

RURAL POVERTY IN PAKISTAN **Some Related Concepts, Issues** **and Empirical Analysis**

IMRAN SHARIF CHAUDHRY, SHAHNAWAZ MALIK
and MUHAMMAD ASHRAF*

Abstract. This paper investigates some related concepts and issue of rural poverty by looking at agriculture and rural economy, rural poor and features of rural areas, and spatial dimensions and trends of rural poverty. The significant contribution of this paper is to explain the macro determinants of rural poverty in Pakistan. The fact that Pakistan is basically an agricultural country can hardly be denied. Rural areas are the major reservoir of poverty in Pakistan and agriculture is the main activity on which most of rural people depend for their livelihood. Rural poverty levels are significantly higher than urban levels in Pakistan. An empirical analysis of the macro determinants of rural poverty is based on the data for the year 1963 to 1999. The results suggest that inflation, unemployment and growth rates have the significant effects to alleviate rural poverty in Pakistan. Elimination of rural poverty is impracticable unless the economy generates opportunities for investment, entrepreneurship, job creation and sustainable livelihood.

I. INTRODUCTION

An overwhelming majority of the population in developing countries lives in rural areas. According to Todaro (2000), on average, about 80 percent to 90 percent in Asia and Africa, of all target poverty groups are located in the rural areas. So poverty is mainly rural but with large regional disparities. Rural poverty is more prevalent, deeper, a more severe than urban poverty. It

*The authors are Assistant Professor and Chairman at Department of Economics, Bahauddin Zakariya University, Multan (Pakistan), and Professor at Department of Economics, Allama Iqbal Open University, Islamabad (Pakistan), respectively.

is disproportionately high among households engaged in agriculture, informal business, and casual labour or livestock owners. In Pakistan, rural areas have higher poverty and worse human development indicators than urban areas and among regions, rural South Punjab and Balochistan poor relative to other provinces (IFAD, 2001, p. 49).

As emphasized by Schultz (1964), the traditional agricultural of less developing countries (LDC) was in need of transformation as the existing technology offered very little growth opportunities due to low returns. The required transformation in Pakistan was made possible in the form of scientific and technological based inputs like high yielding varieties (HYV) of seed, fertilizers, pesticides and water accompanied by a greater spread of agriculture mechanization like tube-wells and tractors. The result was that the growth rate in agriculture sector jumped from 1.8 percent per annum in the fifties to over 5 percent per annum in the 1960s. This state of affairs was termed as the so-called 'green revolution' (Malik, 1992, p. 22).

According to most reliable estimates, the percentage of rural population in poverty increased from 41 percent in 1963-64 to 55 percent in 1969-70 (Amjad and Irfan, 1984, p. 30). The decade of the 1970s has witnessed, according to Amjad and Irfan (1984), a steady decline in the percentage of rural poverty from the level attained in 1963-64. This implies that keeping in view a high rate of growth of population – *e.g.*, 3 percent per annum – the absolute numbers in poverty have considerably increased. Given that the rate of agricultural growth during the 1970s was not higher than that of population growth, how can then above decline in percentage rural poverty be explained? On this, the opinion is almost unanimous. It is believed that the increase in overseas migration (largely to Middle Eastern countries) that took place in the 1970s had an important impact especially, on the rural sector. According to a survey about 63 percent of migrant workers came from the rural areas (Gilani *et al.*, 1981). It is also believed that the increasing inflow of remittances had an appreciable impact on the rural wages as well.

In the 1980s, there was a strong revival of economic growth as GDP increased by more than six percent per annum. This was done by rehabilitating the private sector, gradual dismantling of state controls, including denationalization, deregulation of industrial activity, introduction of economic and welfare measures to Islamize the economy, and achieving a rapid increase in remittance flow into the economy (Amjad and Kemal, 1997).

