

DYNAMICS OF RELATIVE POVERTY IN RURAL AREAS: AN EVIDENCE FROM NANGARHAR PROVINCE, AFGHANISTAN

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Afghanistan ranks as one of the poorest countries in the world. A grim average of 53 percent of rural population entrapped in poverty confronts even more severe deprivations. The extent and severity of poverty vary from one part of the country to the other. In general the Northwest and Central regions are poorer than the Southwest of the country. Most of the Afghan population does not have access to basic necessities of life such as food, education, health and shelter. The major objective of the study is to measure the extent and incidence of relative poverty among the farming and non-farming community by using income and expenditure approaches. The primary data based study was executed in two districts of the province, Nangarhar, Afghanistan taking two villages from each district. The selection was made on purposive grounds. Data was collected by using a pre-tested questionnaire and the data so collected was analyzed by employing Foster, Greer and Thorbeck (FGT) class of poverty measures.

Keywords: Relative poverty, income/expenditure approach, farming/non-farming community

INTRODUCTION

Afghanistan is primarily an agricultural country. About 85 percent of the total population is dependent on agriculture with a population distribution of 78 percent rural and 22 percent urban (www.cesr.org, 2001). For the past two and a half decades the Afghanies have been wedged in a complex web of civil, regional, global and ideological wars. Due to conflict and political instability, consistent data is not available from 1980 onwards, but there are private observations sufficient to believe the fact that poverty has worsened over the past two decades. The severity of poverty is mainly a rural phenomenon in the country. With most of Afghanistan's resources being channeled towards internal and external wars, the issue of alleviating poverty remained secondary in the national agenda (World Bank, 2004). Further, long periods of drought in the 1990s worsened food insecurity and poverty. Recent surveys conducted by private agencies systematically cover a grim picture of poverty. With the majority of its population living below the poverty line, and 48 percent of its population malnourished, Afghanistan ranks as one of the poorest countries in the world. Sierre Leone is the only country that ranks below Afghanistan in the Human Development Index (Oduru, 2002). It is not only the issue of significant number of households living below the poverty line, rather the fear and threat of poverty in rural areas is also the observable evidence. The

National Rural Vulnerability Assessment established a consumption poverty line for rural areas. A bleak average of 53 percent of rural population in poverty disguises even more severe deprivations (Government of Afghanistan, 2004).

There is no denying the fact that no society can surely be flourishing and happy, of which by far the greater part of the numbers are poor and miserable. (Akhtar, 2000). Poverty can be referred to as the inability to have access to the basic necessities of life such as food, cloth, house etc. Poverty line is the official threshold of income that is necessary to be able to buy the basic necessities one needs such as food and clothes and to pay for somewhere to live. It may be a threshold to meet the requisite calories a person needs in a day. Most of the world's poor people earn their living from agriculture, so if we know the economics of agriculture we would know much of the economics of being poor (Pakistan Human Condition Report, 2002).

From agriculture point of view Nangarhar province is considered as one of the most highly productive eastern province of Afghanistan. With a total population of 782,000 and total area 7,616 sq km Jalalabad is the capital of Nangarhar Province with a current estimated population of about 360,000 residents. A dam on the Kabul River and a hydroelectric power station at Darunta, north of Jalalabad, have made possible the irrigation of additional land, providing the city with electricity for the major portion of the day (Food Security Bulletin 2004).

Farming activities mainly includes production of rice, wheat, maize as well as large quantities of oranges, olives and alfalfa. Okra, corn, tomatoe, potato and apricots are also grown here and the area is famous for its orchards and gardens. Virtually all the citrus fruit grown in Afghanistan is clustered here (Schütte, 2004). The rural population of the province is mainly composed of marginal and subsistence land holdings. As low land holding leads to low productivity, so one can find low level of living and high rate of poverty. Therefore, most of the rural people of Nangarhar province are poor (World Bank, 2005). This province is the best symbol of the country with regard to the welfare of the people. There is a dire need to think about the emerging dimensions of vulnerability phenomenon in rural segments along with the factors affecting rural poverty in this province so as to draw a good strategy for the economic renovation of Afghanistan. In this context, the study was designed to estimate the extent, depth, and severity of rural poverty among the population of the selected universe both for the pre-Taliban and post-Taliban eras. Income and expenditure approaches were designed to measure the dynamic trends of poverty between these two periods. The endeavor of this primary databased study may contain some guidelines for the policy makers in the newly elected government of Afghanistan.

