

# Knowledge and Perception of Farmers Towards Present Rice Farming and Marketing Practices in Balasore District of Odisha

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## ABSTRACT

Agricultural sector, particularly production of rice plays a crucial role for the economic prosperity of the state of Odisha as rice is the major food grain of Odisha. An efficient marketing system of rice benefits all the stake holders such as consumer, producer and middleman who have a conflicting interest. The government plays an important role in creating an environment through facilitation of services so as to protect the interest of the all the stake holders. With this background the objectives of the present article are to know the knowledge and attitude of farmers towards present rice farming and marketing practices as well as to know cost components and profit from rice production in terms of percentage in both *Rabi* and *Kharif* season in the district of Balasore of Odisha. The study finds that the 74.75% and 72.9% of the farmers have knowledge and positive perception regarding training and agri-extension programmes respectively. It is observed that 71.2% of farmers say positive about getting timely information on farming and marketing. The knowledge about minimum support prices is observed to be of highest percentage *i.e.*, 99.33% followed by knowledge about marketing through Primary Agricultural Co-operative Society *i.e.* 99.16% and 94.28% have knowledge about market yard. Despite having satisfactory positive response towards knowledge of government provisions relating to farming and marketing, there is low profit margin in rice cultivation. The study also finds profit in terms of percentage (approximately) is as 15 and 10 per cent during *Kharif* and *Rabi* season, respectively. The study concludes that there is much positive response regarding the present practices on rice farming and marketing from farmers' perception point of view. In order to boost rice production and its efficiency in marketing system with a view to get more profit in one hand and reducing input cost on the other hand, the government has to bring more attention for encouraging rice growing farmers in its cultivation which has shown a declining trend of area under rice cultivation.

**Key Words :** Cost, Knowledge, Marketing, Perception, Profit

## INTRODUCTION

Agricultural sector plays crucial role for the economic prosperity of the state of Odisha. Agriculture in Odisha is the mainstay of majority of the populace and holds, the key to socio-economic development of the state. Truly, the growth of the agricultural sector is significant not only for ensuring food security and reduction of poverty in rural areas, but also sustaining growth of rest of the economy. Odisha is among the top eight states in area and production of rice with 5.87 million

tones of production in 2015-16, West Bengal being the highest producer followed by Uttar Pradesh, Punjab, Tamil Nadu, Andhra Pradesh, Bihar and Chhatisgarh, respectively. Moreover, rice is the staple food of Balasore district of Odisha. The welfare of the rice-growing farmers depends to a large extent on marketing efficiency on one hand and reducing input cost, thereby rising profit on the other. The Govt. of Odisha is fervently engaged in the process of agricultural development through training programmes relating to rice farming and its marketing, agr-extension services, providing timely information on

farming and marketing. Government also helps the farmers to procure paddy through Primary Agricultural Credit Societies by creating infrastructure for marketable surplus at minimum support price. In this regard, it is imperative to know the knowledge, awareness and perception of farmers towards government provisions and facilitation for farming and marketing of rice at present along with cost and profit analysis (in percentage terms) of its rice in both *Kharif* and *Rabi* season of farmers in the district of Balasore of Odisha after conducting a primary survey of 594 farmers in four blocks of Balasore district.

### Review of literature:

An humble attempt has been made to review some of the literature relating to rice cultivation and marketing and role of innovative technology in rice production.

Totin and Leeuwis (2012) have examined the technical and institutional factors which hinders the effective use of irrigation water and the development of local rice value chain in an inland valley of Benin. The research points out that both local and higher level institutional barriers affect the development of the local rice value chain negatively. Mainly, the barriers to innovation include an unclear division of responsibilities between local farmer groups and the government for the purpose of maintenance of canal, lack of effective local rules for the objective of distribution with maintenance of the irrigation infrastructure and distrust among farmers and constraining formal as well as informal credit systems with uncertain market outlets. The authors found that rice output and farmers' income are depressed on account of the barriers. Lastly, the authors viewed that the windows of opportunity to stimulate innovation comprise consumers' affinity to local products and territorial product labels, private-public community partnerships, the irrigation potential of inland valleys by the use of small pumps in combination with shallow tube well irrigation. The authors opined that unless addressing local institutional issues, there is question of innovation in the situation of issues.

