Indian J. Hill Farmg. 11(1 & 2) : 73 — 76 1998

ASSESSMENT OF TECHNOLOGICAL REQUIREMENTS IN FARMING OPERATIONS THROUGH THE USE OF PARTICIPATORY RURAL APPRAISAL

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ABSTRACT

This study is an effort to assess the actual farming situation of Thadrang Village of Meghalaya. The farmer's perception has been given top priority for formulation of research plan for the solution of the problems. It is observed that lack of support system, timely supplly of inputs and absence of animal care facilities greatly hamper the agricultural development. It is concluded that alround effort is needed for the development of the village by judicious exploitation of vast resources (natural as well as human) existing in the stuey area.

INTRODUCTION

The involvement of farmers in every step of technology generation process not only enhances the chance of developing location specific and need based solution, but also increases the chance of adoption by the farmers at the same time. Hence the participatory method is considered the only way to develop viable technologies. The farmers' participation is the key to mobilise the existing resources for their own development bypssing the sheer academic interest of the researchers. The fruitful interaction between farmers, researchers and development departments always leads to the solution which will certainly cater to the needs of the farmers. Keeping the above mentioned factors into consideration, a study was conducted to assess the actual technological requirements in different farming operations with the involvement of the farming to identify the main problems affecting agricultural production through Participatory Rural Appraisal (PRA) technique and to suggest best possible solutions for augmenting agricultural production base on available resources.

METHODOLOGY

This study was conducted in Thadrang village of West Khasi Hills of Meghalaya. PRA technique was followed for collecting and verifying the information. The key informants were identified belonging to different socio-economic status and were interviewed for getting an overall insight of the problems existing in that village and to rank accordingly. They were also asked to name another 30 farmers of that village. Those farmers were interviewed again for prioritising the problems as per their perception. Then the Rank Based Quotation (RBQ) of different problems were separately computed by using the following formulla.

$$RBQ = \sum_{i=1}^{n} \frac{Fi\,(n + 1 - i)}{N \times n} \times 100$$

where,

Fi = Frequency of farmers/key informants for i^{th} rank of problem

N = No. of farmers, and

n = No, of ranks

RESULTS AND DISCUSSION

The revealation of the key informants (Table 1) and their perception regarding the emerging problems clearly indicated the need for the hour. Lack of market facility (RBQ - 96.66) was identified first and foremost problem as they were facing problems in disposing off their farm produce. Though they were commercial in nature, non-availability of farm implements exclusively suitable for hill agriculture was also found significantly influenced the agricultural operations (RBQ - 93.33) followed by lack of supply of improved breeds of livestock (RBQ - 82.48) which hindered them for paracticing composite agriculture. The other significant problems were low return from piggery which was due to non-availability of improved breeds, absence of animal care facilities and non-availability of inputs in time.

As per the perception of the farmers (Table 2) regarding various problems in agriculture and related aspects, non-availability of inputs had been ranked as the most important one (RBQ - 96.38) followed by lack of support system in terms of credit (RBQ - 92.49) and absence of animal care facilities (RBQ - 87.48). The other important problems mentioned by the farmers were low return from piggery, low return from agriculture and low return from fishery The informal discussion with the farmers disclosed that the farming operations were still tradition-oriented and they were eagerly looking forward for the better replacement of most of the traditional practices. Hence, it is desirable to generate and popularise the improved technologies among those peasants.

The assessment of overall agricultural situation of Thadrang village of West Khasi Hills of Meghalaya indicated the improvement of existing condition needing both technological helps and infrastructural facilities. Moreover, relevant information regarding availablity of improved varieties of different crops and vegetables and improved breeds of livestock should be made available through mass media training, demonstration, field visit etc. and these should be conducted regularly for imparting requisite skill to the practising farmers. The research organisations and development departments should work together for formulation of need based and time bound plan for the benefit of the common farmers.

Table 1 . Rank based quotient (RBQ) of the problems (by key informants)

n = 10

Problem	Rank												RBQ	Priority ranking
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII		
Low return from agriculture	-	-	-	-	-	3	-	6	1	-	-	-	45.80	VIII
Non-availability of inputs in time	-	-	-	1	1	7	1	-	-	-	-	-	59.99	VI
Lack of support system	-	-	-	-	-	-	-	-	1	2	3	4	16.66	XII
Lack of technological knowledge	-	-	-	-	-	3	4	2	1	-	-	-	49.16	VII
Lack of market facility	7	2	1	-	-	-	-	-	-	-	-	-	96.66	I
Absence of information agencies	-	-	-	-	-	-	1	2	5	1	1	-	34.15	IX
Absence of animal care facilities	1	2	-	-	6	-	1	-	-	-	-	-	73.32	V
Low return from piggery	-	1	1	5	2	-	1	-	-	-	-	-	73.33	IV
Non-availability of suitable farm implements	3	6	1	-	-	-	-	-	-	-	-	-	93.33	II
Lack of supply of improved breeds of livestock	1	1	5	2	1	-	-	-	-	-	-	-	82.48	III
Low return from fishery	-	-	-	-	-	-	-	-	1	2	6	1	27.48	X
Non-availability of quality fingerlings in time	-	-	-	-	-	-	-	-	1	3	5	1	19.99	XI

Table 2 . Rank based quotient (RBQ) of the problems (by the group of farmers)

n = 30

Problem	Rank												RBQ	Priority ranking
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII		
Low return from agriculture	-	-	5	8	14	2	1	-	-	-	-	-	70.53	V
Non-availability of inputs in time	19	9	2	-	-	-	-	-	-	-	-	-	96.38	I
Lack of support system	9	17	2	2	-	-	-	-	-	-	-	-	92.49	II
Lack of technological knowledge	-	-	-	-	-	-	8	15	7	-	-	-	41.93	VIII
Lack of market facility	-	-	-	-	-	-	-	-	6	22	1	1	25.81	X
Absence of information agencies	-	-	-	-	-	-	-	2	3	9	11	5	21.09	XI
Absence of animal care facilities	8	6	11	3	2	-	-	-	-	-	-	-	87.48	III
Low return from piggery	4	1	3	20	1	1	-	-	-	-	-	-	78.87	IV
Non-availability of suitable farm implements	-	-	-	-	-	-	3	7	16	4	-	-	35.82	IX
Lack of supply of improved breeds of livestock	-	-	-	-	-	-	-	-	-	3	10	17	12.77	XII
Low return from fishery	-	-	-	1	10	12	7	-	-	-	-	-	59.71	VI
Non-availability of quality fingerlings in time	-	-	-	1	9	13	6	1	-	-	-	-	50.82	VII