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CONSTRAINTS FACED BY THE FARMERS IN ADOPTION OF IMPROVED PADDY PRACTICES IN BISHNUPUR DISTRICT OF MANIPUR STATE

Termaric Oinam [1] & B. Sudhakar [2]

[1]*M.SC., (Agri), Dept. of Agrl. Extension, Faculty of Agriculture, Annamalai University, Chidambaram, Tamil Nadu.*

[2]*Assistant Professor, Dept. of Agrl. Extension, Faculty of Agriculture, Annamalai University, Chidambaram, Tamil Nadu.*

ABSTRACT

Rice is the key crop grown in Manipur state. There are several constraints enumerated by the farmers during adoption of latest recommended agricultural technologies in paddy cultivation. High cost of high yielding varieties, high cost of inputs and labour, lack of conviction in the new technology, week extension activities at village level were the major constraints faced by the respondents while adopting the recommended practices in their paddy cultivation. The findings will be of use for the officials of the State Departments of Agriculture, researchers and policymakers to plan and revise the extension programmes so as to eliminate the constraints of rice farmers in order to amplify the adoption of recommended paddy cultivation practices at farm level.

KEY WORDS: *Tehnologies, Constraints, Adoption, Practices, Pesticides.*

INTRODUCTION

The present cereals food grain production of India is 191.4 million tonnes. The National Commission of Agriculture has estimated that India's food grain requirement by the turn of this century would be around 225 million tonnes (Siddiq *et al.*, 2001). The possibility of further area expansion for rice area has now reached that limits in most of the rice growing countries including India. In this context, there is an imperative need to improve the production of food grains by employing improved innovations and adoption of sustainable low cost agriculture technologies by the farmers at farm level.

More serious effort is needed to ascertain the widely apprehended declaration of yield and

factor productivity in the intensively cropped irrigated ecologies and to initiate research to identify the causal factors for correction. Several studies undertaken by Indian Council of Agricultural Research (ICAR), International Rice Research Institute (IRRI), International Centre for Maize and Wheat Improvement (CIMMYT), broadly concluded on the existence of a steady decrease in rice yield growth, over time no consistent trend was established (Siddiq *et al.,* 2001). There are several constraints faced by the farmers during adoption of improved paddy practices. There is need for to study the constraints faced by the farmers in adopting paddy technologies.

SPECIFIC OBJECTIVE OF THE STUDY

Keeping these views, the present study to enumerate the constraints faced by the farmers in adoption of improved paddy.

REVIEW OF LITERATURE

Rajivgandhi (2010) reported that high cost of labour was the foremost constraints (80.33 per cent).

Selvakumar (2011) reported that high cost of labour (82.50 per cent), inundation due to floods (81.66 per cent), complicated practices (73.33 per cent), lack of communication (50.00 per cent) were the major constraints faced by the farmers.

Mullaivendan (2012) reported that high cost of labour was the first and foremost constraint experienced by (78.33 per cent) of the respondents followed by non-availability of suitable high yielding varieties (76.66 per cent). The third important constraint faced by the respondents (73.33 per cent) was weak extension activities at village level followed by high cost of inputs (61.66 per cent), lack of conviction in the technology (53.33 per cent).

Manikandan (2013) reported that inadequate power supply (95.33 per cent), labour scarcity (87.50 per cent), high cost of labour (80.83 per cent), pest and disease attack (77.50 per cent), high cost of inputs (75.83 per cent), and failure of seasonal rainfall (75.00 per cent) were the major constraints faced by the paddy farmers in their extent of adoption.

RESEARCH METHODOLOGY

Bishnupur district of Manipur state was selected for the study. Bishnupur district consists of two blocks namely Bishnupur and Moirang. Among two blocks, Bishnupur block was selected for the study as this block has more area under paddy cultivation. There are three sub-divisions in Bishnupur block namely Nambol sub-division, Moirang sub-division and Bishnupur sub-division. Nambol sub-division was selected for the study based on highest area under paddy cultivation. There are 24 revenue villages in Nambol sub-division. From the list, five villages were selected based on the maximum area criteria. The selected villages are Leimapokpam, Keinou, Pukhrambam, Maibam and Oinam of Nambol sub-division. . A sample size of 120 respondents was considered adequate for the study. The number of respondents to be selected in each village was decided by following proportionate random sampling procedure. Based on the field experienced of the researcher coupled with discussion with the rice growers and extension functionaries, the constraints were enumerated experienced in their cultivation, respondents were asked to indicate the constraints. The frequency of respondents indicating each of the constraint was found out and expressed in percentage.