Jose (2016) has studied to know the scope for paddy cultivation in Kanyakumari district and also to know the modern technologies applied in agriculture. The authors have analysed the various problems faced by the paddy cultivators, getting yield and marketing of paddy. The research also stated that factors influencing to choose the agriculture and reasons for the poor economic level

of the farmers. The authors have opined that farmers in Kanyakumari district prefer agriculture mainly due to the availability of land. Moreover, the authors suggested that advanced technologies should be used in the agriculture sector to make more profits in agricultural activities thereby farmers will be economically sound.

Amengor *et al.* (2017) have examined that transforming agriculture in Ghana is key to increasing farm output, reducing poverty, ensuring environmental sustainability as well as reducing food insecurity. Linear transfer of technology addressing productivity, marketing and also policy underlies the poor performance of rice sector. The study emphasized that there is need for the Innovation Systems Approach using the innovation platform as the coalition of actors with the value chain for successful tool. Four innovation platforms were established in Atebubu, Amantin (Feed the future), Jasikan and Westa (systems of Rice intensification). The identified farmer constrains are high cost of agro chemicals and fertilizer, unreliable rainfall patterns or lack of irrigational facilities, low farm gate prices, high incidence of weeds. The study suggested that rice productivity in Ghana can be augmented by use of innovations at various stages of the rice value chain.

Hinnou *et al.* (2018) have studied that rice value chains have failed to achieve their potential on account of certain constraints in Benin though having its significance in food security. This study says to assess the influence of Innovation Platforms (IPs) on the governance of the parboiled rice value chain. The findings show that local rice value chains are featured by unequal access to resources and asymmetry of power, which generates inequalities within groups. The development model of value chains may be "business idea approach" oriented instead of the "project approach" as per suggestion of the study.

Arouna (2018) has highlighted that market access is a major constraint of small holder rice producers in sub-sahara Africa (SSA). The study also pointed out that identifying the determinants of participation in collective marketing of rice in innovation platforms in Benin as well as quantify its impact on household income and food security. The author suggested that the impact of collective marketing of rice on food security can be sustained by better training and well-functioning farmer groups.

Ruaykijakarn *et al.* (2018) have examined the socio-economic, knowledge and attitudes towards marketing

innovation of organic rice farmers in Chachoengsao province of Thailand. The study findings showed that most farmers are female (65 %), aged between 51-60 years old (35 %), graduated from primary school (80 %). The result of participant on farmer knowledge of marketing innovation was a knowledgeable about organic rice marketing innovative at a moderate level (55 %). The farmers had high level of attitudes towards marketing innovation (80 %) as per the study.

**Objectives of the study :**

The specific objectives of the study are :

- (i) To know the knowledge and attitudes of farmers towards present rice farming and marketing practices in the district of Balasore of Odisha.
- (ii) To know cost and profit from rice production and its marketable surplus in the study area.

**METHODOLOGY**

The present study is based on both primary as well as secondary data. Balasore is selected as the sample district of the state of Odisha, particularly, in rice crop. The primary data is mainly based on the perception of the rice growing farmers. Primary data are collected through survey method by administering a structured questionnaire among 600 farmers. The valid responses are 594. Farmers are randomly selected from four blocks such as Bhogarai, Khaira, Jaleswar and Basta of the study area. In this connection, the judgement sampling is used for the purpose of selecting farmers from each segment basing on a specified proportion. The survey has been carried out during the period from 2016 to 2017.