It is unfortunate that there has been a significant increase in poverty in the 1990s in Pakistan on account of sluggish growth, destabilizing macro-economic imbalances, absence of social safety nets, decline in the flow of remittances from overseas Pakistani workers, shedding of surplus labour by state owned enterprises and deterioration in the quality of governance. More over, there is ample evidence that poverty, which declined rapidly in Pakistan in the 1970s and 1980s, has returned in the 1990s (Amjad and Kemal, 1997; Ali and Tahir, 1999; Jafri, 1999; Arif *et al.*, 2000).

The main aim of this study is to review the performance of agricultural sector in the Pakistan's economy and situation of rural poverty. This study also highlights the spatial dimensions of rural areas and rural poverty in Pakistan. The most important section of this study is to estimate the determinants of rural poverty in Pakistan.

The plan of the study is as follows. After this introductory section, some related concepts and issues of rural poverty are discussed in section II. Agriculture and rural economy of Pakistan are analyzed in section III. Section IV describes the trends of rural poverty in Pakistan. The determinants of rural poverty in Pakistan are empirically investigated in section V. Section VI presents the conclusions and policy implications.

II. SOME RELATED CONCEPTS AND ISSUES OF RURAL POVERTY

Generally, it is believed that majority of the population of developing countries live in the rural areas and they have less to the socio-economic and infrastructural facilities than their urban counterparts. Poverty is more severe in the rural areas and it is empirically stated that rural households are mostly affected by poverty (World Bank, 1990).

The importance of rural poverty is not always understood, partly because the urban poor are more visible and more vocal than their rural counterparts. It is also empirically observed that in many countries rural poverty is a critical factor in the overall incidence and depth of poverty.¹

The extent of poverty can vary greatly among rural areas within the same country. In Pakistan, for example, the worst poverty occurs predominantly in arid and desert zones or in steep hill-slope areas that are

¹For details see *World Development Report*, 1990, On Poverty, p. 31.

ecologically vulnerable. Such areas are often isolated in every sense. Opportunities for non-farm employment are few, and the demand for labour tends to be highly seasonal. Others among the poor live in regions that have a more promising endowment of natural resources but lack access to social services (education and health) and infrastructure (electricity, irrigation, information and technical assistance, transport and market centres).

UNDERSTANDING RURAL POVERTY

An understanding of the extent, nature and determinants of rural poverty is a precondition for effective public action to reduce deprivation in rural areas. The rural population also tends to be less healthy and less educated, as well as experiencing poorer service delivery and limited employment opportunities. Since a significant share of economic activity in low-income rural areas is devoted to the production of basic commodities, especially staple foods, for which the income elasticity of demand is low, a reduction of poverty requires either a shift of activities to production of other goods and services with greater income elasticities of demand, or a significant increase in productivity, or both.

About 1.2 billion people worldwide consume less than a 'standard' dollar-a-day; they are in dollar poverty, where 44 percent are in South Asia, about 24 percent each in sub-Saharan Africa and East Asia, and 6.5 percent in Latin America and the Caribbean (World Bank, 2000). About 75 percent of the dollar poor work and live in rural areas; projections suggest that over 60 percent will continue to do so in 2025 (Ravallion, 2000). Rural Poverty Report (2001, p. 15) rightly remarks:

Most of the poor are rural and will be so for several decades. Their income, spending and employment usually concentrate on staple food. They have little land, schooling or other assets, and face many interlocking barriers to progress the share of international aid and attention devoted to agriculture, rural development and the rural poor has been small and falling Rural poverty reduction deserves much greater emphasis.

RURAL POOR AND FEATURES OF RURAL AREAS

Rural poverty is heterogeneous: the rural poor are widely dispersed, possess a variety of income sources and may be ethnically diverse. Constructing an overview of rural poverty allows target groups to be identified as a preliminary step to formulating coherent poverty reduction policies. The most important source of diversity among the rural poor, and between the

poor and non-poor, is found in their sources of income and patterns of expenditure. The rural poor commonly possess multiple sources of income from agriculture, rural non-farm employment and transfer (private and public). By focusing on the main income source of poor rural households, it is possible to construct a simple typology of rural poverty groups. This typology is illustrative. Many factors affect rural poverty: political stability, the quality of governance, and macroeconomic and sectoral policies (Alderman *et al.*, 2001).