FINDINGS AND DISCUSSION

CONSTRAINTS EXPERIENCED BY THE PADDY FARMERS IN THE ADOPTION OF RECOMMENDED PADDY TECHNOLOGIES

This section deals with the various constraints experienced by the respondents in paddy cultivation. In accordance with the

objective, the constraints experienced by the paddy respondents were studied under the four heads, namely

1. Bio-physical constraints
2. Socio-economic constraints
3. Technological constraints and
4. Institutional constraints

The results are presented in Table 1.

1 Bio-physical Constraints:-

The first and foremost bio-physical constraint experienced by the respondents was "High cost of high yielding varieties seed" reported by majority (68.33 per cent) of the respondents. Most of the respondents reported that they were not having enough quantity of seeds for the future use. It was ascertained from the extension workers of the Department of Agriculture that the high yielding variety seeds produced and marketed by the State Government and other agencies are priced higher due to high production cost. Hence the farmers might have reported this constraint. "Complexity of new practices" was ranked as the second important constraint reported by 60.88 per cent of the respondents. Most of the respondents revealed that the adoption of new practices would require specialized skills and require trained labour. This complexity may lead to either over adoption or under adoption of practices.

"Non-availability of suitable high yielding varieties" was expressed as a constraint by half the proportion (55.00 per cent) of the respondents. During the data collection, most of the respondents reported that the seeds of high yielding varieties were not available in time either in local markets or in agricultural office. They further revealed that the high yielding variety seeds are not available in adequate quantity to fulfill their needs during many of the cropping seasons.

2 Socio-economic constraints:-

The first important socio-economic constraint expressed by majority of the respondents (77.50 per cent) was high cost of labour. Most of the respondents expressed that the agricultural labourers were demanding higher wages irrespective of nature of work. In Manipur, most of the agricultural labourers are migrated to other places for employment and earn higher wages when compared to the wages in their own places. This would lead to labour scarcity and inturn would have resulted in high cost of labour. "High cost of inputs" was a constraint expressed by 60.00 per cent of the respondents. This might be due to the rise in price of seeds, fungicides, pesticides and chemical fertilizers every year. But at the same time, the price of agricultural produce had not increase proportionately. In addition, sometimes due to the shortage of inputs, the traders sell their inputs at high cost.

"Non-availability of trained labour in time" was revealed as the constraint by more than half (58.33 per cent) of the respondents. In the study area, most of the respondents reported that the available farm labourers were not properly trained. Since most of the cultivation practices in paddy farming right from the sowing to post harvest were highly skilled oriented and they require skilled labourers for doing these operations. As the experienced labourers are engaged in high wage like construction work, factory work etc., they were not available at the proper time for doing important operations in paddy farming.

"Lack of reasonable support price" was the constraint reported by 54.16 per cent of the respondents. Some of the respondents felt that the cost of the crop production is increased every year. This is due to the increased labour charges and input cost. But minimum support price for paddy does not augment every year.

3 Technological constraints:-

The first and foremost technological constraint expressed by 53.33 per cent of the respondents was "Lack of conviction in the new technology". The technologies like seed treatment, weedicide application, pest and disease management might lead to increased cost of cultivation and risk, especially among the small and marginal farmers thereby reducing the net income of the farmers. Hence, most of the respondents were not convinced about the merits of some of the costly paddy technologies and did not adopt them.

"Lack of awareness or knowledge of about certain technologies" was the constraint expressed by 42.50 per cent of the respondents. Some of the respondents in the study area were not interested to adopt the recommended practices in their field due to lack of awareness about the benefits of new technologies. Due to the poor exposure to media and extension agency contact, they were not aware of many of the recent technologies. This might be the reason for the above constraint.

"Non-availability of desired technology" was reported as a constraint by nearly forty per cent (37.50 per cent) of the respondents in their paddy cultivation. The recommended paddy technologies may not be suitable to all the regions. The recommendations of State Department of Agriculture for obtaining higher yields may not be relevant to the local field conditions. Moreover, the soil and climate factors are also differing from region to region. Hence, the farmers are in use of the location specific technologies.

