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## **AN ANALYSIS OF SOCIOECONOMIC PROFILE OF RURAL RICE FARMERS IN DISTRICT SWAT**

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### **ABSTRACT**

The study was conducted in district Swat during 2007 to investigate the socioeconomic profiles of rural rice farmers. To this end, primary data was collected through structured questionnaire using a sample of size one hundred allocating to three tehsils selected purposively, each comprising three villages selected on the basis of proportional sampling technique. Rice farmers were found associated with agriculture sector. Income and, consumption pattern was found substandard. Major occupations were teaching, fishing and daily wage earners. Most of the rice farmers were found uneducated and tenants. Men generally made decisions. Villagers used to derive their food sustenance from their own farm products. Cattle, buffalo, cow and poultry were the major livestock. The major sources of income were farm incomes and foreign remittances. The major heads of expenditures were food items, clothing, education, health, electricity, house rent, sui-gas, water and investment activities. The total expenditures recorded were Rs. 14060 per month. They were found engaged in subsistence level of farming. The Govt. should take steps to improve their standard of living.

**Key words:** Socioeconomic Profile, Rural Rice Farmers

### **INTRODUCTION**

Rice is a popular crop of district Swat. It occupied a pivotal place in Swat's domestic food and livelihood security system. Most of the farmers were either directly or indirectly related with it. It became particularly important in the diets of the poor community. According to 1998 census, District Swat has a total population of about 125760 of which approximately 648008 are male while the remaining 69594 are female (NIPS, 2002). The total area of the district is 5337 square kilometer having population density 235.6 persons per square kilometer in March 1998, which was 140.3 persons per square kilometer in 1981 (District Census Report, 1998). Different groups of the community have different socioeconomic profiles. Zaffaroni et al., 1996, surveyed the main socioeconomic features of small and large-scale rice producers and no significant difference was found between the two for the parameters: communication systems; technical assistance; reasons for growing rice. Education, association, land ownership, cattle production, hired labor and machinery characterized larger producers. Pandey and Sanamongkhoun, 1998, studied households features covered: demographic characteristics and land use patterns; rice production practices, input use and economics; household income and expenditure; marketing of outputs; gender roles; sources and types of technology and information; agricultural credit; and economics of technology adoption. Kim, 1993, studied that the proportion of farm income earned from rice in total farm income had decreased due to the rapid growth of farmers' non-agricultural income; almost 50% of agricultural income was earned from rice. The

present study has been designed to investigate the socioeconomic profiles of rural rice farmers in district Swat.

### **MATERIALS AND METHODS**

District Swat was the universe of the study. Three Tehsils of district Swat (Kabal, Barikot and Matta) were selected on the basis of purposive sampling technique. Five villages from each Tehsil have been selected on the basis of proportional sampling technique. For the analysis primary data was used. A sample of one hundred farmers was used. Primary data was personally collected from the respondents through structured questionnaire. The questionnaire was based on both closed and open form questions. The data was usually collected in the farmer's fields, homes or in community centers (Hujras). Simple averages, classification and tabulation were used for the analysis of the data.

### **RESULTS AND DISCUSSION**

The study provided the following information regarding the socioeconomic profiles of rural rice farmers of district Swat:

#### ***Occupation and Family Size***

Agricultural sector was the main stay of the local community and most of population was related either directly or indirectly with it. The economy of the district was predominantly agriculture-based. Other occupations in the district included teaching, fishing and daily wage earners but these activities also supported farming. It was also observed that people engaged in those activities only after they had

completed their seasonal farming duties, so we will not count those activities as primary occupations. The average family size was found 9 per household. They used to live in joint family system. According to population census 1998 in district Swat the average household size is 8.8 (District Census Report, 1998).

#### ***Health and Nutrition***

The basic health facilities were not found sufficient for the rural communities of district Swat. There should be at least one dispensary in each village. There were two big hospitals i.e. Saidu Sharif hospital and Center Hospital but still they were not fully equipped. They were found referring the patients to Peshawar hospitals. Some private clinics were found in villages where the dispensers used to exploit the poor peoples.

