

RURAL POVERTY RESEARCH PAPER SERIES

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RURAL POVERTY IN NEPAL: A CASE STUDY OF PANCHTHAR DISTRICT

**Khem K. Dehal
Manoj K. Shrestha**

**HMG-USAID-GTZ-IDRC-FORD-WINROCK PROJECT
STRENGTHENING INSTITUTIONAL CAPACITY IN THE
FOOD AND AGRICULTURAL SECTOR IN NEPAL**



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RURAL POVERTY IN NEPAL:
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Khem K. Dahal*
Manoj K. Shrestha*

INTRODUCTION

Poverty is heavily concentrated in the rural areas of developing countries. One-fifth to one-half of the rural poor are small subsistence farmers--thus more vulnerable to calamities and harder to reach with development programs. By almost any standard, Nepal is one of the least developed countries in the world. The GNP per capita is about US\$ 160. Agriculture is the main sector of the economy and generates over 55 percent of the GDP, absorbs more than 90 percent of the labor force, and constitutes about 80 percent of the exports.

The Sixth Development Plan (1980-85) made less progress than anticipated toward reducing the severe and widespread poverty in Nepal. This poverty is caused by a lack of exploitable mineral resources, low workforce productivity, high population growth rates, poor agricultural policy, and severe topographical disadvantages.

Given the population growth rate, independent economists calculate that even if the current two percent annual growth rate in GDP doubles, half of the Nepal's population will still be living below subsistence level at the turn of the century (Ali, 1980).

Objectives

The objectives of this study are as follows:

1. Determine the poverty line in one area--Limbaun region of Panchthar district.
2. Measure the extent of poverty and examine its nature in the study area.
3. Assist decision makers in planning appropriate antipoverty programs.

Methodology

The measurement of poverty has two components. First, a poverty line is specified, the threshold income below which one is considered poor and reflects the socially accepted minimum standard of living. Second, the intensity of poverty suffered by those below the threshold income is measured after the poverty line is determined.

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The poverty line is calculated using the following techniques:

1. The minimal subsistence norm with nonfood items is used to determine threshold income.
2. The break-even technique determines the average equality point of expenses and income of each family, the point which equates income and expenses with consumption. Income below this point means that the family is beginning to run into economic difficulty or poverty. These techniques are used in the United States and Japan to determine the poverty line.
3. The poverty index is calculated following Sen's ordinal welfare approach (World Bank, 1978).

The nature of the poor is analyzed by disaggregating the sample households into groups on the basis of household size, ethnic group, and size of landholding to analyze the relationship between poverty and these characteristics.

Panchthar is one of four districts of the Mechi Zone, in eastern Nepal. The study area is the Limbuan region. Most of the households are Limbus, followed by Brahmin-Chhetris, Tamangs, Rais, tailors (darji), and Newars. Almost all the households have similar types of economic activities and socioeconomic characteristics.

The data were gathered from the Imbung and Yangnam Village Panchayats of Panchthar District. Eighty-nine households were randomly selected for interview (51 from Yangnam and 38 from Imbung). The list of the households was obtained from the office of the Chief District Officer, Panchthar. All the necessary information was collected through a structured questionnaire.

POVERTY: EXTENT AND NATURE

The Poverty Line

If a family falls below the poverty line, the family no longer saves, drawing on savings, selling assets, or incurring debt to maintain consumption. The break-even or "wolf point" is regarded as the poverty line and people falling below this line are poor.

Using per capita monthly income and consumption expenditure figures, a linear consumption function is estimated providing a wolf point of NRs.216. This calculation shows how many poor there are in a population. However, as the majority of Nepalis live in rural areas in an impoverished condition, it would be more meaningful to determine the absolute poverty line.

The following linear consumption function estimates the wolf point (Bronfenbrenner, 1976):

$$C = a + by,$$

Where,

$a/(1-b)$ = the wolf point level of income/expenditure,
a = intercept of the consumption function,
b = marginal propensity to consume.

As noted earlier, to determine the absolute poverty line, the minimum subsistence norm is followed--the value of a consumption basket considered to represent the socially accepted "minimal" standard of living. There is great disagreement regarding the minimum subsistence level acceptable by society, even though this norm is widely used in determination of poverty lines. Following the FAO (1972) standard as the minimum subsistence norm, other basic necessities of life are also included in the analysis.