MATERIALS AND METHODS

The study area for the research is rural area of the province Nangarhar, Afghanistan. The Universe, Nangarhar province, for its high population and agriculture characteristics could be chosen as a good representative model for determining poverty in Afghanistan. Two districts Behsood and Sorkh road and two villages from each district (Behsood Khas, Ashiq Mohammad Valayatee and Sawati, Qalay Maroof) were purposively selected. From each village 30 respondents were selected to collect data information. The total sample size was around 120 respondents. The main objective behind these purposive selections was to obtain the sample at varying distances from the city. The sample obtained encircles all the resident classes of the households of the village for example marginal farmer, landless households, tenants and sharecroppers. Care was also made to select the respondents both engaged in farming as well as in non-farming activities. Being primary data based study, data on different variables affecting the livelihood of rural households was collected from the respondents of selected villages. A well-planned, pre-tested interviewing schedule was prepared for the collection of necessary

data through personal interviews. Foster, Greer and Thorbeck (FGT) (1984) class of poverty measures was operated in the primary data keeping in view the trend of rise and fall in poverty after the demise of Taliban. FGT index introduces the class of poverty measures, P_i which not only measures the severity of poverty but head count measure and poverty gap index as well.

Head Count Ratio

Head Count Index Shows the percentage of population below poverty line and this poverty line is established by costing a minimum basket of goods necessary for basic human survival. It is measured by formula given below, FGT (1984).

$$P_0 = \frac{1}{n} \sum_{i=1}^q [(Z - Y_i)/Z]^0$$

Where

Z	=	Poverty line
Y_i	=	Income of the i^{th} household
0	=	Power of the function
P_0	=	Head-count Index

Poverty Gap

Poverty gap gives the depth of poverty. It shows how far or near the poor are from the poverty line in terms of income or expenditure. It can be measured by formula given below.

$$P_1 = \frac{1}{n} \sum_{i=1}^q [(Z - Y_i)/Z]^1$$

Where

Z	=	Poverty line
Y_i	=	Income of the i^{th} household
1	=	Power of the function
P_1	=	Poverty Gap

Squared Poverty Gap

It indicates the severity of poverty among poor. It measures inequality amongst the poor. It is measured by formula as under.

$$P_2 = \frac{1}{n} \sum_{i=1}^q [(Z - Y_i)/Z]^2$$

Z	=	Poverty line
Y_i	=	Income of the i^{th} household
2	=	Power of the function
P_2	=	Squared Poverty Gap

Overtime dynamic trends in relative poverty in the sample population was quantified by estimating the whole class of poverty in terms of current year poverty (Pre-Taliban period) and base year poverty lines (Post-Taliban period). As the poverty line for the base year was not existent in Afghanistan, so it was calculated by

adjusting through inflation rate and current year poverty line. In this way, dynamic trends of poverty over time were measured by using current year poverty line for current year and base year poverty line for the base year.

RESULTS AND DISCUSSION

FGT Class of relative poverty measures: income approach

Relative poverty is the condition of having fewer resources or less income than others within a society or it may be compared to worldwide averages. In this research endeavor, for the calculation of relative poverty based on income approach, the income of base year (2000) for every respondent was adjusted at 10 percent.

Dynamics of Relative Poverty: Overall Rural Community

By using income approach from Table 1, HCI or the percentage of people below poverty line was 68.3 during the base year. And at current year it was 64.1 a decrease of 4.2 percent has been observed by comparing the two HCIs. This measure of poverty does not consider the distribution among the poor.

Table 1. Dynamics of relative poverty: Overall rural community

Poverty Indices	Base year 2000-01 (%age)	Current year 2005-06 (%age)	Dynamic trends (%age)
HCI	68.3	64.1	4.2
PGI	24.7	22.7	2.0
SPGI	12.1	11.1	1.0

So, Poverty Gap Index (PGI) and Squared Poverty Gap Index (SPGI) were also calculated in order to determine the depth and severity of poverty among poor. PGI, which shows the depth of poverty, was 24.7 percent during base year and in current year it has fallen to 22.7 percent with a change of 2.0 percent. The magnitude of SPGI which shows the severity or inequality among the poor, was found to be 12.1 percent during base year and at present 11.1 percent with a change of 1.0 percent.

Dynamics of Relative Poverty: Farming Community

Table 2 depicted that in the farming community of Nangarhar province head count index (HCI) obtained was 59.7 percent in the current year while in the base year it was 66.2 percent. The dynamic trends observed so indicate that a decrease of 6.5 percent has been

occurred in HCI of overall farming community of the province. Similarly the PGI in the current year obtained was 18.3 percent while in the base year, it was 20.1 percent, thereby a difference of 1.8 percent was observed by considering the dynamic trends. The SPGI for the given community was 8.4 percent in the current year and 9.1 percent in the base year. In this way, a decrease of 0.7 percent was shown.

