

SOCIOECONOMIC AND RESOURCE PROFILE

Area Profile

The villages reflect a picture of agropastoral economy where agriculture predominates but where livestock raising also plays a major role and is a prime income contributor. This becomes the focal point in activity analysis where the type of agriculture practised is conditioned by the ecology/topography, and where any major agricultural activity is constrained by the rugged and unstable surface of a mountainous region in combination with rainfall and the duration of seasons.

Cultivation is the major occupation of the people, with over 69 per cent of the geographical area of the villages being under cultivation, as is shown in Table 1*. Of the cultivated area, 60 per cent is irrigated while the rest is rain dependent. Thus the potential of the crops that can be grown here is wider in range than those areas of the region that are rainfed only or predominantly rainfed.

There are some 30 schools in the area. Table 2 shows these institutions category-wise as well as village by village. The project area has 73 trained teachers of which 46 are in Lilownai, 20 in Alpuri, and seven in Shahpur. In addition, there are 38 untrained teachers of which 12 are in Lilownai, four in Alpuri, and 22 in Shahpur. Hardly one-third of the schools have any furniture, while less than 25 per cent have drinking water facilities and latrines. Only one school is equipped with a library and laboratory.

The area is very poorly placed in terms of health facilities. There are only five dispensaries staffed with a few paramedical staff and hardly any qualified doctors. Furthermore, of the 3,007 houses (1508 in Lilownai, 586 in Alpuri, and 913 in Shahpur), 89 per cent are mud houses, and the balance of 11 per cent concrete or mixed (partly mud, partly concrete). Hardly 29 per cent of these houses have drinking water facilities through any potable water supply scheme. Drainage/sewerage facilities are almost non-existent. The agricultural facilities available to the villages are given in Table 3, while Table 4 shows the number and kind of commercial/service establishments (shops) obtaining in the sample villages.

Transport and communication facilities are almost non-existent. There are no public transport facilities, no post or public call offices, no connecting roads, and no newspapers. In fact, the only means of contact with the outside world is through radio sets and an occasional television set where there is electricity.

In Lilownai, the commodities traded with other towns include pulses, livestock, milk products, eggs, and poultry. Alpuri only trades in locally grown vegetables while Shahpur trades in livestock, poultry, eggs, fodder, and pulses. A profile of household industries is given in Table 5.

Profile of the Households

The predominant family system is the joint family system and about 73 per cent of the households fall into this group. The tenurial status of the houses reveals that about 82 per cent are owned by families, while another 15 per cent are provided by landlords, and an insignificant number is rented-in and provided by the Government (these are for government employees).

* All the tables are included at the end of the text.

Information on houses by type shows about 62 per cent of these to be mud-baked (*katcha*) while about 26 per cent are concrete houses, the latter including the houses provided by the Government, the rented-in category, and some of the owned-category houses. Most of the concrete houses are located in Shahpur. The semi-*pucca* types of house are a combination of partly mud-baked and partly concrete sections.

In terms of the facilities/utilities available to the households, about 78 per cent of the respondents had clean drinking water facilities, while only 27 per cent had both electricity and clean water. These were the only facilities available to the households. Sanitation, sewerage, water for domestic use, and natural gas were almost unknown to the respondents. About 22 per cent of the respondents did not even possess the facilities of clean drinking water and electricity.

The literacy status showed about 68 per cent of the respondents to be literate while 32 per cent did not even possess village level education. This is, however, much higher than the overall literacy ratio of these villages which, according to the key informants, was 26 per cent for boys and about two per cent for girls.

Land Ownership/Tenancy Status

An analysis of the tenancy status of the land shows that about 60 per cent of the respondents own the agricultural lands they work and about 20 per cent are tenants. Only three per cent are owner-cum-tenants. Seventeen per cent are non-agricultural families.

