ECONOMIC IMPORTANCE OF RICE FARMING COMMUNITY: A CASE STUDY IN CACHAR DISTRICT.

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Abstract:

This paper portrays the 96 households of farming community in cachar district under the study which discusses the Production, Price, Profit and problems etc. In general kharif rice varieties like Ranjit, Bahadur, Sarna Masuri, Sarna Sali, Tapashi and Biron (sticky rice). The varieties of the crops cultivation depends on the topographical conditions of the lands as well as time factor of the harvesting period. Rice is the main crop of north east India in Assam which accounts for more than 90% of total food crop in the state. The genuine challenge for food crop growth and doubling the farmer's income arises from the fact that about 84% farmers are small and marginal despite the regions cultivation depends on monsoon and natural rain. The farmers are no longer to continue rabi crops because of heavy texture with high percentage of clay, soil acidity, intricate nutrient and lack of irrigation.

Keywords: topography, cultivation, income and marginal etc.

Introduction:

Climate has an important influence on the nature of the natural vegetation, the characteristics of the soils, the crops that can be grown and the type of firming that can be practised in any region. There are a number of diverse types of tropical climate and there is correspondingly great variation in the agricultural potential of different parts of tropics [1]

A great improvement in the efficiency and productivity of agriculture is essential in most of the tropical developing countries if their rapidly increasing populations are to be provided with adequate food, employment and better standard of living. Nearly 70 percent of the people of these countries currently depend for a living on agriculture which, except in a few territories with substantial oil or mineral production, accounts on average for almost one-third of the gross domestic product and for rather more than half the total value of exports. Hence, agricultural development is not only needed to produce more food for domestic consumption, but also to provide exports to earn foreign exchange for the purchase of resources which imported for industrial development. Growing more raw materials for local manufacture may also be desireable.[2]

In India Rice (Oriza sativa L) is grown in an area of 45 Mha annually with a production of 90 MT which accounts for 45% of food grain production in the country[3]. It is most important grain with regard to human nutrition and caloric intake, providing more than one-fifth of the calories consumed worldwide by humans. Assam soil, topography climate are very conducive for agriculture activity

especially for paddy cultivation. Therefore, Assam paddy cultivation shows almost six (Ahu, Sali, Asra, Bao, Boro and Hill rice) agricultural classes on the basis of their time of harvest.[4]

In Assam, rice is cultivated in an area of 24.28 lakh ha with the production of 51.25 lakh tonnes during the year 2015-16 [5]. In Cachar district of Barak valley zone, paddy cultivation is basis of agriculture accounting 1,07,139 ha, of which winter paddy was predominant with 91,912 ha during 2012-2013.[6] Along with this the district has conducive amount of double and triple crop area (approx.70,980 ha) in which rice is the main component of cropping system.[7] Though the predominant Kharif rice varieties like Ranjit, Bahadur and Masuri etc have high yielding productivity as well as suitable for the land.

Objectives of the study:

1. To assess the yield and price variability.

2. To estimate the profitability of the rice production.

3. To examine the sustainability and problems of the rice production system.

Statement of the Problem

From the forgoing information it can be evidence that very menial number of empirical study have been done on farming community. A detailed study covering various aspects of rice farming i.e. production, price, profit, labour and prospects etc. is an urgent need of farming economy. Therefore, a study has been undertaken to know various elements of rice farming and to provide important information about the prospects of farming community in Cachar district as well as in Assam.

Research questions:

1. Yield and price variability of rice production varies from small farmer and large farmer.

2. Is rice cultivation profitable in this area?

3. What are the prospects and problems of the units?

Research Methodology:

The proposed study is to explore and understand the various aspects of economic importance of farming community of Cachar district. The universe is all the rice farming community household as a unit in Cachar district. The population 104,295 (2019-20) numbers of farmers by using sample size calculator, the sample size is found 96 at confidence level 10%. The area of study was conducted in Cachar district data analysis techniques descriptive statistics for analyzing the dependence data Chi-square exact test is used due to the reason that some of the cells are either zero or less than 5. The report presentation is using table for easy grasping the findings.

