

Constraints Perceived by Rice Farmers in the Adoption of Rice Production Practices in Southern Province of Republic of Rwanda

Nzigiyimana Augustin,¹ M.S. Nataraju² and V. Govinda Gowda³

ABSTRACT

The study conducted in Southern Province of the Republic of Rwanda to document the constraints faced by farmers in paddy production revealed that respondents expressed technical constraints related to pest and disease control (90%), farm yard manure (70%), insufficient water for crop irrigation (62.50%); constraints like high cost of inputs, lack of finance and expensive labor were main financial constraints faced by rice farmers at 48.75 per cent, 45.00 per cent and 41.25 per cent, respectively. Regarding extension and social constraints, half of the respondents (50%) reported lack of trainings on new technologies of paddy production, lack of proper demonstrations and field visits 46.25 per cent, 86.25 per cent reported low price of rice on market, 47.25 per cent reported lack of crop insurance in case of production loss caused by natural calamities and 3.75 per cent reported lack of incentive to innovative farmers.

Keywords : Paddy, constraints, rice farmers, adoption

INTRODUCTION

As advantageous crop in different ways to its growers, rice has been given high priority by the government of Rwanda, especially in the valley bottom marshlands setting the objective of reaching an average yield of 7 tonnes of paddy per hectare. But till now some constraints exist in rice farming leading to low production of paddy and low motivation of farmers. Taking in account that issue, a study was conducted to document the constraints faced by rice farmers in paddy production and adoption of recommended rice cultivation practices in Southern Province of the Republic of Rwanda in order to take certain measures for improving rice productivity.

METHODOLOGY

The study was conducted in Southern Province of the Republic of Rwanda. Taking in consideration the local administrative structure and the grouping of rice farmers in cooperatives in Rwanda, the selection of respondents has been done as follows: Two districts having more area under rice cultivation among four main rice cultivation districts in Southern Province have been selected for the study. The selected districts are Huye and Gisagara. From each selected district, two rice cooperatives have been selected using simple random sampling. Those are Rwasave Rice growers cooperative (COAIRWA) and Rusuli rice growers cooperative in Huye District and in Gisagara district, those are Cyili rice growers cooperative and Ngiryi rice growers cooperative. Using simple random sampling technique, twenty rice farmers were selected from each of the selected cooperative, making

total eighty respondents for the study. To collect data on constraints in paddy production, using the interview schedule, rice growers were asked to give their point of view on the occurrence of the listed constraints, but also to give other non-listed constraints they are facing in rice farming. Those constraints hindering paddy production and making rice farmers low motivated were pertaining mainly to time, technologies, financial resources, labor, infrastructures, inputs, market, *etc.* The respondents facing the same constraints were counted *i.e.* frequencies were taken and their percentages were calculated.

RESULTS AND DISCUSSION

The constraints faced by rice growers were grouped under four categories such as technical constraints, financial constraints, extension constraints and marketing constraints. The rice growers responses were analyzed with frequency and percentage.

Technical constraints

It could be observed from Table 1 that majority of respondents expressed constraints related to pest and disease control (90%) followed by farm yard manure misuse (70%), insufficient water for crop irrigation (62.50%), lower yield (37.50%), inadequate availability of inputs on time (23.75%), unavailability of labor on time (15%) and lack of agricultural machinery (7%). These constraints might be mainly relevant to the complexity of pest and disease control, lack of awareness about the importance of farm yard manure in rice cultivation, insufficient and sometimes inadequate irrigational infrastructures, low commitment in

implementing appropriate package of rice cultivation practices, low erosion control, climate change and use of uncertified seeds.

Table 1: Technical constraints faced by rice growers in paddy production n=80

Particulars	Frequency	Per cent
Non availability of inputs at time	19	23.75
Lower yield	30	37.50
Difficulty in pest and disease control	72	90.00
Water unavailability for crop irrigation	50	62.50
Non availability of labor on time	12	15.00
Difficulty in getting FYM	56	70.00
Non availability of agricultural machineries	4	5.00

Financial constraints

As presented in Table 2, results revealed that high cost of inputs, lack of finance and expensive labour were expressed as major constraints faced by 48.75 per cent, 45.00 per cent and 41.25 per cent, respondents respectively. The probable reason of these constraints could be found in the low purchasing power compared with cost of daily life in its different angles.

Table 2: Financial problems faced by rice growers n=80

Particulars	Frequency	Per cent
High cost of inputs	39	48.75
Lack of finance	36	45.00
Expensive labor	33	41.25

Extension and marketing constraints

Results pertaining to extension and marketing constraints are presented in Table 3. With respect to extension constraints, 50 per cent of respondents reported lack of trainings on new technologies of paddy production, 46.25 per cent reported lack of proper demonstrations and field visits and 12.50 per cent reported lack of technical guidance. With respect to marketing constraints, 86.25 per cent of respondents reported low price of rice in market, lack of crop insurance 47.25 per cent and lack of incentives to innovative rice growers 3.75 per cent.

These constraints could be due to the high cost of training for the farmers, less number of qualified extension personnel, lack of reward system to progressive farmers, lack of agricultural insurance fund, common market in East African Community countries where there was free entry of cheap and high quality rice to Rwanda from Tanzania. These results are somehow in line with the findings in the study of Gangadhara (2006) and Mahatab (2010).

Table 3: Extension and marketing constraints faced by rice growers n=80

Particulars	Frequency	Per cent
Extension constraints		
Lack of technical guidance	10	12.5
Lack of proper demonstrations and field visits	37	46.25
Lack of trainings	40	50.00
Marketing constraints		
Low market price	69	86.25
Lack of crop insurance	38	47.50
Lack of incentives to innovative farmers	3	3.75

CONCLUSION

The study has clearly brought out that the major constraints perceived by farmers were technical constraints related to pest and disease control; financial constraints related to high cost of inputs; and extension and social constraints related to lack of trainings on new production technology of paddy. In order to improve rice production and to overcome the perceived constraints, rice growers suggested the construction and regular maintenance of adequate rice farming infrastructures, particularly those related to irrigation and drainage, improvement of extension system (training, demonstration, information through different channels), availability of inputs at reasonable price and the provision of crop insurance.

REFERENCES

- Gangadhara, M.S., 2006, A Study on Knowledge, Perception and Decision Making among Demonstrator and Non-Demonstrator Farmers of Aerobic Rice Cultivation in Eastern Dry Zone Of Karnataka. *M Sc (Agricultural) Thesis* (Unpub.), University of Agricultural Sciences, Bangalore.
- Mahatab, A., K.M., 2010, A study on knowledge and adoption of aerobic rice growers in Eastern dry zone of Karnataka State. *M.Sc. (Agricultural) Thesis* (Unpub.). University of Agricultural Sciences, Bangalore.