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IDENTIFICATION AND PRIORITIZATION OF PROBLEMS FACED BY RICE GROWERS: A CASE STUDY OF TEHSIL DASKA, SIALKOT

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Rice is a staple food of half the world's population, and the majority of which is located in Asia. Rice supplies as much as 80% of the daily caloric intake of the teeming population of Asia, where two-thirds of the world's impoverished population lives. It is estimated that 2.3 billion farmers and their households depend on rice as their main source of livelihood. Rice is also an important cash crop of Pakistan. It accounts for 5.9% of value added in agriculture and 1.3% in GDP. However, there is a gap of 50.42% between the average and potential yield of rice. Therefore, all possible measures need to be taken to narrow the gap between potential and average yield. In order to fulfill this challenging job, an integrated effort of researchers, extension workers, administrators and planners is needed to address problems faced by rice growers. Thus the purpose of the study was to identify and prioritize problems faced by rice growers in tehsil Daska. Out of 24 rural union councils (UCs) of tehsil Daska, five were selected at random and from each selected UC, two villages were selected randomly. Fifteen rice growers were selected at random from each sample village to make a sample of 150 respondents. Data were collected with help of an interview schedule. The data thus obtained were analyzed with the help of Statistical Package for Social Sciences (SPSS). Illiteracy among farmers and poorly trained extension field staff were rated as the top most problems by the respondents in the acquisition of technical information. Regarding inputs availability, the top most problems identified were high prices of inputs i.e. electricity, diesel and fertilizers. The top most problem faced by rice growers in obtaining agricultural credit was non-cooperation of banks in obtaining a loan. Regarding marketing, monopoly of middlemen and less price of rice in markets were perceived as the top most problems.
Keywords: Daska, diesel, electricity, fertilizers, rice

INTRODUCTION

Rice is an important food crop in the world second to wheat, feeding over two billion people in Asia alone. It is a staple food of half the world's population, and the majority of which is located in Asia. Rice supplies as much as 80% of the daily caloric intake of the teeming population of Asia, where two-thirds of the world's impoverished population lives. It is estimated that in Asia 2.3 billion farmers and their households are directly or indirectly related to rice for their earning (Mohanty, 2010).

The Ministry of Food and Agriculture reveal that difference between national rice consumption and its local production in Ghana is 453,500 metric tons per year so it has to be imported. The national rice consumption is 561,400 metric tons per year. Local production of rice is 107,900 metric tons per year (Ofori *et al*., 2010).

Shortage of water, floods, water logging, alkalinity, soil erosion, low yield per unit area, low yield per acre unit and traditional practices of cultivation are the major problems regarding agriculture. All of these factors impact the low yields of crops grown in Pakistan. Some general problems like non-availability of water at the right time, poor quality seeds, poor soil management, low yielding varieties, lack of crop protection methods, shortage of irrigation water, credit availability and non-implementation of recent technology in raising crops, add to the low yield and poor quality of crops (Alam and Naqvi, 2003).

The Food and Agriculture Organization of the United Nations (FAO, 2000) in a professional discussion on rice yield gap recognized four important causes of rice yield gaps- these are; biophysical, technical/management, socioeconomic, institutional/policy and technology transmit and linkages. Biophysical factors are about the weather of the area, soil type, water accessibility, pest and diseases. Scientific aspects are linked with tillage, varietal selection and seed source, resource or input (e.g. water, soil, nutrients, seed quality, pest as well as weeds, harvest and post harvest) use efficiency. Socio-economic factors include farmer's socio economic status, household income, family size, farmer's traditions and knowledge. Institutional or policy issues have to do with market price for rice, credit, input supply, land tenure, admittance to market, research and extension support which can be inclined by one way or with help of government bearing.

FAO (2004) revealed that most rice varieties are not achieving their probable yields and in many countries, actual yields are about 4 to 6 t/hac, compared with probable of 10

to 11 t/hac. The first step in tapering the yield gap therefore is to recognize and examine actual and probable constraints to the rice production in exact area (Van Tran, 2006 cited in Ofori *et al.*, 2010). The present study focuses on investigation of such problems in the tehsil Daska.