The ILO Report (2003, p. 27) on 'working out of poverty' rightly remarks on rural poverty as,

A better understanding of the social and economic dynamics of rural communities is critical to the reduction and eradication of poverty. The world's poorest countries are those most dependent on agriculture. Three-quarters of the people in extreme poverty live in rural areas, usually those remote from the main centers of economic activity or with the least productive land The starting point for such an analysis is an understanding of the seasonal nature of farming and the high risk of crop failures, which cause large fluctuations in the generally low incomes of rural populations, particularly in areas with unreliable rainfall and poor soils. Agriculture is the core industry in most rural areas, employing between half and two-thirds of the work force in the world's poorest countries and generating between a quarter and a third of national output in many developing countries.

Rural areas have several specific features that underlay the particular problems of addressing rural poverty are summarized below:

- (i) Rural areas are characterized by relatively low population densities, with maximum population thresholds per settlement. However, some small towns have more economic links in common with the surrounding rural hinterland than with the capital city, or urban-industrial locations.
- (ii) Low rural population density is associated with low levels of basic infrastructure and service provision, inhibiting economic development. The delivery of services and public goods to rural areas presents unique challenges for cost effectiveness and cost recovery.
- (iii) Poor access to public goods and basic services as well as prolonged government interventionism has led to weak rural factor and product markets. High transaction costs and shallow rural markets

- make it difficult for rural households to accumulate assets and to manage income volatility.
- (iv) The rural economy is broader than agriculture. Poverty reduction strategies should assess how to increase non-farm as well as agricultural income. In many areas, rural household income derives increasingly from non-farm employment.
 - (v) The heavy reliance on natural-based (especially climatically dependent) production in rural areas leads to seasonal and annual variations in household income, and has also placed environmental issues at the forefront of rural poverty strategies.
 - (vi) Many rural communities have strong traditional ties, where social capital may be very important and strongly influence economic decisions (*i.e.*, informal capital and labour sharing arrangements, informal tenure systems, migration networks, etc).

SPATIAL DIMENSIONS OF RURAL POVERTY

Since there are significant differences between rural and urban areas, both are heterogeneous and, in most countries, the incidence of poverty differs between rural regions. Rural areas close to the major cities (peri-urban areas), and other long settled agricultural regions, may be well connected to national and international markets and have adequate supporting infrastructure and a range of vigorous enterprises producing inputs and processing outputs of the agriculture sector. In such regions the incidence of poverty may be relatively low. However, other, more remote areas perhaps inhabited by minority ethnic groups and majority powerlessness and voiceless-ness groups may lack these attributes and characterized by a high incidence of poverty. Thus, a strategy for tackling rural poverty should recognize these differences and, if necessary, place differing emphases on the types of issues flagged in different regions.

Many of the rural poor who earn a living in agriculture are small-scale farmers. They typically suffer from low productivity and just produce enough to meet their subsistence, needs with an occasional marketable surplus. Many of the rural groups are engaged in livestock sector particularly in the desert and semi-desert areas, where their dependency is on the rainfall. While any program will be likely to focus on increasing the level and value of production, determining what this might entail will require strong participation of the potential beneficiaries. This is particularly important with groups such as livestock herders who are often not well catered for in agricultural development program because they may not always reside in the

same or may be of a different ethnic/linguistic groups than the majority. Livestock serve multiple functions (income, food, traction, organic fertilizer, savings and assets) and the relative values and potential outputs of these to the poor are not always apparent, and emphasis must be placed on the needs of the herders.

