tools, sampling techniques, mode of data collection and analytical procedures for establishing the objectives of the study within the framework.

## 1.1 Selection of problem

Though the farming is the most popular income generating method of rural villagers but the lower technology, big socio-cultural issues, wrong family decision decrease the crop production in farmer's field. Considering the above facts, this study was undertaken and Impact of this farming in the study area is required to combine the whole situation and will bring a change of paradigm.

## 1.2 Research Design

The research design describes the overall strategy of the study that combines all the components of the study and defines the research problems. We choose the interview process to collect the data.

## 1.3 Sampling-

Sample size: Samples of 10 households were selected. Which is consist of the farmers who have own land, do farming on leased in land and tenants.

### 1.3.1 Sampling techniques:

**Block selection:** From the Madurai district Vadipatti block was selected.

**Village selection:** Under this block, *Keelamattiyam* village was selected purposively.

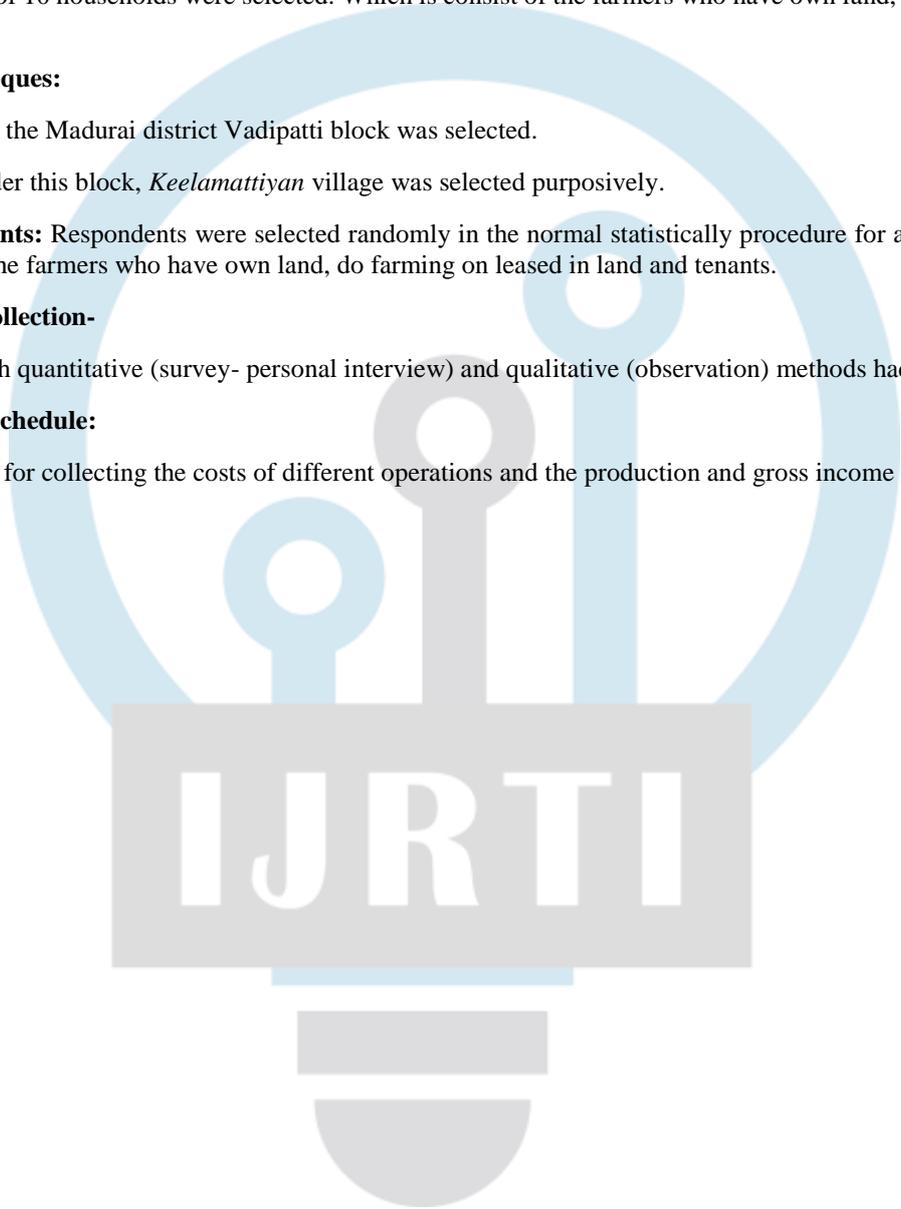
**Selection of respondents:** Respondents were selected randomly in the normal statistically procedure for avoiding biases. But the sample represents all the farmers who have own land, do farming on leased in land and tenants.

## 1.4 Method of data collection-

For data collection both quantitative (survey- personal interview) and qualitative (observation) methods had been adopted.

### 1.4.1Preparation of schedule:

We make the schedule for collecting the costs of different operations and the production and gross income from one acre of land.