Based on the average daily caloric requirement for survival and lowest average actual daily consumption expenditure on basic necessities, the total per capita daily requirement for a minimum subsistence level of expenditure within the study area is just over NRs.4.3. This was determined as follows:

1. The per capita daily caloric requirement for survival has been estimated as 2256 for Nepal (FAO, 1972) requiring a net consumption of 605 grams of cereals and 60 grams of pulses. Consumption of these quantities provides an average of 2042 and 214 calories, respectively.

2. The per capita daily cost of the 605 grams of cereals and 60 grams of pulses is estimated using average prices prevailing in the study area. This value is NRs.3.9 per capita daily.

3. To the NRs.3.9 per capita/day the lowest average actual daily consumption expenditure on other basic necessities of life are added: other food items (vegetables, meat, edible oil and ghee, salt, tea, tobacco, and sweetened wine) and essential nonfood items (clothing, footwear, education, health care, and oil) found in the sample panchayats. The lowest actual average per capita daily expenditure on these items is found to be NRs.0.5. This gives NRs.4.3 as the per capita daily minimum subsistence expenditure.

Thus, a per capita daily income of NRs.4.3 (or NRs.130.5 monthly) is the "poverty line." Families falling below this standard are regarded as below-poverty line poor.

A comparative look at the study findings and the National Planning Commission's estimates (NPC, 1978) shows that our estimate (NRs.4.3) is twice than that of the Commission--NRs.2.0. The discrepancy between the two values exists for two basic reasons. First, the time span between the NPC estimates and our estimate is almost seven years. In these years, inflation must have increased the NPC estimates. Second, the NPC estimates are very conservative--an individual cannot live on two rupees a day.

 Table 1. Minimum Subsistence Level of Daily Expenditure Per Capita

	Average daily values of 2256 calories (60 grams of cereals and 60 grams of pulses) (NRs.)	Lowest average actual daily consumption expenditure on other food items, education, clothing and footwear (NRs.)	Total daily requirement for subsistence level of expenditure (NRs.)
Nepal (rural)	1.3	0.7	2.0
Eastern region (rural)	1.2	0.6	1.9
Panchthar	3.9	0.5	4.3

Source: NPC, 1978; field survey.

The Extent of Poverty

To measure poverty within the study area, the following questions were asked:

1. What percentage of households fall below the poverty line?
2. How poor are the poor? This is shown by computing Sen's Poverty Index (World Bank, 1978) which is based on the ordinal welfare concept. The Poverty Index (P*) is defined by

$$P^* = (X/C_p)C^*_p - C_p(1-G_p)$$

Where,

- X = percentage of population below poverty line
- C*_p = poverty line
- C_p = mean income of the poor
- G_p = Gini Coefficient of the poor.

3. How do poor people maintain their families? Considering NRs.4.3 for the daily per capita and NRs.130.5 for the monthly per capita income as the absolute poverty line, out of 89 sample households, 56 households (63 percent) fall below the poverty line. This figure is higher than the national average estimated by the NPC (1978) of 36.2 percent of the population (Table 2).

Our estimates seem more reasonable and conform with Ghani and Rahman (as quoted in Seddon, 1984) who suggest that

The bulk of the rural population--60 to 80 percent would be classified as absolute poor . . . more than 42 percent of the rural households live in poverty, which is based on a minimum subsistence requirement of NRs.2 per person per day. This would appear to be a highly conservative estimate; more realistic estimates of absolute poverty would undoubtedly place at least 60 percent of the rural population in the impoverished category.

 Table 2. Sample Households and Local Population Falling Below Poverty Line

	Total household	Household below poverty line	House- Percent holds	Total population	Population below poverty line	Populat- Percent ion
Nepal						
(rural)	2,136,168	860,769	40.0	12,445,368	4,505,835	36.0
Eastern region						
(rural)	536,918	261,215	49.0	2,952,894	1,125,259	38.0
Panchthar (sample)	89	56	63.0	519	333	64.0

Source: NPC, 1978; field survey.

The magnitude of poverty is more alarming when the total poor are considered. Out of the total study area population, as many as 90 percent are poor, of which 25 percent are relatively poor (Table 3).

 Table 3. Absolute and Relative Poor in Study Area

	Sample households	Percent	Local population	Percent
Absolute poor	56	63.0	333	64.0
Relative poor	23	26.0	132	25.0
Total poor	79	89.0	465	90.0

Source: NPC, 1978; field survey.

The gravity of the problem is self-explanatory--64 percent of the population live in absolute poverty. The problem becomes more acute when disparity exists between income and distribution of assets among the below-poverty line poor.