#### ***Education Level***

In district Swat the number of male Primary, Middle, High and Higher Secondary Schools are 1017, 69, 65 and 10 respectively. The female Primary, Middle, High and Higher Secondary Schools are 601, 29, 17 and 1 respectively (District Census Report, 1998). Among the hundred farmers 20 % were found educated while the remaining 80 % were uneducated which showed high degree of illiteracy level (Table I).

#### ***Size of Land Holding***

Households possessed different sizes of land ownership. Some households have both lowland and upland paddy fields. In the field survey it was observed that most of the farmers were tenants. They don't possess their own land and so large portions of their produce were exploited from them. In the research area 7 %, 15% and 78 % were found owner, owner-cum tenant and tenant respectively (Table II).

#### ***Area Wise Distribution of Rice Farmers***

In the research area the average size of land holding was 3.471 acres. The maximum and minimum areas possessed by the farmers were 7 and 1 respectively. The modal size of farmers' holdings cultivated in rice is 3.471 acres, and the average household in district Swat contained approximately 9 persons. Larger households generally cultivated more rice land primarily because more labour was likely to be available. The other information obtained from the field study about the nature of area possessing by sample farmers have been presented in Table III in detail.

#### ***Variety Wise Distribution of Sample Farmers***

JP-5 dominated rice production and was a well-known variety of the district and its growers were

75% of the total rice farmers. The share of Basmati-385 rice is 10%. Similarly, the share of Sara Saila, Dil Rosh-97, Swat-1, and Swat-2 was 7%, 3%, 3%, and 2% respectively. All these figures are shown in (Table IV). Choice of variety depended on environment, planting date, quality, marketing, and harvest scheduling. In addition, marketing opportunities played a major role in determining the grain type produced.

#### ***Labour Distribution within the Villages***

The distribution of labour in the district depends upon the nature of occupation and skill. Some people performed their services on permanent Govt. jobs. Some were working on daily wages basis. Some workers were found working together in groups' forms. The head of the group was responsible mainly for coordination and mobilization of laborers. The head of the group served as a conduit for the transfer of information, in addition to arranging and selecting people who were suitable for working in accordance with the criterion and requirements of the work. Such types of labours were seen in agriculture sector and lantering as well. In the process of rice production it was seen at transplanting and harvesting stage. The villagers already have strong local traditions of cooperation and mutual help, which have served them for centuries. For example, whenever a resident has a large task to undertake and requires assistance, many other villagers contribute their help.

#### ***Labour Opportunities and Decision Making in the Households***

Agriculture was the primary employer of the research area. Women here had less opportunity than men did to pursue an education due to traditional limitations and family requirements. Women in the most ethnic group engaged in craft production for family use and sometimes for sale. Beyond that, Swati women generally hold principal responsibilities for household maintenance and childcare. Though female children and grand parents may help with these tasks as well as those of gathering and collecting activities. Child labor was also common there. Men were considered the undisputed heads of the family and thus made all the important decisions. Women make the decisions when it comes to saving money, but men make decisions about expenditure.

#### ***Agriculture***

Agriculture was the largest sector of the district economy and was the main source of livelihood of the rural population. Most of the people in the villages were farmers. The main agricultural practices there were crop cultivation and animal husbandry, which were also the main sources of income in the

villages. The topography of the district was such that not all the land was suitable for cultivation. Most of the cultivation was carried out in the southern areas of the district, mainly in Mingora, Barikot, Kabal, Matta and Khwazakhela. Production of different agriculture crops and their irrigation position is shown in Table V.