The tenancy system is mainly of the "share tenancy" kind where the tenant pays rent in the form of a certain percentage of the crop grown. Sometimes the tenant may be allowed to keep all of the residual of the crop, such as straw or hay, while in some cases they may have to share a certain proportion with the landlord.

Exchange Patterns

The exchange pattern may take various forms depending upon the type of goods and services that are under consideration. For commodities, about 26 per cent of the respondents reported that "goods for goods" prevailed. In about 29 per cent of the cases, goods for services were reported while, in about 22 per cent of the cases, the exchange pattern took the form of service for service. The most common form of this is what is known as "obligation labour" in which labour is provided (mainly during harvesting) in exchange for labour. In about 15 per cent of the cases, goods and services are exchanged for cash whereas, in about 26 per cent of the cases, a mixed exchange system prevails which is a combination of exchange of goods and services for goods/services as well as cash (Table 6).

Production Structure

The production structure of the crops shows the typical characteristics of a subsistence economy with little marketable surplus. However, in many cases the tenant's share of production is less than the family consumption needs, since part of the crop has to be given to the landlord as payment for the land cultivated.

The major crops grown in the villages are maize, wheat, and (in a few cases) rice. Only 18 respondents sold some of their maize crop and only one respondent sold some wheat (Tables 7 & 8). Since the largest frequency of sales is to be found in the lowest output range it may very well be indicative of distress sales.

Productivity

Agricultural productivity is low, especially in the rainfed cultivated areas, as a result of the lack of quality seeds, non-regularity of water supplies, and inadequate use of farm implements. Equally important is the fact that farm practices in the *barani* area are not conducive to improved productivity. No chemical fertilizers are applied, nor are weeding and maintenance undertaken. The average crop productivity in the sample villages is as given below:

maize	-	1.2 tons/hectare, and
wheat	-	1.0 ton/hectare.

Cropping intensity in the *barani* area is 140 per cent and in irrigated areas it is about 180 per cent.

Sources and Amounts of Income Available to the Households in Cash and Kind

Respondent households have two sources of income. The first is the source that provides cash income or one which can be easily converted into ready cash. This includes the cash obtained from:

- o the sale of agricultural crops, fruits, and vegetables;
- o the sale of other commodities produced by the household, including poultry, poultry products, dairy, and livestock;
- o the income or profits from shopkeeping (of all kinds) and small businesses;
- o the earnings of wage labour and other services provided in the informal sector; and
- o all types of employment in the formal sector, especially government employment.

According to the survey, only 15 per cent of the respondents are involved in the sale of agricultural crops or fruits and vegetables. Thus agriculture is not an important source of cash income for these people. In fact, agricultural income meets only 30 per cent of the household expenses. Moreover, the total amount of income from this source for 85 per cent of this category lies between Rs 5,000 to Rs 25,000 per annum (which comes to a monthly income of between Rs 417 to Rs 2,100). This becomes even more critical (if it is the only source) when the household generally consists of eight - 10 members. Only 15 per cent of this group marketing agricultural goods earn between Rs 26,000 - Rs 50,000 per annum, i.e., between Rs 2,167 to Rs 4,167 per month.

Activities centering around the sale of other commodities produced by the household are very limited and are reported by only about four per cent of the respondents, where as, for about 67 per cent of this group, the annual income from this source lies in the range of Rs 5,000 to Rs 10,000 and, for about 33 per cent, it lies in the range of Rs 26,000 - Rs 50,000.

Shopkeeping and business as sources of earning are undertaken by about 22 per cent of the respondents. In this category, about 73 per cent of the respondents earn between Rs 5,000 - Rs 25,000 per annum while about 28 per cent earn between Rs 25,000 to above Rs 100,000 per annum.

The service sector, including wage labour, domestic help, cooks, and caterers has a large group of respondents, i.e., about 32 per cent of the total. About 76 per cent of the individuals in this category earn between Rs 5,000 - Rs 25,000 per annum; about 21 per cent earn between Rs 25,000 to Rs 100,000

per annum; and about two per cent earn more than Rs 100,000 per annum. However, the constraint of this category, especially for wage labour, is that the climate and terrain of the region makes seasonal employment only possible. In the winter months, workers need to move to the cities in search of employment.