III. AGRICULTURE AND RURAL ECONOMY OF PAKISTAN

The fact that Pakistan is basically an agricultural country can hardly be denied. At the same time failure of agriculture to provide adequate opportunities for full employment and inability to yield income sufficient for providing a satisfactory living standard to the rural population is well established.² The agricultural sector, including its structure of production, resource utilization, and technology, has undergone significant changes, which have affected the national economy since Pakistan came into being in 1947. However, the agrarian structure and the system of land tax have changed little. Such changes could affect the structure of rural society, growth and distribution of investment in building the social and physical infrastructure for the rural areas.

The process of agricultural transformation has been distorted by the influence of the landed elite, the wrong policies of successive governments with regard to the land tenure system, agricultural taxation, price support and subsidies, excessive regulation, control of the agricultural marketing system, and processing industries.³ However, in spite of these problems, agricultural progress slowed down in the 1970s with the growth rate coming down to 2 percent per annum due to mainly the lack and neglect of support services especially agricultural extension, research and training which was needed as a follow up to green revolution. The trend of diminishing returns, however, was reversed by the end of 1970s as a result of favorable weather conditions, better distribution of inputs and perhaps, price incentives offered to the farmers, a subject which needs some explanation. Since the agricultural growth has been modest and quite uneven. The most impressive record of agricultural growth was in the 1960s, followed by the decades of the 1980s, with the same reasons. In the last decade, agriculture has grown at an average rate of 3.5 percent per annum, which is lower in against the 1980s.⁴ The

²For more details see Malik (1992), p. 21.

³For more details see Khan (1999), p. 97.

⁴Figures are taken from various issues of *Pakistan Economic Survey*.

fluctuation in agricultural growth has largely stemmed from fluctuation in major crops which, in turn, is the result of the behavior of mother nurture, pest attacks on crops, adulterated pesticides, and relatively lesser attention given to its sub-sectors other than crop farming. Last year, the agricultural growth rate was in negative (-2.6%) because of the catastrophic drought and shortage of water up to 40 percent of normal supplies.

In 1950, about 85 percent of Pakistanis lived in rural areas and over one half of GDP was contributed by the agriculture sector. Notwithstanding the fact that non-agricultural sources have become quite important contributors to the national income, agriculture remains the key sector in terms of its backward and forward linkages affecting the living standards of urban and particularly rural households. The transition referred to above has seen brought about by several factors, including

- (i) Growth of output and diversification of agriculture,
- (ii) Employment of labour in non-farm activities and migration of rural labour to urban areas,
- (iii) Growth of population, and
- (iv) Changes in the pattern of land ownership, tenurial relations and parcelization of landholdings due to the growth of population and laws of inheritance.

The issues of rural poverty and development cannot be fully appreciated without examining several interrelated aspects of changes in the agriculture sector. Rural areas are the major reservoir of poverty in Pakistan and agriculture is the main activity on which most rural people depend for their livelihood. To understand the determinants of rural poverty, it is particularly important to examine the role of agriculture in Pakistan's economy and the nature of rural economy. The transformation of Pakistan's economy and the role of agriculture are reflected in Table 1.

Though the importance of agriculture has been declining in the overall process of economic growth in the country, its contribution is still significant; it engages 48.42 percent of the country's labour force; creates about one-fourth of the GDP. It is the largest source of foreign exchange earnings and meets the raw material needs of the country's major industries; namely, textiles and sugar. A vast majority of the rural population – which is about 67 percent of the country's population – depends on agriculture for its income.

TABLE 1
Role of Agriculture in Pakistan's Economy

Year	Percentage Share of Agriculture in GDP	Percentage of Rural Labour Force	Percentage of Rural Population
1950	53	68	85
1960	45	59	78
1970	38	57	74
1980	29	52	71
1990	23	47	69
1995	22	45	65
2000	25	48	67.5
2002	24	48.42	67

Source: Khan (1999) and *Pakistan Economic Survey* (various issues).