4 Institutional constraints:-

"Weak extension activities at village level" was reported as the foremost constraint (70.83 per cent) under the technological constraints by the respondents. The possible reason may be due to lack of sufficient extension functionaries to act as facilitators for farmer-to-farmer communication to disseminate the importance of yield gap and methods to reduce the yield gap at farm level. For equipping extension specialists to work in this specialized area, it is necessary that they must be trained in participatory extension methods. This might be the reason for the above expressed constraint in paddy cultivation. The "Unawareness of supplies and services offered by the Government" was one of the institutional constraint expressed by 59.16 per cent of the respondents. The respondents reported that the personnel of the State Department of Agriculture were not taking adequate efforts to create awareness among various sections of the respondents regarding the benefits offered by the Government to boost agricultural production at farm level.

Half the proportion of the respondents (51.66 per cent) revealed that "Insufficient training programme" as the constraint. Most of the respondents did not know the actual potentiality and utility of the recommended practices due to the lack of training programmes. The farmers need adequate training on some of the aspects viz., nursery management, weedicide application, fertilizer application and pest and disease management. "Lack of proper communication system" was reported as a constraint by half (50.00 per cent) of the respondents. Due to the inadequacy of agricultural programmes in radio and television, print media, farm and home visit etc., the respondents were not aware of yield gap and how to narrow down it. This may be the reason for this constraint.

SUMMARY AND CONCLUSION

"High cost of high yielding varieties seed" was the first and foremost constraint reported by majority (68.33 per cent) of the respondents. "Complexity of new practices" was ranked as the second important constraint reported by 60.88 per cent of the respondents. The first important socio-economic constraint expressed by majority

of the respondents (77.50 per cent) was high cost of labour. "High cost of inputs" was a constraint expressed by 60.00 per cent of the respondents. The first and foremost technological constraint expressed by 53.33 per cent of the respondents was "Lack of conviction in the new technology. "Weak extension activities at village level" was reported as the foremost constraint (70.83 per cent) under the technological constraints by the respondents. The "Unawareness of supplies and services offered by the Government" was one of the institutional constraints expressed by 59.16 per cent of the respondents. Half the proportion of the respondents (51.66 per cent) revealed that "Insufficient training programme" as the constraint.

RECOMMENDATIONS

The extension workers of State Department of Agriculture and the scientists concerned to conduct mass awareness campaign as a suitable means to reach greater mass effectively and to create awareness among the paddy famers to suggest to overcome the constraints experienced by the farmers. Government and voluntary agencies should organize method demonstration and result demonstration in farmers holdings with less popular practices and to show the worthiness of various practices and thereby to reduce their constraints.

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Table 1. Constraints experienced by paddy farmers in the adoption of recommended Paddy technologies

Sl.No.	Constraints	No. of respondents	Per cent	Rank
I.	**Bio-physical constraints**			
a.	Non-availability of suitable high yielding varieties.	66	55.00	III
b.	High cost of high yielding varieties seed.	82	68.33	I
c.	Complexity of new practices.	73	60.88	II
d.	Occurrence of heavy weed growth.	40	33.33	V
e.	Heavy pest and disease incidence.	51	42.50	IV
II.	**Socio-economic constraints**			
a.	High cost of inputs.	72	60.00	II
b.	High cost of labour.	93	77.50	I
c.	Non-availability of trained labour in time.	70	58.33	III
d.	Non-availability of credit facilities.	42	35.00	VI
e.	Lack of subsidy for inputs.	63	52.50	V
f.	Lack of reasonable support price.	65	54.16	IV
III.	**Technological constraints**			
a.	Lack of awareness or knowledge of about certain technologies.	51	42.50	II
b.	Lack of conviction in the new technology.	64	53.33	I
c.	Non-availability of desired technology.	45	37.50	III
IV.	**Institutional constraints**			
a.	Weak extension activities at village level.	85	70.83	I
b.	Unawareness of supplies and services offered by the govt.	71	59.16	II
c.	Insufficient training programme.	62	51.66	III
d.	Lack of proper communication system.	60	50.00	IV
e.	Lack of transport facilities.	50	41.66	V
f.	Lack of regulated market.	39	32.50	VI

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