**RESULTS AND DISCUSSION**

**Analysis and interpretation of results:**

The analysis and interpretation of results is shown

as below :

**Knowledge and perception of farmers towards present rice farming and marketing practices in the district of Balasore of Odisha :**

In this connection, responses are collected from farmers of their knowledge and perception towards present rice farming and marketing practices in the district of Balasore of Odisha as follows :

Market information is very important facilitating function for all the stakeholders in the agricultural market system, more so for the farmers who are selling their produce. This helps in making decision about production, marketing as well as long term cropping decisions. 71.2% farmers say positive about getting timely information on farming and marketing. The availability and dissemination of accurate and relevant marketing information is important for long run sustainability of agriculture. One of the most important is that of market prices

It is important to disseminate information about new technologies so that the farmer is able to make use of the latest agricultural developments. There also exists a gap between research findings and the needs of farmers. For technology to be successful, it is important that it should serve a useful purpose to the end user. The institution that bridges the gap between farmers and agricultural research scientists is the Agricultural Extension Service. This service works through an Agricultural Research System in the States.

The main objective of Agriculture Extension Services or AES’s is to transmit latest technical know-how to farmers. Besides this, the AESs also focuses on enhancing farmers’ knowledge about crop techniques and helping them to increase productivity. This is done through training courses, farm visits, on farm trials, kisan melas, kisan clubs, advisory bulletins and the like. It has been observed from the field survey that 74.75% and 72.9% of the farmers have knowledge and positive attitudes

Knowledge and perception of farmers on rice farming and marketing	No. of responses		No. of responses	
	Yes	Percentage	No	Percentage
a) Training programmes on rice farming and marketing	444	74.75	150	25.25
b) Agri-extension programmes	433	72.9	161	27.1
c) Timely information on rice farming and marketing	423	71.2	171	28.8
d) Minimum support price	590	99.33	04	0.67
e) Market yard availability	560	94.28	34	5.72
f) Marketing through PACS	589	99.16	05	0.84

Source : Primary data

regarding training programmes on rice farming and marketing and agri-extension programs of the farmers respectively.

The idea behind MSP is to give guaranteed prices and assured market to the farmers and save them from the price fluctuations. It insulates farmers from the unwarranted fluctuation in prices caused by the variation in supply (largely influenced by the monsoon), lack of market integration, information asymmetry and other elements of market imperfection plaguing the agricultural markets. The guaranteed price and assured market are expected to encourage higher investment and in adoption of modern technologies in agricultural activities. Further, with globalization resulting in freer trade in agricultural commodities, it is very important to protect farmers from the unwarranted fluctuation in prices, provoked by the international level price variations. It has been observed from field survey that 99.33 % of the farmers have positive knowledge about MSP

Orissa State Agricultural Marketing Board is the apex Agricultural Marketing Institution in the state responsible for creation of marketing infrastructure, and for exercising supervision and control over the Regulated Market Committees of the state. It was established in the year 1984 under the amended provisions of the Orissa Agricultural Produce Markets Act, 1956 (OAPM). The OSAM Board receives funds from different sources like central assistance for establishment of Market Yards, Krushak Bazaars and for development of existing market yards in the RMCs. The OSAM Board undertakes massive extension activities like organizing farmers' awareness campaigns and exhibitions to educate the farmers on their rights and the marketing facilities available for them as 94.28% of the surveyed farmers have knowledge about market yard's availability.

RMCs are playing a significant role in the procurement of paddy under PDS. PACS (Primary

Agricultural Co-operative Societies) are the other important agencies used in procurement of paddy. With storage capacity of 50-100 MT each, 638 PACS are involved in procurement of paddy. MARKFED and FCI, are also engaged in the procurement of paddy in different districts. 99.16% of the surveyed farmers have the knowledge about marketing of paddy through Primary Agricultural Credit Societies.

In the Table 2, the cost of rice production constituting input costs shows more than 60 per cent of total cost during *Kharif* season and 62 per cent during *Rabi* season. The cost of transportation is 7 percent during *Kharif* and 8 per cent during *Rabi* season of total cost. The cost of average labour for marketing, cost of using of tools and equipments and other expenses are as 5 per cent, 10 percent and 3 per cent during *Kharif* season, respectively whereas they are 7 per cent, 10 per cent and 3 per cent during *Rabi* season, respectively. Finally, the profit is accumulated as 15 per cent and 10 per cent during *Kharif* and *Rabi* season, respectively. The percentage of input cost component, transport cost and labour cost component in *Rabi* season is more compared to *Kharif* season.