Although the income inequalities among the poor are not found to be serious (Gini Coefficient is 0.00412), the Poverty Index (.29) between percentage of population and percentage of income shows how intense the situation is. When 29 percent of the income of the more wealthy is transferred to the poor, the income level of the poor will reach the poverty line level of income.

The magnitude and intensity of poverty in rural areas is more stark when one observes how the rural family maintains itself. During the field survey it was clear that the majority of households live in abject poverty, yet somehow maintain their families. Their farm products sustain them for about six months, and for the remaining six months they either eat less or incur debt by mortgaging whatever assets they have. Some families also consume wild fruit.

Nature of the Poverty Problem

The nature of the poverty problem is determined by the socio-economic structure of the village, where the majority of the poor live in abject poverty and are dominated, intimidated, and exploited by well-to-do farmers, farmers, and moneylenders. The poverty problem originates in agricultural productivity levels in the rural sector and have considerable implications for interclass and interpersonal relations.

The rural poor in Nepal can be classified into two categories: marginal farmers and small farmers. Marginal farmers are defined as those with inadequate land to make an acceptable standard of living from farming, either because of a small landholding or poor resource base. Small farmers are at a subsistence level of income with some of them earning considerable income from the sale of marketable surpluses. The use of either labor or capital intensive technology is as important in determining income distribution as the distribution of land.

The relationship of the resource base with income is important because the more privileged middle-level peasants in the study area cultivate farms which are not significantly larger than those cultivated by subsistence or marginal farmers.

A field survey reveals that 71 percent of the households have less than one hectare of land. Population distribution between the landholding groups is nearly proportional. Among the poor, those with less than one ha have a higher per capita monthly income. This may be due to more efficient use of their land, through higher productivity and nonagricultural employment. The size and distribution of landholdings owned and operated by farmers and the disparity in wealth does not vary much among the absolute poor despite variations in income (Table 4).

Table 4. Distribution of Households by Landholding Size

Size of landholding (ha)	Number of households			
	Dry land	Percent	Wet land	Percent
0 - 0.5	36	64.0	48	86.0
0.5 - 1.0	13	23.0	6	11.0
1.0 and above	7	13.0	2	4.0

Source: Field survey.

Most of the sample households grow millet and maize on their unirrigated land. Not only is the average landholding small but the yield rate is also low. Table 5 shows the yield of rate of three cereals.

Table 5. Area, Production, and Average Yield by Crop

Crop	Nepal yield (ha)	Panchthar district yield (kg./ha)	Panchthar (sample)		
			Area (ha)	Production (mt.)	Yield (kg./ha)
Paddy	1968	2086	14.70	10.56	718.36
Maize	1416	1640	22.28	12.40	556.55
Millet	925	998	6.36	8.83	1388.36

Source: DFAMS, 1985.

Compared to the national average crop yield and the Panchthar district yield in particular, the yield rate in the Limbuan region is very low except for millet. The yield rate of millet is high compared to both the national and Panchthar District averages. This is because millet is the main staple cereal grain within the study area, used for daily food and to prepare alcohol and fermented beer. The high millet yield may also be due to the climate, which is less favorable for maize and paddy. The unavailability of irrigation and the use of traditional farming practices are also responsible for the low yields of maize and paddy. These low yield rates are reflected in low incomes (Table 6).

Table 6. Distribution of Below Poverty Line Households by Cereal Yield

Average yield of cereal grain (kg)	Percentage of sample households	Monthly mean per capita income (NRs.)	Percentage of local popula- tion
Below 800	41.0	85	42.0
801 - 1200	23.0	87	21.0
1201 and above	36.0	77	37.0

Source: Field survey

If the monthly income of the poor is analyzed, it is clear they work long hours, and because they are less productive and own few assets, their returns are low. It can be argued that increasing the productivity of the poor, particularly farmers having yields of 800-1200 kg. per ha is effective. As stated by the World Bank (1983): "Evidences show that they are efficient users of land and capital, responsive to changes in incentives and willing to adopt new techniques when the benefits are clear." Household income is used to measure income in this study. Household income refers to the household resources which consists of land, labor, and capital. To determine household income, gross income from crops, gross income from livestock, income from wages, and income from any other sources are summed. To obtain the per capita income, gross household income is divided by household size.

Table 7 shows that 70 percent of the sample households and 71 percent of the poor population in the study area have less than NRs.100 per capita monthly income. Only two percent of the study area population have a monthly per capita income near the subsistence level.