The largest group of respondents is in the category of government employees holding permanent jobs and employees in the formal sector. These account for 42 per cent of the total. More than half of these respondents earn between Rs 5,000 - Rs 25,000 per annum, while 46 per cent earn between Rs 26,000 to Rs 100,000 per annum. Earning-wise, this category of employees is better off and they also have the advantage of possessing a job all the year round (Table 9).

The second major type of income is earnings in kind (Table 10). This category includes the value of agricultural production which is either produced on the farm and consumed by the households, between which payment is made in kind (crops) for services rendered, or as rent for land. Income in kind also comes from the milk products and poultry that are used either in exchange or as a means of payment; from meals provided in lieu of cash payments; and from the provision of free housing facilities.

In the survey area, about 68 per cent of the respondents have used agricultural produce as payment for services and as payment for rent and have used the farm produce for home consumption instead of marketing it, and thus it can be viewed as a source of income. About 84 per cent of the respondents in this category have earned (converted into rupees by the market price of the commodity) from Rs 5,000 to Rs 25,000 per annum, while 10 per cent have earned between Rs 26,000 - Rs 50,000 per annum and about six per cent have earned more than Rs 50,000 per annum. The importance of this source of income lies in the fact that, even if farmers do not have any cash, they are able to meet their consumption needs for these commodities without the cost and inconvenience of having to acquire them. Another important fact is the use of produce for payment where exchange and payment in kind reflect the level of development of the economy.

Income substitution through milk, milk products, and poultry, along with being the medium for payment in kind, seems to play a minor role in the overall picture since only three per cent of the total respondents engaged in any such activities, and the earnings from this source also form an insignificant amount; being less than Rs 5,000 per annum. However, their use in the household has a positive effect because they help to raise the nutritional level, especially of children.

The category that shows the income saved from meals that are provided by the employer covers only about two per cent of the total respondents and the income saved is also less than Rs 5,000 per annum.

Finally income saved from housing facilities provided also involves only about two per cent of the respondents and the range lies between Rs 5,000 to Rs 10,000 per annum. This category includes government employees who can avail themselves of the facility of free or subsidised accommodation.

Infrastructure

According to the data, about 35 per cent of the respondents were not aware of the distance to the main road while about 59 per cent of them seem to be located at a distance of one to five km away, another five per cent live at a distance of six - 10 km away, while one respondent is located at 21 to 25 km distance from the main road.

For the majority of respondents, the agricultural market is located at a great distance and, in the absence of proper roads, marketing seems to be an unviable proposition. About five per cent of the respondents had no knowledge about the agricultural market, whereas 29 per cent of the respondents need to travel

between one to five km to reach the market, another one per cent need to travel between six to 15 km. The bulk of the respondents, i.e., about 60 per cent, are located between 51 to 75 km distance from the market and another five per cent need to travel more than 75 km to reach the market.

The health cover provided to these villages is inadequate in terms of the personnel provided as well as the number of units. In two out of the three villages surveyed, the respondents were indifferent regarding the availability of medical facilities at the health centre. About 29 per cent of the respondents did not know where the health centre was located, while about 60 per cent lived within a range of one to five km from the health centre. About nine per cent lived at a distance of about six to 15 km, while about two per cent lived within 16 to 20 km from the health centre.

Although there are relatively more schools for boys than for girls, about 45 per cent of the respondents were unable to identify the location of the schools, while 52 per cent revealed the schools to be located at a distance of from one to five km and another three per cent of the schools were at a distance of six to 15 km.