**Results and Discussion****Table No. 1 Cost of Cultivation of one acre of land for different Agricultural Practices.**

Components	Owned Land	Leased in land	Tenant
<b>Cost (A<sub>1</sub>)</b>			
Cost of hired labour for land preparation (Rs.)	250	250	250
Hired labour cost for sowing and planting (Rs.)	1100	1100	1100
Cost of hired machinery (Rs.)	6500	6500	6500
Cost of own machinery (Rs.)	200	200	200
Weeding	1200	1200	1200
Pesticide	6000	6000	6000
Basal Dose	100	100	100
Split Dose	2300	2300	2300
Seed	1000	1000	1000
Ploughing	3000	3000	3000
Planting	1750	1750	1750
Cost of irrigation (Rs.)	1000	1000	1000
Compost	900	900	900
Miscellaneous cost (Rs.)	500	500	500
<b>Total (A<sub>1</sub>) [Rs.]</b>	<b>25800</b>	<b>25800</b>	<b>25800</b>
<b>Cost (A<sub>2</sub>) = Cost A<sub>1</sub>+rent on leased in land (Rs.)</b>			
Rent on leased in land (Rs.)	0	8500	0
<b>Total (Rs.)</b>	<b>25800</b>	<b>34300</b>	<b>25800</b>
<b>Cost (B<sub>1</sub>) = Cost B<sub>1</sub>+interest on own fixed capital (Rs.)</b>			
Interest on own fixed capital (Rs.)	1000	1000	1000
<b>Total (Rs.)</b>	<b>26800</b>	<b>35300</b>	<b>26800</b>
<b>Cost (B<sub>2</sub>) = CostB<sub>1</sub>+rental value of own land (Rs.)</b>			
Rental value of own land (Rs.)	7500	7500	7500
<b>Total (Rs.)</b>	<b>34300</b>	<b>42800</b>	<b>34300</b>
<b>Cost (C) = Cost B<sub>2</sub>+ cost of own family labour (Rs.)</b>			
Cost of own family labour (Rs.)	5000	5000	5000
<b>Total (Rs.)</b>	<b>39300</b>	<b>47800</b>	<b>39300</b>

**Table No.2 Benefit Cost Ratio of one acre of land for different Agricultural Practices.**

Components	Owned Land	Leased in land	Tenant
Production(Kg)	2600	2600	2600
Actually they Get	2600	2600	2340
Price Per Kg	14	14	14
Gross Income	36400	36400	32760
B:C	0.93	0.76	0.83

From the Table No. 1 we can easily find the cost of cultivation of all the three types of here different Agricultural Practices. The farmers who have their own land they spend Rs.39300 per acre, who are doing the farming on leased in land they are spending Rs.47800 per acre and those who are the tenant are exactly spend the same as them who have own land. The Table No 2. describe

the production from one acre and what actually the farmers get and the benefit and cost ratio. If we see the Table No 2. It's clear that every practice produce the same but the tenant not get the same amount what they actually produce, because they have to pay nearly 10% of the production as a share to the land lords. The price of one Kg of rice is Rs.14 and the Benefit and Cost ratio of the three approaches are given below-

- ❖ For those who have own land get the most B:C of 0.93
- ❖ The farmers who do their farming in leased in land they get an B:C of 0.76
- ❖ The tenants have a B:C of 0.83

### **Conclusion**

From this study we can clearly understand the actual spending and earnings of the farmers. No one has a B:C of at least one. It means they cannot even get back their investment amount. But when we asked them about the benefit they told us a little benefit they get. Actually all over India any farmer doesn't count the farmers own family labour as the cost of production so they think they are earning a little benefit. But the family labour is that opportunity cost what they lose while working in the farm. This is not the problem of the farmers of *Keelamattiyam* only it's the problem of whole India. The problem of the farmers are they either underemployed or disguised unemployed. They know the only one skill what is farming and due to the lack of education they have a very limited choice of livelihood. So even they have their own land they take it as lease or cultivate as a tenant. While taking lease or cultivation as a tenant they are losing opportunity of earning more. They don't even know that they are running in loss they just want grains in the store what ensure the food security for the whole year. Only for this mentality they don't go for commercial crops or vegetables. Most of the Indian farming is contributing to only food grains what make the nation less nutrient. The poor only take one side dish of vegetable it's because the high price of vegetables. Vegetables are high price because there is less supply of it. Its create cycle on malnutrition which prolong the spell where the functional food still not considered as palatable. Still we consider the amount not the nutritive value of food. To increase the income of farmers a holistic and mass revolution may be waiting in future. But we cannot wait for the future to come. To increase the income from agriculture we have to options reducing the input cost and increase the productivity. The farmers of *Keelamattiyam* following the conversional green revolutionist model of farming. It is not their fault what the officers promoted they are following. The officers promoted the same model what is followed by Punjab, but it cannot be successful in Tamil Nadu. In Punjab the water availability is very high so they can do the highly fertilizer and irrigation sensitive in organic cultivation of rice. But a place like *Keelamattiyam* which is fully depend on rain for irrigation cannot earn same yield as Punjab by adopting the same model. But in such dry places they can easily go for SRI what reduces the input cost and increase the productivity also. The seed rate will be decrease the cost of weeding will be decrease and they can get the crop in a shorter period the yield also increase due to more space and less weed infestation in the plot. They can go for transplanting cultivation which increase the productivity up to 26% (according to Department of Agriculture, Andhra Pradesh). But SRI is a highly skilled job, before starting it the farmers must have adequate skill and knowledge about it. For that we have to consult with the local KVK (Krishi Vigyan Kendra) for arranging the training. Every KVK have a mandatory duty to train some rural youths with a minimum charge (in case of tribal it's free and fully residential) to be self-employed and skilled. If we can use that opportunity to train the farmers of *Keelamattiyam* we can increase their income and reuse the cost of production.

### **Acknowledgement**

Though the following project is a group work, we could never have reached the heights or explored the depths without the help, support, guidance and efforts of a lot of people. We are very grateful to Mr. Mandar Nayak for his guidance and the villagers of *Keelamattiyam* village and all the others who directly and indirectly help us to conclude this project work.

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