Table 7. Distribution of Below-Poverty Line Households and Population

Per capita monthly income (NRs.)	Percentage of sample households	Percentage of local population
Under 50	16.0	20.0
50 - 75	16.0	16.0
75 - 100	38.0	35.0
100 - 125	27.0	26.0
125 - 130	4.0	2.0

Source: Field survey.

In Nepal it is not possible to determine the exact calories per individual for different geographic regions because no general survey has yet been conducted. Different surveys conducted in different years give different values of individual daily caloric requirements and food availability. The caloric intake directly depends on the food habits that vary between regions and even between villages.

Regarding the food habits in the study area, the calories from cereal grains, black gram, soyabean, milk, vegetables, edible oil and ghee, fruits, meat (buffalo, goat, and pig), and fermented beer were computed. The caloric values for each item are from the Food Policy and Nutrition Division of the Food and Agriculture Organization (FAO, 1972). The average daily per capita caloric intakes for the study area, neighboring districts Dhankuta, and Solukhumbu are 2182, 1780, and 1663 (DFAMS, 1985).

The problem of poverty has deep social dimensions. Education, family size, basic health care, and fertility are all factors that help understand the roots of rural poverty (World Bank, 1980). Out of the 56 households surveyed, only 23 were literate. The households with a literate member also had a relatively higher mean per capita income. While education may reduce poverty, it is clear that poverty depresses literacy, as shown in Table 8.

Table 8. Literacy and the Poor

Households	Percent of sample households	Mean per capita income (NRs.)	Percent of local population
Literate	41.1	111.6	44.4
Illiterate	59.0	84.8	56.6

Source: Field survey.

Only 41 percent of the sample households are literate, and these households also have a smaller family size. The average family size in the study area is six. Poor large families have a low mean per capita income, as shown in Table 9.

Table 9. Family Size and Poverty

Family size	Percent of sample households	Mean per capita monthly income (NRs.)	Percent of local population
1 - 6 members	46.4	89.6	29.7
6 or more members	53.6	76.0	70.3

Source: Field survey.

From Table 9 it can be inferred that low income results in high fertility, causing a larger family size. Larger family size then leads to a lower per capita mean income, increasing the incidence of poverty.

The study area is characterized by massive rural indebtedness. Of the total poor households, almost 80 percent have borrowed money. Out of the total borrowers, only two percent of the households borrowed from financial institutions, and the rest from the private moneylenders.

Of the 56 poor households, the ethnic distribution is: Limbu (38), Brahmin-Chhetri (six), Tamang (five), with the remaining from other groups. The poor Limbu households have a relatively higher per capita monthly mean income compared to other castes. This is because their economic activities are more diverse compared to the other groups. The Limbu engage in nonagricultural activities which substantially raises their income (Table 10).

Table 10. Household and Monthly Income by Ethnic Group

Ethnic group	Number of sample households	Mean per capita monthly income (NRs.)	Percent of local population
Limbus	38	85.7	68.5
Others	18	75.2	31.5

Source: Field survey.

Those individuals who borrowed money used it to purchase foodgrains they normally sell at harvest time to meet their immediate cash needs such as post-loan repayment along with household necessities. After three or four months, they again borrow to purchase foodgrains, establishing a circular chain of dependency. Sometimes they are compelled to transfer their assets to moneylenders which results in decline in their resource base pushing them into an even more precarious situation.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The socioeconomic structure of villages varies from region to region and between villages in a region. There is, however, a basic pattern within the study area: small scale farmers who produce for their own subsistence, work on their land for between three and six months of the year, seeking employment as laborers for the rest of the year. The small farmers dominate the village community with their wealth. They frequently act both as traders and as moneylenders. The subsistence farmers are often unable even to meet the needs of their families, because of drought or other crop failures, or their crops are seized without payment to cover their debts. In this situation, nothing effective will be achieved until the poor organize a countervailing force to change this pattern of exploitation and poverty. The victims of such a socioeconomic structure are the weakest section of the community, as they are illiterate, uneducated and ill-fed.

In spite of various development efforts, the symptoms of poverty have intensified in the study area. This is the result of agricultural policies which are not benefitting the subsistence-level farmers. These policies have been contributing to rural impoverishment in pursuit of national economic growth. Taking the expenditure on food and other nonfood items as minimum subsistence level of income/expenditure, the poverty line for the study area is NRs.131 per capita per month at 1984-85 prices. The estimated break-even or "wolf point" for the study area is NRs.216 per capita per month. The proportion of sample households falling below the absolute poverty line is 63 percent, while the proportion of the local population falling below the absolute poverty line is 64 percent. In terms of the wolf point, the proportion of sample households below this level of income is 89 percent. The mean per capita monthly income of all households in NRs.123 and of the absolute poor households is NRs.82. The marginal propensity to consume is estimated to be 0.83 in the study area.