MATERIALS AND METHODS

The study was conducted in tehsil Daska which consists of 29 union councils (UCs) of which 24 UCs are rural and 5 are urban. Out of the 24 rural UCs, five were selected at random and from each selected UC, two villages were selected randomly. Fifteen rice growers were selected from each sample village using a simple random sampling technique to produce a sample of 150 respondents. The data were collected in 2011 with the help of a pretested interview schedule. The collected data were analyzed using the computer software SPSS. For ranking of various problems faced by the rice growers, a five point Likert scale was used 1 being very low and 5 being very high. The score value allotted to each category of the scale was multiplied with the frequency count and in this way the overall score was computed against all identified problems, which were ranked on the basis of mean values.

Illiteracy among farmers and poorly trained extension field staff were rated as the top most problems by the respondents which fell between high and very high categories but tending towards the high category with mean values of 4.36 and 4.32, respectively. Improper communication strategies were rated between medium and high categories but tending towards the high category with a mean value of 3.7. Inadequate sources of technical information were rated between the medium and high categories but tending towards the medium with a mean value of 3.4. Poor access to information sources and lack of interest on the part of extension field staff were rated between the low and medium categories but tending towards the medium category with mean values of 2.9 and 2.7, respectively. Lack of interest on the part of farmers was also rated between the low and medium categories with a mean value 2.5. The research findings are supported by those of Singh *et al*. (2006) who stated that a large majority (70%) of rice growers had medium level of their perceived training needs for improved rice technology. Similarly, World Bank (2001) reported that poor understanding by researchers and extension staff of the circumstances of farm households (i.e. the lack of farming system perspective) and poor linkages between researchers, extension staff, and farmers had a direct link with lack of available technology.

The top most problems identified by the respondents were high prices of inputs, i.e. electricity, diesel and fertilizers with mean values of 4.87, 4.74 and 4.39 respectively. Prices of electricity and diesel fell between high and very high categories but tending towards the very high category and prices of fertilizers fell between the high and very high categories but tending towards the high category. Lack of implements specially harvesting, threshing machinery and expensive labour for nursery transplanting fell between the medium and high categories but tending towards the medium category with mean values of 3.21 and 3.04, respectively. Adulteration in fertilizers, high prices of herbicides, pesticides and seeds were found between the low and medium categories but tending towards the medium category with mean values of 2.79, 2.56, 2.54 and 2.99, respectively. Fertilizer and chemical application, unavailability of seeds, timely unavailability of fertilizers, shortage of irrigation water and shortage of labor during transplantation were also rated between the low and medium categories but tending towards the low category with mean values of 2.38, 2.36, 2.34, 2.17, 2.11, respectively. Lack of soil preparation/transplantation implements was rated between the very low and low categories but tending towards the low category with a mean value of 1.88. These findings partially coincide with those of Shabbir (2001) who concluded that quality of fertilizer was a basic problem of farmers. He further stated that prices of fertilizer played a very important role in the life of small farmers, the prices were very high and small farmers could not purchase and thus production rate decreased.

The top most problem faced by rice growers in obtaining agricultural credit was non-cooperation of banks with a mean value 4.44 and fell between the high and very high categories but tending towards the high category. Lengthy and complicated procedure for obtaining loan, too late payment of loan and high interest on loan were rated between the medium and high categories but tending towards the high category with mean values of 3.9, 3.88 and 3.80, respectively. Distant banks with a mean value of 3.38 fell between the medium and high category and tending towards the medium category. Lack of awareness of credit facilities from banks with a mean value of 3.00 was perceived under the medium category. The current research findings partially coincide with those of Sharma (2001) who found that small farmers had limited resources to get a loan from banks to have sufficient production for their needs. They get credit from money lenders, middlemen and wholesalers under strict terms. Due to which their incomes are low. The majority of loans are taken by large farmers who have enough resources. Bank procedure for getting a loan was reported to be complex due to which they were unable to use formal credit and benefits.