Result and Discussion

Price on the Production in Cachar district

Rice is grown in the high-rainfall area or in areas where supplemental irrigation is available to ensure good production. If the crop has to rely solely on rainfall, it requires not less than 30 cm per month of rainfall over the entire growing period. Mostly 45 percent of the total rice area in India receives 30 cm per month of rainfall during the two months (July and August).

Table: 1: Production of Price

Production (per Bigha)	Price				Total
	Rs 270	Rs 290	Rs 300	Rs 320	
14 Monds paddy and above	0	0	3	0	3
16 Monds paddy and above	0	1	11	0	12
18 Monds paddy and above	8	7	10	0	25
20 Monds paddy and above	0	0	5	51	56
1 Monds = 40 Kg.	8	8	29	51	96

(Source: Primary Data)

It is revealed from the table above that out of 96 unit's majority of the unit possessed by the 20 monds 56 numbers of unit, 25 units 18 monds, 12 units 16 monds and 3 units under 14 monds category. Under price category 51 numbers of units Rs 320, 29 units Rs 300, 8 units Rs 290 and Rs 270 for each price category. It is seen that highest price is secured maximum production category.

From the above findings, it is imperative to test whether the price level depends upon the production.

Hypothesis Testing

Null Hypothesis (H0)
There is no significant relationship between the price level and production of the respondent.

Alternative Hypothesis (Ha)
There is significant relationship between the price level and production of the respondent.

For testing the above hypothesis Chi-square (exact test) was conducted for analysis the dependent data and the test result is given table 2.

Table :2 Chi-square test on Production by Price			
Pearson Chi- Square	Value	Df	Exact.sig.(two sided)
	96.300	9	.000

Test result of SPSS software

Since the P-value = .000< 0.05, the Chi-square critical value X^2= 96.300 is significant. Hence Null hypothesis (H0) is rejected and Alternative hypothesis (Ha) is accepted. That is, there is a significant relationship between price level and production of the respondent. In conclusion that price level depends on the production of the respondent.

Profit of the Production

Profit is a reliable instruction to operational quality of a firm or business and informs either it is beneficial doing business in any specific period or not. It enables the survival, the economic growth and prosperity of an organization.

Profit is the surplus of revenue after the deduction of all the expenses incurred on earning it. It is the reward of the entrepreneurship[8].

It is revealed from the study that profit earning units are under the production range of 18monds and above, 16 monds is estimated as non-profit making units.

Table: 3 Production of profit

Production Per Bigha	Profit		Total
	No	Yes	
14 Monds	3	0	3
16 Monds	27	0	27
18 Monds	0	27	27
20 Monds	0	39	39
Total	30(31%)	66(68 %)	96(100%)

(Primary Data)

It is seen from the table above that 68% of the unit obtained the profit marginal production under which 18 monds 27 numbers of unit and 20 monds 39 number of unit. In the non-profit making production category 31% number of unit under which 16 monds 27 number of unit and 14 monds range 3 number of unit.

From the above findings, it is imperative to test whether the profit level depends upon the production.

Hypothesis Testing

Null Hypothesis (H_0)

There is no significant relationship between the profit level and production of the unit.

Alternative Hypothesis (H_a)

There is significant relationship between the profit level and production of the unit.

For testing the above hypothesis Chi-square (exact test) was conducted for analysis the dependent data and the test result is given table 4.

Table :4 Chi-square test on Production by Profit			
Pearson Chi- Square	Value	Df	Exact.sig.(two sided)
	96.000	3	.000

Test result of SPSS software

Since the P-value = .000< 0.05, the Chi-square critical value X^2= 96.000 is significant. Hence Null hypothesis (H_0) is rejected and Alternative hypothesis (H_a) is accepted. That is, there is a significant relationship between profit level and production of the unit. In conclusion that profit level depends on the production of the unit.

Firm size

Firms can be defined as small in terms of employees, assets or sales. Furthermore, a firm may be defined as large with reference to its asset base, its number of employee and its sale but still firm in the context of its particular industry. In an attempt to avoid these problems, the Bolton Committee (1971) defined a firm as small if it.