Although there is one branch each of the Agricultural Development Bank of Pakistan, the National Bank of Pakistan, and the Muslim Commercial Bank in these villages, about 23 per cent of the respondents did not know about their existence, while 67 per cent lived from one to five km away. Six per cent were located from six to 15 km away and about four per cent of the respondents were at a distance of from 16 to 20 km from the banks.

Input suppliers seemed to be invisible to the respondents. About 55 per cent of the respondents did not have any information regarding the location of these suppliers; about 26 per cent were at a distance of between one to 10 km away, while about 19 per cent were located at a distance of from 51 km to more than 75 km (Table 11).

In terms of the quality of the available infrastructure, the information on roads shows that, for about 48 per cent of the respondents, the branch roads, and for 99 per cent of the respondents, the streets, are unmetalled, while for 52 per cent the branch roads are metalled and for one per cent the streets are metalled.

For health centres there seems to be one basic health unit (BHU) in all the three villages and one maternal and child health unit (MCH) in both Alpuri and Shahpur that are known to the respondents. There are no private clinics with qualified doctors, but the respondents were aware of two public dispensaries staffed by dispensers/technicians.

Where educational institutions for males are concerned, almost all the respondents in Alpuri and Shahpur knew about the existence of one primary, middle, and high school, while in Lilownai the respondents were aware of from two to five middle schools, one high school, and up to 10 primary schools. For girls in Lilownai and Shahpur most of the respondents knew about primary and middle schools, while in Alpuri they were aware of the primary school only.

In terms of other institutions, there is a welfare institution in Lilownai called Shangla Welfare Association which promotes education and provides financial support to some needy families.

Resources

Land. Although agriculture is the main occupation, the existing land use pattern shows the available land to be rather limited in quantity and quality. The results of the Rapid Rural Appraisal and in-depth discussions revealed the predominance of *barani* (rainfed) cultivation. In Alpuri 60 per cent of the

respondents practised *barani* cultivation, while in Lilownai there is no irrigated cultivation. In Shahpur both types exist but *barani* is again more prevalent than irrigated cultivation.

Another important feature of this group of respondents is the degree of participation in agricultural pursuits. About 60 per cent of the respondents are involved in crop production. For those practising agriculture, the prevalent land size is between one to five acres (69 per cent), the 5.1 to 10 acre category accounts for about 14 per cent, ten per cent of the respondents fall in the 10.1 to 15 acre category, five per cent hold between 30.1 to 40 acres, and two per cent are in the 50 to 100 acre group.

Land Use Pattern - Current State. The land use pattern varies among the villages. However, forest areas predominate in all the villages (with 25 per cent of the land area under forests), albeit more in some than in others. The forests are communal property, but are protected. The people have the right to use them for grazing, collecting brushwood, firewood, and wood for domestic use, as well as for obtaining a share of the earnings from timber. Pastureland and grazing land are also communal property but are not green all the year round, and hence forests are often used for grazing. They account for about five per cent of the land. The areas that are not available for cultivation, because they are under buildings and roads, are insignificant in quantity and in most cases were from the non-cultivable land portion. Water-logging and salinity are problematical but soil erosion is a problem in rugged areas where rains are torrential. This accounts for a large part of the land. The farmers do not, generally, leave the land fallow.

Land-Use Pattern - Determinants. The factors that govern the current land use pattern can be grouped under three major categories, namely:

- i) geographic/climatic reasons;
- ii) absence of inputs and suppliers; and
- iii) lack of infrastructure.

The first category includes the terrain, topography, and climate of the area which, according to the respondents, are major constraints to improving agricultural production. The terrain and topography also hamper the provision of canal irrigation facilities because of the location of the area at a high altitude and on rugged surfaces. Besides, it is also difficult to construct and maintain roads in this area without sustained efforts all the year round. Between 40 - 80 per cent of the respondents gave this as a reason for the current land use pattern.