Table 2. Dynamics of relative poverty: farming community

Poverty Indices	Base year 2000-01 (%age)	Current year 2004-05 (%age)	Dynamic trends (%age)
HCI	66.2	59.7	6.5
PGI	20.1	18.3	1.8
SPGI	9.1	8.4	0.7

Dynamics of relative poverty: Non-farming community

Head Count Index or incidence of poverty in the study area with income approach for the non farming community was 69.7 percent in the current year while in the base year it was 74.4 percent, the dynamic trends so obtained shows a decrease of 4.7 percent. Similarly the PGI in the current year obtained was 29.5 percent while in the base year it was 34.3 percent, a difference of 4.8 percent have been observed by looking into the dynamic trends. The SPGI for the non-farming community is 15.5 percent in the current year and 18.3 percent in the base year thereby a decrease of 2.8 percent is shown.

Table 3. Dynamics of relative poverty: Non-farming community

Poverty Indices	Base year 2000-01 (%age)	Current year 2004-05 (%age)	Dynamic trends (%age)
HCI	74.4	69.7	4.7
PGI	34.3	29.5	4.8
SPGI	18.3	15.5	2.8

FGT Class of relative poverty measures: Expenditure approach

Expenditure approach was generally considered a preferred approach by researchers to measure the household welfare, partly because of non-sampling errors due to bias in income under-reporting. While measuring relative poverty through expenditure approach the expenditures of each respondent was adjusted by 10 percent during current year and base year.

Dynamics of Relative Poverty: Non-Farming Community

Table-6 indicates that head count index or incidence of poverty in the study area with expenditure approach for the non farming community was 65.1 percent in the current year while in the base year it was 72.0 percent. The dynamic trends so obtained shows a decrease of 6.9 percent in the said community of the province. Similarly the poverty gap index (PGI) in the current year was 23.9 percent while in the base year it was 26.8 percent a difference of 2.9 percent have been observed by looking into the dynamic trends. This is a good change from welfare point of view of poor community. The squared poverty gap index (SPGI), for the non-farming community was 11.2 percent in the current year and 13.1 percent in the base year a decrease of 1.9 percent is shown. This indicates that in current year the rural poor are better off.

Table 6. Dynamics of relative poverty: Non-farming community

Poverty Indices	Base year 2000-01	Current year 2004-05	Dynamic trends (%age)
HCI	72.0	65.1	6.9
PGI	26.8	23.9	2.9
SPGI	13.1	11.2	1.9

CONCLUSION

It is concluded on part of Afghanistan that during last five years the economical situation of the people has been improved. And there was a considerable decrease in relative poverty during the current year as compared to the base year. This decrease is mainly attributed to the improved peace condition and to the injection of foreign aid through the government as well as through non-governmental organizations.

The analysis shows that there was an occurrence of increased poverty in non-farming community as compared to farming community. This was mainly due to the reason that at base year as well as in current year the people working as government employee faced threat of poverty because of inconsistency and instability in financial policy of government for the payment of salaries. The other great factor on this part may be due to the changing governments of Afghanistan by force and the continuity of war and bad security conditions. And also the paid salaries were not enough to make them face the basic necessity of life. While on part of farming community the situation of peace and stability was comparatively good and satisfactory which led them to work on land for the matter of survival.

Dynamics of relative poverty: Overall rural community

By employing expenditure approach from table 4 Head Count Index (HCI) or the percentage of people below poverty line was 63.3 during the base year. And at current year it was 57.7, a decrease of 5.8 percent has been observed by comparing the two HCI. This decrease in poverty level is mainly due to improved peace condition, foreign aid and break of the year's long drought condition.

Table 4. Dynamics of relative poverty: Overall rural community

Poverty Indices	Base year 2000-01	Current year 2004-05	Dynamic trends (%age)
HCI	63.3	57.5	5.8
PGI	18.9	18.7	0.2
SPGI	8.3	7.9	0.4

The magnitude of the poverty gap index, which shows the depth of poverty, was 18.7 percent and in current year and 18.9 percent in the base year a change of 0.2 percent has been observed. The magnitude of squared poverty gap was found, which shows the severity or inequality among the poor, during base year 7.9 percent and at current year 8.3 percent in the base year with a change of 2.4 percent.

Dynamics of relative poverty: Farming community

Table 5 depicted that in the farming community of Nangarhar province head count index (HCI) obtained was 53.4 percent in the current year which shows that the percentage of poor were 53.4 while in the base year it was 58.4 percent. The dynamic trend observed so, indicates that a decrease of 5.0 percent has been occurred in head count index of overall farming community of the province. Similarly the poverty gap index (PGI) in the current year obtained was 15.8 percent while in the base year it was 14.6 percent, a difference of -1.2 percent have been observed by considering the dynamic trends which shows that poverty gap has increased by 1.2 percent. The squared poverty gap index (SPGI) for the given community was 6.0 percent in the current year and 5.7 percent in the base year, an increase of -0.3 percent is shown in table 2.2.

Table 5. Dynamics of relative poverty: Farming community

Poverty Indices	Base year 2000-01	Current year 2004-05	Dynamic trends (%age)
HCI	58.4	53.4	5.0
PGI	14.6	15.8	-1.2
SPGI	5.7	6.0	-0.3

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