- Has a small share of the market,

- Is managed by its owners, and

- Is legally independent.

The benefit of this type of definition is that it focuses attention upon the lack of market power and the ownership and management characteristics of small enterprise that have a more direct bearing on its decision making performance.[9]

Table: 5 Production on Firm size

Production Per Bigha	Firmsize			Total
	½ ha 1ha	1 ha 2 ha	2 ha and above	
14 Monds	1	1	1	3
16 Monds	10	1	1	12
18 Monds	25	1	1	27
20 Monds	51	2	1	54
Total	87	5	4	96

(Source: Primary data)

From the above findings, it is imperative to test whether the firm size depends upon the production.

Hypothesis Testing

Null Hypothesis (H_0)

There is no significant relationship between the firm size and production of the unit.

Alternative Hypothesis (H_a)

There is significant relationship between the firm size and production of the unit.
For testing the above hypothesis Chi-square (exact test) was conducted for analysis the dependent data and the test result is given table 6.

Table :6 Chi-square test on Production by Firm size			
Pearson Chi- Square	Value	Df	Exact.sig.(two sided)
	13.722	6	.048

Test result of SPSS software

Since the P-value = .048> 0.05, the Chi-square critical value X^2= 13.722 is significant. Hence Null hypothesis (H_0) is accepted and Alternative hypothesis (H_a) is rejected. That is, there is no significant relationship between firm size and production of the unit. In conclusion that firm size not depends on the production of the unit.

Profit and Price:

Profit and Price are internally co-related with each other it is revealed from the table that 70% number of units is profit-making and 29% number of unit are non-profit making.

Table:7 Profit on Price of the commodity of the unit.

Price Per Monds	Profit		Total
	No	Yes	
Rs 270	0	8	8
Rs 290	0	8	8
Rs 300	0	29	29
Rs 320	28	23	51
Total	28(29%)	68(70%)	96(100%)

(Source: Primary Data)

From the above findings, it is imperative to test whether the profit level depends upon the price of the commodity.

Hypothesis Testing

Null Hypothesis (H_0)

There is no significant relationship between the profit level and price of the commodity.

Alternative Hypothesis (H_a)

There is significant relationship between the profit level and price of the commodity.
For testing the above hypothesis Chi-square (exact test) was conducted for analysis the dependent data and the test result is given table 8

Table :8 Chi-square test on Profit by Price of commodity.			
Pearson Chi- Square	Value	Df	Exact.sig.(two sided)
	34.879	3	.000

Test result of SPSS software

Since the P-value = .000< 0.05, the Chi-square critical value X^2= 34.879 is significant. Hence Null hypothesis (H_0) is rejected and Alternative hypothesis (H_a) is accepted. That is, there is a significant relationship between Profit and Price of the commodity of unit. In conclusion that Profit depends on the Price of commodity of unit

Production satisfaction

The satisfaction of production depends on Profits which relates to expenditure and the price of the commodity as well as quality. In Cachar district rice cultivation is done on traditional basis for their livelihood food and excess of production used for the commercial purpose only.

Table: 9 Production satisfaction of the farmworker

Production Per Bigha	Production Satisfaction		Total
	No	Yes	
14 Monds	3	0	3
16 Monds	12	0	12
18 Monds	0	25	25
20 Monds	0	56	56
Total	15	81	96

(Source: Primary Data)

From the above table it is revealed that 15 numbers of farmworker are less satisfied i.e. under 14 monds category 3 numbers of farmer and 16 monds category 12 numbers of farmworker and 81 numbers of farmers are satisfied i.e. 18 monds category 25 numbers and 20 monds category 56 numbers of farmer. In comparison between satisfactions levels of production the satisfied category receive higher response than not satisfied category.

Conclusion:

It is seen that highest price is secured maximum production; the price level depends on the production of the farmer. In profit level depends on the production of the unit and the firm size not depends on the production of the unit. In conclusion that Profit depends on the Price of commodity of unit and satisfactions of production receive higher responses.

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