Monopoly of middlemen and less price of rice in markets were perceived as the top most problems. Monopoly of middlemen fell between the high and very high category but tending towards the very high category with a mean value of 4.84. Less price of rice in markets fell between the high and very high categories but tending towards the high category. Extra commission, high market committee fee, high carriage

and other handling charges, late payment by dealers, high storage cost and lack of storage facilities were rated between the medium and high categories but tending towards the high category with mean values of 3.9, 3.88, 3.80, 3.76 and 3.60, respectively. Distant markets, shortage of transport and improper roads were rated between the medium and high categories but tending towards the medium category with mean values of 3.5, 3.38, and 3.02, respectively. Lack of information about markets was found between the low and medium categories but tending towards the medium category with a mean value of 2.95. The current research findings coincide with those of Anjum (2000) who found that there are still traditional marketing systems in which traders, wholesalers, distributors, and middlemen are the main stakeholders. They have their own terms for the growers in the disposal of their produce. The physical infrastructure in the markets like, cold storage, adequate transport arrangements and processing plants were also inadequate. Basra and Farooq (2010) reported that middlemen exploit the small farmers with both hands i.e. as a seller and buyer. The growers faced problems like high input prices for which they have no voice. Rice marketing is sometimes done by illegal means resulting in low income.

Table 1. Ranking of the problems faced by the rice growers associated with availability of technical information about rice cultivation

Problems	Rank order	Score	Mean	S. D.
Illiteracy among farmers	1	654	4.36	0.62
Poorly trained extension field staff (EFS)	2	650	4.32	0.66
Improper communication strategies	3	546	3.7	0.80
Inadequate sources of technical information	4	520	3.4	0.65
Poor access to information sources	5	425	2.9	0.54
Lack of interest on the part of EFS	6	400	2.7	0.48
Lack of interest on the part of farmers	7	350	2.5	0.47

Table 2. Ranking of problems faced by the rice growers regarding availability of inputs

Problems	Rank order	Score	Mean	S. D.
High prices of inputs				
a. pesticides	8	380	2.54	1.118
b. herbicides	7	382	2.56	1.147
c. fertilizer	3	659	4.39	0.883
d. seeds	9	369	2.99	1.265
e. electricity	1	720	4.87	0.342
f. diesel	2	710	4.74	0.441
Lack of implements/machinery				
a. soil preparation/transplantation	15	281	1.88	0.813
b. fertilizer/chemical application	11	357	2.38	0.800
c. harvesting/threshing	4	480	3.21	1.457
Expensive labour for nursery transplanting	5	457	3.04	1.314
Adultration in fertilizers	6	419	2.79	1.292
Unavailability of seeds	10	361	2.36	0.676
Timely unavailability of fertilizers	12	351	2.34	0.851
Shortage of irrigation water	13	326	2.17	0.503
Shortage of labour during transplantation	14	301	2.11	0.667

Table 3. Ranking of problems faced by rice growers relating to availability of agricultural credit

Problems	Rank order	Score	Mean	S. D.
Non cooperation of bank in lending loan	1	666	4.44	0.63
Lengthy and complicated procedure of loaning	2	585	3.90	0.57
Too late payment of loan	3	582	3.88	0.51
High interest on loan	4	570	3.80	0.53
Distant banks	5	507	3.38	0.56
Lack of awareness of credit facilities from bank	6	450	3.00	0.52

Table 4. Ranking of problems faced by rice growers regarding marketing problems

Problems	Rank order	Score	Mean	S. D.
Monopoly of middle men	1	726	4.84	0.36
Less price of rice in markets	2	666	4.44	0.63
Extra commission	3	585	3.90	0.57
High market committee fee	4	582	3.88	0.51
High carriage and other handling charges	5	570	3.80	0.60
Late payment by dealers	6	570	3.80	0.53
High storage cost	7	564	3.76	0.51
lack of storage facilities	8	540	3.60	0.56
Distant markets	9	525	3.50	0.61
Shortage of transport	10	507	3.38	0.56
Improper roads	11	453	3.02	0.54
Lack of information about market prices	12	444	2.95	0.50

***Conclusions*:** Illiteracy among farmers and poorly trained extension field staff were rated as the top most problems relating to technical information by the respondents. Regarding inputs availability, the major problems identified by the respondents were high prices of inputs i.e. electricity, diesel and fertilizers. The top most problem faced by rice growers in obtaining agricultural credit was non-cooperation of banks. Regarding marketing, monopoly of middlemen and less price of rice in markets were perceived as the major problems.

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