The above cost and profit analysis of rice production and its marketing during both *Kharif* and *Rabi* Season in percentage (approximately) is given in Fig. 1.

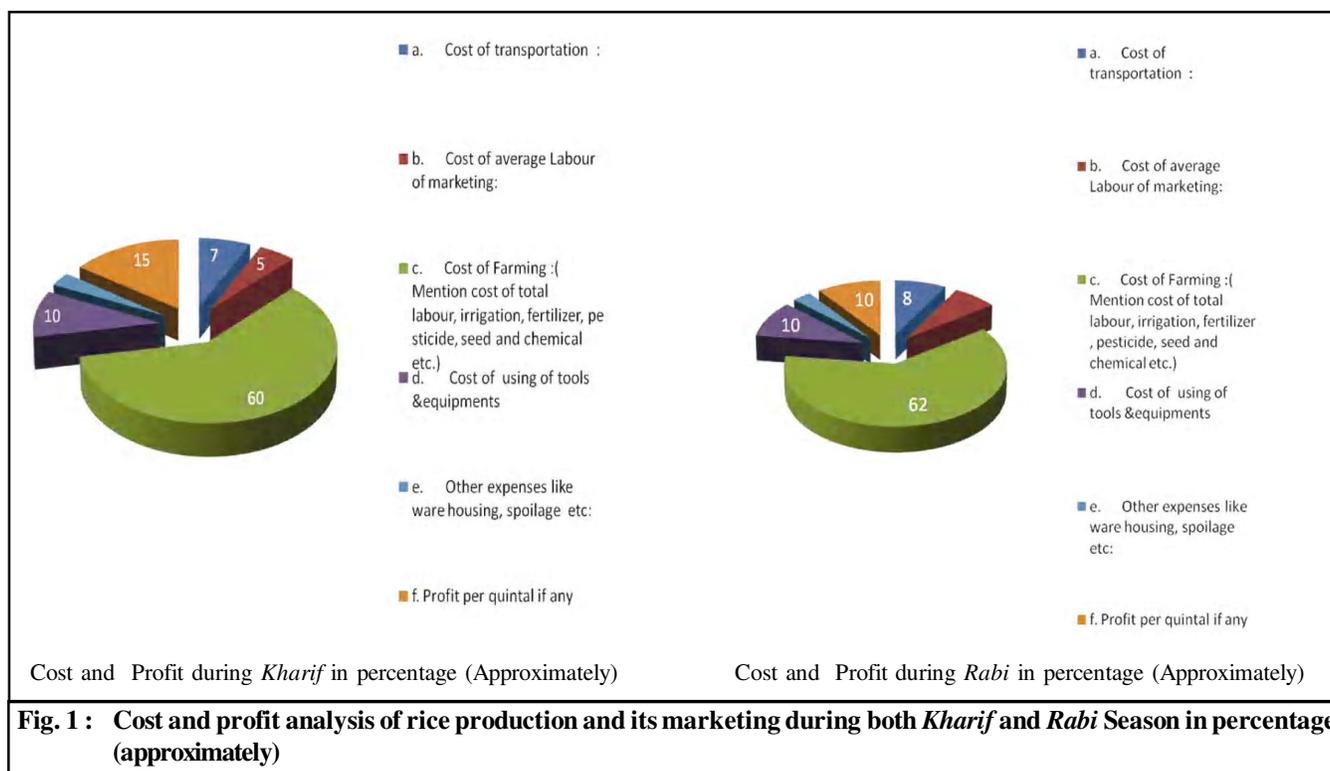
The difference in the profit margin of crops in *Rabi* and *Kharif* season can be ascribed to rising labour cost due to migration, rising kerosene price, non availability of tractors, rising cost of irrigation which increases the cost of production, thereby reducing the margin of profit for the farmers.