Small farmers are more efficient users of land and willing to adapt new techniques when the benefits are clear. Literate households have relatively higher per capita monthly incomes.

Almost all poor households use traditional farming practices. If modern farming methods are used, agricultural productivity and the condition of the poor will improve.

The food habits of poor families are dominated by cultural practices. Fermented beer and wine are consumed in relatively greater amounts. The cultural practices are such that households even use cereals to make wine and fermented beer.

Among the poor, smaller families have a higher mean per capita income than larger families do. Poor households suffer from indebtedness. The socioeconomic and power structure of rural society is such that poor families are in the grip of local moneylenders.

The heart of the problem is that poverty is a primary condition for 64 percent of the population within the study area.

The crucial task at present, is to make appropriate development efforts to reach the poorest sectors of rural society. If disintegration of rural life continues, there is no way out regardless of how much money is spent. The objective of development must be viewed as a selective attack on poverty, helping the poor help themselves.

Poverty and malnutrition are the norm for a large proportion of rural society. If the Nepalese socioeconomic structure were better adapted to the absorption of labor, the living standards would slowly improve. Had employment oriented strategies prevailed earlier or the strategies which were adopted pursued with greater efficiency, much of the poverty existing today might have been reduced, if not eliminated.

Recommendations

1. Literate households have a relatively higher per capita monthly income. Education can reduce, if not alleviate the extent of poverty. Formal school education, and informal adult education should be promoted. Furthermore, education seems to encourage people to have smaller families, which helps increase per capita income.

2. As the size of landholding is very small, crop rotation and a mixed cropping pattern should be introduced to increase the per capita availability of cereal grains. Irrigation, fertilizer, credit, and improved seeds should be provided to encourage double cropping. There is a great need for more formal or nonformal grassroots organizations, to look after poor farmer's interests.

3. The food habits of poor households are such that they consume too much fermented beer and wine. If this practice can be changed, cereal consumption can be increased (which they currently use to make alcohol). Furthermore, information about nutrition should be made available to poor households.

4. The structure of society is such that rural poor are socially and economically deprived. A structural interrelationship between asset holding (resource base) and the existing socioeconomic system should be established. This will give better understanding of the social relations of production and develop programs which directly benefit the poor.

5. Rural poor do not have confidence in the government's development programs and feel they only benefit the elite. The rural poor should be treated as the active subjects of development who make choices, rather than as passive beneficiaries.

6. There must be a firm political commitment to comprehensive rural development policies which favor the disadvantaged sections of society; promote the decentralization of decisionmaking; encourage participation by the people in the formulation and implementation of development plans; mobilize local human and material resources; strengthen traditional grassroots institutions and help create new ones.

REFERENCES

- Ali. "Running on the Spot." Far Eastern Economic Review, March 24. (1983).
- Bronfenbrenner, M. Income Distribution Theory. Chicago, Ill., U.S.A.: Aldine Publishing Company. 1976.
- Department of Food and Marketing Services (DFAMS). Agricultural Statistics of Nepal, 1983. Kathmandu, Nepal: DFAMS. 1983.
- . Agricultural Statistics of Nepal, 1985. Kathmandu, Nepal: DFAMS. 1985.
- . Food Consumption Survey Report. Kathmandu, Nepal: DFAMS. 1985. (In Nepali).
- Food Policy and Nutrition Division, Food and Agriculture Organization (FAO). Food Consumption Table for Use in East Asia. Rome: FAO. 1972.
- National Planning Commission (NPC). A Survey of Employment, Income Distribution and Consumption Pattern in Nepal. Vol. IV. Kathmandu, Nepal: NPC. 1978.
- Seddon, D. Nepal--A State of Poverty--The Political Economy of Population Growth and Social Deprivation. Monographs in Development Studies No. 11. University of East Anglia: School of Development Studies. 1984.
- World Bank. India. Occasional Papers, World Bank Staff Working Paper No. 279. Washington, D. C.: World Bank. 1978.
- . World Development Report. Washington, D. C.: World Bank. 1980.
- . Focus on Poverty: A Report by a Task Force of the World Bank. Washington D. C.: World Bank. 1983.

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