#### **Food Availability**

Most of the villagers used to derive their food sustenance from their own farm products. However, some families lived mainly on food obtained from other occupations. They were thus dependent on nature for their livelihood. Primary food supplies such as rice, wheat, onion or vegetables were in short supply there. Natural threats to the food supply included floods, droughts and insect plagues. However, the staple diet of the people was "roti" made of wheat or maize flour. The people were found of meat. The green tea in general and particularly milk tea was very popular in the district.

#### **Cropping Pattern**

The major crops cultivated in the villages for both the upland and lowland areas were onion, wheat, maize, tomato and vegetables. However, in kharif season rice was mainly grown on area situated near river Swat. After the harvesting of the rice onion and/or wheat were cultivated. Some fruit trees like grape, mango, plum, watermelon, apricot, pear and walnut were also grown in the relevant area. Rice was normally cultivated only once a year, from July to November.

#### **Livestock**

Animal husbandry was another subsidiary income for the villagers and also provided a good source of the family's dietary needs. Cattle, buffalo, cow and poultry were the major livestock there. Those animals were occasionally sold but rarely consumed by the villagers. Poultry were more consumed than sold. Within the villages, grazing lands were limited. However, it was common practice for villagers to feed their livestock on free grazing lands. During the dry season rice straw was fed to the animals.

#### **Sources of Income**

On average a rice farmer would probably have a cow or two from which he would be able to sell milk and he may keep small stock such as goats, sheep or poultry. A kitchen garden and a small provision farm would yield fresh vegetables for home consumption, and perhaps a small surplus for sale. He may have a plot of Maize, which yields a couple of hundred rupees or so. Although some farmers used to enjoy non-agriculture incomes but out of all other sources

of income, agriculture was the main source of income of the rice farmers. Some farmers have their own shops in the villages while some were found investing their incomes in animal trade. The trend of investment in bonds was too low because their saving level was substandard which showed that they were relying on subsistence level of farming. However some members of the family were found engaged in other occupations. Mostly, they were carpenters, masons, and public school teachers and very few of them were Govt. servants. Foreign remittances were also the main component of non-agriculture incomes.

#### **Consumption Pattern**

Information about the expenditures on food items, clothing, education, health, electricity, house rent, sui-gas, water and investment activities were obtained. Food items were the major share of expenditures. Food items included beef, mutton, tea, chicken, sugar, ata, vegetables, eggs, and fruits. The average expenditures on this head were Rs.4000 per month. Clothes were not systematically consumed. However, before Eid they used to buy new clothes for their families. The average consumption was Rs. 300 per month. The share of education expenditures was too low. Most of their children were admitted in government schools rather private schools. Because they were not able to admit them due to financial constraints. Expenditures on education were included on textbooks, uniforms and transportation. The estimated expenditures were Rs. 2000 per month. Similarly, health expenditures also play a significant role out of the total expenditures. It was not a regular component however average monthly amount spent on this head was observed. Health expenditures included on headache, toothache, cold, fever, stomachache and soar throat. Total average expenditures were estimated as Rs. 1000 per month. Electricity charges were on average Rs. 600 per month. Main electricity items were iron, washing machine, fan, radio and bulbs. The housing conditions were very poor. They used to live in hired houses. However they were less expensive as compared to that of urban areas. The farmers pay rent either in the form of cash or manure. Average house rent was observed as Rs. 300 per month. Sui-gas (natural gas) was also consumed at the rate of Rs. 500 per month. They used to fill empty cylinders by town shopkeepers. The average price of gas was Rs. 50 per kg. The expenditures on water purposes were Rs. 60 per month. Most of the farmers used to consume tube wheel water facilitated by the government. The farmers used to pay water bill on monthly basis. Some farmers had their own wheels at home while some used neighbor's wheels. The farmers used canal and river water for their livestock free of cost. The