From the analysis of knowledge and perception of farmers towards present rice farming and marketing practices in the district of Balasore of Odisha, it is found that knowledge and attitudes of the farmers regarding farming and marketing practices of government on training programmes attended is 74.75%, on agri-

**Table 2 : Cost and profit analysis (Percentage wise) in rice production and its marketing in Balasore**

Components	In percentage (approx) <i>Kharif</i> crop	In percentage (approx) <i>Rabi</i> crop
1. Cost of transportation	7	8
2. Cost of average Labour for marketing	5	7
3. Cost of Farming (cost of total labour, irrigation, fertilizer, pesticide, seed and chemical etc.)	60	62
4. Cost of using of tools and equipments	10	10
5. Other expenses like ware housing, spoilage etc	3	3
6. Profit per quintal (if any )	15	10

Source: Field survey



extension programmes is 72.9% .Knowledge of farmers relating to getting timely information is 71.2%, minimum support prices (99.33%), market yard (94.28%) and marketing through Primary Agricultural Co-operative Society (99.16) are viewed positively .The study also finds profit in terms of percentage (approximately) are as 15 and 10 during *Kharif* and *Rabi* season, respectively. Despite a satisfactory level of knowledge and positive perception of farmers regarding different services of government rendered for effective farming and marketing, the farmers have not been able to take advantage of the existing provisions due to various bottlenecks for which there has been distress sale by the farmers to the middleman in Odisha.

### Conclusion and recommendation:

It is concluded that there is much positive response regarding the present practices on rice farming and marketing from farmers' perception point of view. In order to boost rice production and its efficiency in marketing system with a view to get more profit in one hand and reducing input cost on the other hand, the government has to bring more attention for encouraging rice growing farmers in its cultivation and ensure effective execution of marketing system reforms. As a result, farmers'

benefits will be optimized to strengthen agriculture in the path of robust economy of Odisha.

### REFERENCES

Amergor, N.E., Acheampong, G.K., Asante, M.D. and Dogbe, W. (2017). Innovation platform : A Tool for Sustainable Rice Production in Ghana. *Agric. & Food Science J. Ghana*, **10** (i), August 2017.

Aroua Aminou (2018). Assessing the Impact of collective marketing of paddy / Rice in innovation platforms by smallholder producers in Benin, September 5<sup>th</sup> 2018, Intech Open Ltd., U.K.

Bulletin on Operational Holdings (Number and Area), Agricultural Census, 2010-11, Odisha, (Phase-1), Directorate of Economics and Statistics, Odisha, Bhubaneswar.

District Statistical Hand Book, Balasore (2015). Directorate of Economics and Statistics, Odisha.

Jose, S. Anitha (2016). An economic study of paddy cultivation in Kanyakumari district. *Internat. J. Res. – Granthaalayah*, **14**, October, 2016.

Odisha Agriculture Statistics (2012-13). Directorate of Agriculture and Food Production, Odisha, Bhubaneswar.

- Odisha Economic Survey (2014-15). Planning and Co-ordination Department, Directorate of Economics and Statistics, Government of Odisha, Bhubaneswar.
- Odisha Economic Survey (2017-18). Planning and Convergence Department, Directorate of Economics and Statistics, Government of Odisha, Bhubaneswar.
- Odisha Economic Survey (2018-19). Planning and Convergence Department, Directorate of Economics and Statistics, Government of Odisha, Bhubaneswar.
- Hinnou, Leonard Cossi, Mongbo Roch Lambert, Kamanda Josey and Sanyang Sidi (2018). Innovation platform and governance of local rice value chains in Benin : Between game of power and internal democracy. *J. Cogent Food & Agric.*, **4** (1) .
- Report on Agriculture Census, Odisha, (Phase-II), 2005-06, Directorate of Economics and Statistics, Odisha, Bhubaneswar.
- Research Report (2011-12). A study on Agricultural marketing System.
- Ruaykijakarn, N., Suwanmaneepong, S. and Kuhaswonvetech S. (2018). Knowledge and Attitudes towards Marketing innovation of Organic rice farmers in Sanam Chai Khet Organic agriculture group, Chachoengsao province, Thailand. *Internat. J. Agric. Technol.*, **14** (7) : 1829-1842.
- Totin, E. and Leeuwis, C. (2012). Barriers and Opportunities for innovations in rice production in the inland valleys of Benin, NJAS – Wageningen, *J. Life Sci.*, **60-63** : 57-66.

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