A Study on Constraint Analysis of Rice Cultivation in Korba District of Chhattisgarh

ABSTRACT

Rice is an important staple food in Chhattisgarh. Therefore, this paper aims to discuss the issue and problems faced by rice farmers in Korba District of Chhattisgarh. The respondents were selected in Korba district consist of five blocks Pali, Korba, Katghora, Kartala, Podi-Uproda out of which Katghora block was selected purposively as in this block all the five paddy and there many cultivation related issues. And also the Vijaypur village selected purposively for the study. 50 respondents were selected i.e. 22 percent of total farmers for the study. Obtainined data, qualitative research methods through in-depth interview techniques, group discussion and observation were utilized and the data were analyzed using content analysis. The results showed that the rice cultivation area faced major problems such as Lack of knowledge about recommended package and Practices (rank I) followed by Problem of high cost of Fertilizer and plant protection chemicals (rank II) and Lack of Irrigation water (rank III). And marketing side the result showed major constrains such as Problem of Means of Transportation (rank I) followed by Reason for selling of produce to a particular agency due to very low amount of production farmers forcefully sell to local market (rank II) and Problem facing by Farmers because the Quantity of Produce is small (rank III). And also discussed Problem of Disease, Insect pest of Crop, Poor knowledge of improved and high yielding and disease resistant Varieties, Lacking of Institutional Support during Production and Marketing.

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Keywords: Rice, Constraints, Katghora, Rank.

INTRODUCTION

Rice is one of the important cereal crops of the world and forms the staple food for more than 50 per cent of population and is known as king of cereals. In crop year 2021, there were around 165.25 million hectares of rice-cultivated area worldwide. In India rice is grown in 43.86 million ha, the production level is 104.80 million tones and the productivity is about 2390 kg/ha (Agricultural Statistics at a glance- 2015) In Asia, India has the largest area under rice. It was 44.50 million hectares i.e., 29.40 per cent of the global rice area of the total harvested area, about 46 per cent is irrigated, 28 per cent is rainfed lowland, 12 per cent is rainfed upland and 14 per cent is flood prone. Rice is one of the largest traded commodities in the world with a total quantity touching 16.40 million tones. The South-east countries account for about 40 per cent of the rice trade in the world. In many third world countries, it is main or the only source of livelihood for over 50 per cent of population and contributes roughly the same proportion to the national income (Tanveer Ahmed, 2006). India emerges as one of the major exporter of rice in international market. Rice cultivation takes place in all States of India, but West Bengal, Uttar Pradesh, Punjab, Tamil Nadu, Andhra Pradesh and Bihar are the major rice producing states (P.Jwala at all, 2019).The state of Chhattisgarh popularly known as the "Rice bowl of India" occupies an area around 3.64 million hectares with production of 7.65 million tones and productivity 1517 kg/ha (Anonymous (c), 2015). Chhattisgarh is popularly known as the "Rice bowl of India". Chhattisgarh has a sizeable area under various varieties of rice variety i.e. Mahamaya, Rajeswari, HMT, Kalimooch, MTU-1010, Sawrna, IR-36 and IR-64 etc. These varieties are grown by the farmers in different agro climatic zones of Chhattisgarh state.

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The main reason for this study, to date is there has been a lack of research on this issues, particularly in the sense of giving greater focus on the issues of paddy cultivation in rural area. This is in line with the rapidly urbanization and industrialization process in Sarawak. Based on the experience in developed countries, land use has changed from agricultural activities to industrial and urbanization purposes. It lead to the decreasing of agricultural land and labor migration from agricultural sector to industrial sector due, to a better wages and life quality factors.

In the context of Korba District, there are numerous issues and challenges that occur in the rural paddy cultivation especially among the katghoras farmers. The main reason for this study, to date is there has been a lack of research on this issues, particularly in the sense of giving greater focus on the issues of paddy cultivation in rural area. This is in line with the rapidly urbanization and industrialization process in Korba district. Based on the experience in developed countries, land use has changed from agricultural activities to industrial and urbanization purposes. It lead to the decreasing of agricultural land and labor migration from agricultural sector to industrial sector due, to a better wages and life quality factors.

MATERIAL AND METHODS

The present study was undertaken in Korba district of Chhattisgarh. Korba district consist of five blocks Pali, Korba, Katghora, Kartala, Podi-Uproda out of which Katghora block was selected purposively as in this block all the five paddy and there many cultivation related issues. And also the Vijaypur village selected purposively for the study. 50 respondents were selected i.e. 22 percent of total farmers for the study.

The researchers use a qualitative research method and conduct in depth interview with the farmers, focus on group discussion and also personally observed the farming activities. The selection of villag is by cause of the community are still practicing paddy cultivation.

Garrett ranking

To find out the most significant factor which influences the respondent, Garrett's ranking technique will be used.

Table.1 Ranking of various constraints faced by farmers in production of rice.