total expenditures recorded were Rs. 14060 per month. Apart from total expenditures on these main items, large sums will had to be spent on the marriage of daughters, including the provision of a dowry; on regular ritual events; on birth and funeral ceremonies, and perhaps on the education of a son who, it was hoped, will become a white-collar worker or even enter a profession. Money will had to be saved for the repair or rebuilding of the house, and for the purchase of simple furnishings. As district Swat was consumption-oriented economy, the share of investment expenditures was too low. Most of household expenditures were based on non-economic pursuits. The farmers were also found to invest a certain amount of money in gold jewellery for their women-folk, particularly to brides. Savings were in the form of cattle, jewellery, or were lodged in the Post Office Savings Bank, to be drawn upon in emergencies, though the level of savings amongst. Purchases of consumer goods such as radios, bicycles, and electricity were fairly high, and almost there was one sewing machine in every rice farmer home.

#### ***Return and Surplus***

Farmers in district Swat area usually used to produce good grades of rice. The farmer was paid on average Rs. 400 per maund for "Super" grade and 250 per maund for "Broken". Farmers from their fields got different amounts of yield but on average per acre rice yield was 40.5 maunds valued at market price of Rs. 366.67 per maund. The average revenue from one acre of area was Rs. 18600.14 including rice straw. Rice straw was also a main component of revenue. From one acre of rice area, rice straw revenue was on average Rs.3750 valued at prevailing market price. From the 80 bags of paddy produced about 5 bags will be retained for seed, stock-feed and for milling into rice for home consumption. The remaining 75 bags could be expected to yield 70 bags of good quality rice and about 5 bags of "broken" which will sell to the Rice Market for Rs. 400 (more or less according to the grades he receives). On the basis of the costs and yields pointed out, the farmer would be left with a surplus of average Rs. 6877.64.

#### ***Credit and Financing***

Credit facilities available to the rice farmers in district Swat were probably inadequate to their needs

for financing rice cultivation, and it was found that only a very small proportion of loans actually went into financing farm operations. Some part of loans taken almost certainly went into house construction or repairs, whilst some was used to buy oxen. Cash advances from millers served as a stopgap between harvest and receipt of a cheque from the Rice Marketing, and were used mainly for domestic consumption or to finance weddings. There were a large number of groceries and stores in District Swat, all of which extended credit to regular customers, and shop debts are paid off "after crop." Shopkeepers cannot survive unless they are prepared to carry a large sum in outstanding debts, and this usually exceeds their own indebtedness to wholesalers.

#### **CONCLUSION AND RECOMMENDATIONS**

From the facts and figures it can be observed that Swati rice farmers were characterized by subsistence level of farming. The average family size was found 9 per household, which was higher than population census 1998. Major occupations were teaching, fishing and daily wage earners but these activities also supported agriculture. There was lack of sufficient medical facilities for rice farmers. Most of the rice farmers were found uneducated and tenants. The average size of land holding was observed as 3.471 acres. JP-5 was observed as the dominant variety and its growers were 75% of the total rice farmers. There was free mobility of labor from area to area. Men generally made decisions. Agriculture was the primary employer and main source of livelihood of rural area. Villagers used to derive their food sustenance from their own farm products. Cattle, buffalo, cow and poultry were the major livestock. The major sources of income were farm incomes and foreign remittances. The major heads of expenditures were food items, clothing, education, health, electricity, house rent, sui-gas, water and investment activities. The total expenditures recorded were Rs. 14060 per month. The average revenue from one acre of area was Rs. 18600.14 including rice straw while the farmer would be left with a surplus of average Rs. 6877.64. The share of non-institutional credit was more than institutional credit. The farmers should utilize their income on economic pursuits so as to improve their standard of living. Govt. should made efforts to provide basic facilities to the rice farmers.