Lack of proper supplies of inputs (quality-wise and timeliness wise) such as seeds, chemical fertilizers, agricultural implements, credit facilities*, and irrigation, along with the financial constraints of the farmers was given as the second set of reasons, while lack of infrastructure, such as proper roads and agricultural markets, was given as the third group of major factors (Table 12).

Despite these constraints most of the respondents felt that their land was fit for cultivation but that improvements could only be brought about with the provision of facilities (inputs, techniques, and infrastructure). Between 16 - 40 per cent felt that the land would be better utilised if it was used for forests and grazing ground. This opinion came from those whose lands suffer from soil erosion because of the torrential rainfall, deforestation, topography, and other causes and also for those who possess livestock but do not have resources to feed their cattle properly. Between 20 - 25 per cent felt that dairy farming would be a productive enterprise if it was undertaken, but none of them had been practising it

* Lack of credit facilities, as reported by the farmers of Shahpur village, may be the result of ignorance about the existence of these facilities and/or the terms and conditions related to taking advantage of such facilities as collateral.

as an enterprise. Their opinions were merely based on the livestock they maintained and comparisons were made on the basis of the yields/returns from the cultivated lands and returns from their livestock (milk and milk products) (Table 13).

Trends in Man-land Relationships. The man-land relationship does not show a very uniform trend, since there are a multiplicity of factors that govern this relationship, e.g., fragmentation of landholdings as a result of inheritance laws, increase in the size of population, climatic reasons that render land out of use, and poverty due to which people may be forced to sell their lands. However, the general trend that emerges reveals about 10 per cent of cases (in Shahpur) where the present generation have become landless. In the land cohort of up to five acres in all the villages (irrigated and rainfed), the current generation has improved the landholding position in 60 per cent of the cases while in the remaining 40 per cent of cases the position is either static or there is a fall in the landholdings.

Incidentally, improvement in the landholdings is shown in the case of joint families where, even when the ownership of the land is different, it is cultivated as a single unit and the respondents consider the property to be a combined holding. In all the other land size categories, there is a fall in the size of the holdings of the current generation. The decreasing rate of holdings increases with the increase in the land size category. For example, in the more than 50 acres' category, there were four respondents who possessed this much land in the last two generations but presently only one respondent possesses this amount of land. This is because the laws of inheritance, together with the land reform regulations, allow for the distribution of landholdings to the extent to which the economic size of holdings, or the subsistence size, whichever the case may be, is not disturbed.

Status of Land Resources. The status of land resources currently existing, in terms of quality and quantity, reveals that the majority of the respondents consider the land to be inferior in quality and insufficient in quantity to provide a reasonable standard of living for those depending on agriculture as their main source of living (Table 14). Many also felt that there is a deterioration in quality due to over use and to production on unstable and fragile soils.

Status of Other Resources

Water. Water, which is a major resource for all types of activities, is viewed here from three angles. Firstly, its use and availability for drinking purposes; secondly, for irrigation purposes; and thirdly, for domestic use. For drinking purposes only 10 per cent of the respondents in Lilownai complained about the lack of water. However, between 30 - 40 per cent felt that the quality was not good.

For irrigation purposes, water is available in Alpuri and Shahpur (between 30-35 per cent of the respondents) but not available in Lilownai. More than 53 per cent of the respondents in Shahpur felt that the water supply was insufficient (Table 15). For household or domestic purposes, water seems to be available but the quality is not good.

Minerals. The mineral wealth available/known to be existing in these areas includes marble, soapstone, chromite, barite, lead, and zinc. The quality of all these minerals is believed to be good. However, it should be noted that, in most cases, quality depends on the method/techniques of quarrying and extraction undertaken.

There has been an increase in the quantity of resources mined over time. For example, marble has been extracted at the rate of five metric tons per day and soapstone at the rate of two metric tons per day during the last year. The difficult terrain, lack of infrastructure, climatic conditions, and lack of interest by private parties, owing to the relative distance and inaccessibility of the reserves, are some of the major constraints to the development of the mineral sector in the area.