SN	Constraints	Total Score	Percent	Total mean	Rank
1	Lack of latest technical Knows-how about the crop	2337	84	46.74	VII
2	Poor knowledge of improved and high yielding and disease resistant Varieties	2800	73	56	V
3	Lack of knowledge about recommended package and Practices	3964	66	79.28	I
4	Problem of Disease, Insect pest of Crop	2504	61	50.08	VI
5	Problem of high cost of Fertilizer and plant protection chemicals	2080	56	41.6	VIII
6	Lack of knowledge about recommended dose of fertilizers and Plant protection chemicals	1816	52	36.32	IX
7	Problem about Lack of Micronutrient / NPK in the Soil	1700	48	34	X
8	Lack of Labours during Cultivation Process	2937	44	58.74	IV
9	Lack of Irrigation water	3180	39	63.6	III
10	Financial problem in Production such as high cost of inputs like Seed, Fertilizers, plant protection chemical etc	3496	34	69.92	II
11	Lack of proper Knowledge about Crop Insurance	1250	27	25	XI
12	Lacking of Institutional Support during Production and Marketing	900	17	18	XII

Results and Discussion

Constraint faced by farmers in production of rice

The result of constraints faced by famers in growing rice have been identified and presented in the Table 1. To analyze the constraint faced by farmers, in rice cultivation were put before the sample farmers and farmers were asked to rank them according to the severity of constraints.

The ranks given by the farmers were converted into the average per cent position and then into scores. Finally, the scores were converted into the ranks with the help of Garrett ranking Table 2. It is evident from the table 01, that the most severe constraint faced by farmers in growing rice at overall level was Lack of knowledge about recommended package and Practices (rank I) with garret score of 79.28 followed by Problem of high cost of Fertilizer and plant protection chemicals (rank II) at score 69.92 This finding collaborates with Kwaghe *et al*. (2000) who reported high cost of important farm inputs militating against efficient farming. It also agreed with the findings of Tashkalma *et al*. (2010), Zalkuwi (2012) [9] & Suryavanshi *et al*. (2019) and Problem of Disease, Lack of Irrigation water (rank III) with 63.6. and Lack of Labours during Cultivation Process (rank IV) with 58.74.

In the table 02, that the most constraint faced by farmers in respect of marketing of paddy at overall level was Problem of Means of Transportation (rank I) with garret score of 71.64 followed by Reason for selling of produce to a particular agency due to very low amount of production farmers forcefully sell to local market (rank II) at score 54.56 and Problem facing by

Farmers because the Quantity of Produce is small (rank III) with 37.2. and Lack of awareness about Market NEWS and intelligence (rank IV) with 31.42.

Table.2 Ranking of various constraints faced by farmers in marketing of rice.

SN	Constraints	Total Score	Percent	Total mean	Rank
1	Reason for selling of produce to a particular agency	2728	73	54.56	2
2	Problem facing by Farmers because the Quantity of Produce is small	1860	56	37.2	3
3	Problem of Means of Transportation	3582	44	71.64	1
4	Lack of awareness about Market NEWS and intelligence	1571	27	31.42	4

Table.3 The transmutation of the order of merits into scores used in Garrett's ranking technique

Percent	**Score**	**Percent**	**Score**	**Percent**	**Score**	**Percent**	**Score**
0.09	99	11.03	74	52.02	49	90.88	24
0.2	98	12.04	73	54.03	48	91.67	23
0.32	97	13.14	72	55.03	47	92.45	22
0.45	96	14.25	71	58.03	46	93.19	21
0.61	95	15.44	70	59.99	45	93.86	20
0.76	94	16.65	69	61.94	44	94.03	19
0.97	93	19.01	68	63.85	43	95.08	18
1.2	92	19.2	67	65.75	42	95.62	17
1.42	91	20.33	66	67.43	41	96.11	16
1.63	90	22.32	65	69.39	40	96.57	15
1.9	89	23.63	64	71.14	39	96.99	14
2.03	88	26.43	63	72.85	38	97.37	13
2.63	87	27.16	62	74.52	37	97.72	12
3.01	86	28.66	61	76.12	36	98.04	11
3.43	85	30.61	60	77.68	35	98.32	10
3.89	84	32.42	59	79.17	34	98.68	9
4.38	83	34.25	58	80.61	33	98.82	8
4.92	82	35.15	57	81.99	32	99.03	7
5.51	81	38.06	56	83.31	31	99.22	6
6.14	80	40.01	55	84.56	30	99.39	5
6.81	79	41.97	54	85.75	29	99.55	4
7.55	78	42.97	53	86.89	28	99.68	3
8.33	77	42.97	52	87.95	27	99.8	2
9.17	76	45.97	51	88.97	26	99.91	1
10.6	75	50	50	89.94	25	100	0

Conclusion

Based on the logical interpretations of the results, it is concluded that off paddy cultivation is perceived as an alternative livelihood option for these migratory communities which is a source of income generation and livelihood for them. It has been also suggested that off paddy cultivation needs lot of technical expertise. There are variations in the type of constraints that farmers faced related to their ability to comprehend the problem. To minimise the economical loss due to these constraints, key stakeholders should take suitable steps to remove the constraints identified. Conducting more number of extension activities, training programmes, awareness programmes, and use of ICT tools along with mass media is the need of the hour.

Disclaimer: - The abstract of this manuscript was presented in a Conference.

Conference name: SR University, Warangal and Just Agriculture Education Group

Available link: - https://www.researchgate.net/publication/380395458_A_micro_study_about_Constraint_Analysis_of_Rice_Cultivation_in_Korba_District_of_Chhattisgarh

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