**Table I** *Distribution of sample farmers by level of education*

S.No	Village	Educated	Uneducated	Total
1	Akhunkalay	3	11	14
2	Hazara	2	8	10
3	Dagai	3	6	9
4	Parai	2	10	12
5	Aboha	4	11	15
6	Kota	2	10	12
7	Asharai	1	13	14
8	Durashkhela	2	6	8
9	Baidara	1	5	6
Total		20	80	100

Source: Field Survey

**Table II** *Distribution of sample farmers by size of land holding*

S.No	Village	Owner	Owner-cum-tenant	Tenant	Total
1	Akhunkalay	1	3	10	14
2	Hazara	0	2	8	10
3	Dagai	0	1	8	9
4	Parai	1	2	9	12
5	Aboha	2	2	11	15
6	Kota	1	1	10	12
7	Asharai	1	2	11	14
8	Durashkhela	1	1	6	8
9	Baidara	0	1	5	6
Total		7	15	78	100
%age		7	15	78	100

Source: Field Survey

**Table III** *Area wise distributions of rice farmers*

S.No	Village	Average Size of Land Holding (acre)	No.of Respondents	Irrigated (acre)	Unirrigated (acre)
1	Akhunkalay	2.5	14	2.5	0
2	Hazara	2.7	10	2.7	0
3	Dagai	2.5	9	2.5	0
4	Parai	2.8	12	2.8	0
5	Aboha	1.5	15	1.5	0
6	Kota	0.5	12	0.5	0
7	Asharai	0.5	14	0.5	0
8	Durashkhela	1.5	8	1.5	0
9	Baidara	2.0	6	2.0	0
Total		16.5	100	16.5	0

Source: Field Survey

**Table IV** *Variety wise distribution of sample farmers*

S.No	Variety	Number of Respondents	% age Growers	Variety	Yield per Acre (Maunds)
1	JP-5	75	75		40
2	Basmati-385	10	10		45
3	Sara Saila	7	7		42
4	Dil Rosh-97	3	3		40
5	Swat-1	3	3		38
6	Swat-2	2	2		38
Total		100	100		

Source: Field Survey

**Table V** *Productions of major crops in Swat*

Crop	Production in tones			
	Irrigated	Unirrigated	Total	
Kharif	Maize	40308	40487	80795
	Rice	16720	-	16720
Rabi	Wheat	29026	35820	64846
	Barley	207	712	919

Source: Agriculture Statistics, NWFP. 1997-98

## REFERENCES

- Cotlear, D. 1989. Desarrollo campesino en los andes. Inst. de Estudios Peruanos. Lima Peru.
- Desai, S. 1992. The influence of family structure on child welfare in Latin America and West Africa" in understanding how resources are allocated within households IFPRI policy briefs 8. Washington D.C.
- Govt. of Pakistan. Agric. Statistics of Pakistan (1999-00). Econ. Wing, Ministry of Food, Agric. and Livestock, Islamabad.
- Gray, I. 1994. The changing structure of rural communities. Rural Soc. 4(3/4): 17-21.
- Hoddinott, J. 1992. "Household Economics and Economics of Households" in understanding how resources are allocated within households IFPRI policy briefs 8. Washington D.C.
- Kim, M.H. 1993. Structure of the rice market and proposals for rice policy changes in Korea. J. Rural Dev. Seoul. 16, 1, 101-131.
- NIPS. 2002. Pakistan population data sheet, An estimate of population by provinces and districts of Pakistan 2001, 2004, 2011, and 2021. Islamabad: National Inst.of Pakistan Study.
- Pandey, S. and M. Sanamongkhoun.1998. Rainfed lowland rice in Laos: A socio-economic benchmark study. Int. Rice Res. Inst. (IRRI), Manila, 124 p.
- Thomas, D. 1992. The distribution of income within the household and household expenditure patterns." in understanding how resources are allocated within households IFPRI Policy Briefs 8. Washington D.C. Wilson, P. A. 1995. Embracing locality in local economic development'. Urban Studies. 32(4/5): 645-658.
- Zaffaroni, E., P. R.Taboada and J.G. Correa, da-Silva. 1996. Analysis of small and large scale rice production systems in Arroio Grande, Rio Grande do Sul: socioeconomic Aspects. Lavoura-Arro zeira. 49, 428, 19-24.