The highly aggregate growth rates of agricultural output do not reveal important aspects of growth and distribution. For one, not all sub-sectors in agriculture have experienced sustained growth, which is amply demonstrated by serious commodity imbalances within one crop year and over time. Second, not all growth in output, even in those activities in which it has been experienced in any significant way, has come from increased efficiency or at lower cost. Third, the growth experience has been highly uneven between various regions even within one province, particularly between regions with or without irrigation. Of course, provinces with limited irrigation facilities and infrastructure have been seriously handicapped. Finally, farm groups have also been affected unequally, depending upon their access to land and other related income-earning opportunities within agriculture or outside. All of these generalizations cannot be demonstrated with precision mainly because of insufficient data, but they are supported by a substantial body of evidence from studies based on the scattered primary (farm-level) and secondary (aggregate) data (Khan, 1999, pp. 100-101).

Farm credit can be a major source of acquiring new technology for an efficient and profitable agriculture. Farmers in Pakistan have been greatly constrained by the inadequacy of the credit market. Most of the credit acquired by small farmers comes from non-institutional sources, including friends, relatives; money lenders traders, commission agents and landlords.

The total area of Pakistan is about 80 million hectares (197 million areas) of which 27 percent is cultivated area, 11 percent is cultivable waste and 4.5 percent is under forests (total 42.5%). The remaining 57.5 percent of the area consists of deserts, mountains and is unsuitable for agricultural and forestry. The land-ownership in Pakistan is highly concentrated. A large percentage of the rural population, over 20 percent, is land-less which forms a class of agricultural labourers. They sell their household labour in order to earn livelihood.⁵

There have been three major attempts at land reforms in Pakistan in 1959, 1972 and 1977. The land reforms of 1959 succeeded in acquiring a surplus land of 2.53 million acres, representing about 4 percent of the cultivated land. One evaluation found that as much as 0.93 million areas of the acquired land consisted of uncultivated land, hills and riverbeds (Qayyum, 1980).

In case of 1972 land reforms, the amount of land resumed was only 1.83 million acres. On January 5, 1977, the government announced a further reduction in the ceiling of land ownership. The individual land holding was reduced to 100 acres of irrigated and 200 acres of non-irrigated land. Even after the three land reforms, the objective of equity has not been significantly achieved. The prime reason being the lack of proper implementation due to illegal transfers and concealments by the landowners and a large number of exemptions contained in the respective land reform ordinances.

Given the state of the economy and the agrarian structure discussed above, it will not be surprising to see a large part of rural population in poverty. There are wide discrepancies in the estimates by various studies carried out to determine the extent of rural poverty in Pakistan. In Pakistan, as elsewhere, the poor are often marginal farmers or land-less labourers whose main source of income is the rural non-farm sector. Although the long-term solution for rural unemployment and underemployment lies in the adoption of a development strategy and economy wide policies that do not penalize labour use and that generate rapidly growing productive employment outside agriculture (Srinivasan, 1993), the farm sector plays an important role in poverty alleviation.

⁵Figures are taken and calculated in this paragraph from *Agricultural Statistics of Pakistan*, 1996-97.

Although agricultural income accounts for just half of total income of poor households, dependence of the poor on agriculture is much greater because of the strong linkages between the farm and non-farm sectors. In addition, the skewed distribution of land ownership in Pakistan means that agricultural income contributes to income inequality, whereas rural non-agricultural income tends to reduce inequality (Alderman *et al.*, 1993).

IV. TRENDS OF RURAL POVERTY IN PAKISTAN

Rural poverty levels in Pakistan are significantly higher than urban levels (*see* Table 2). It is evident from the Table 2 that rural poverty was 40 percent corresponding to the 32 percent of urban poverty in 2001. One reason, agricultural growth in Pakistan did not reduce poverty as rapidly as in some other East Asian countries was that growth after the ‘Green Revolution’ tended to be labour displacing because of farm mechanization. Pakistan’s rate of poverty reduction would have been even more modest if migration to the Middle East had not absorbed a vast pool of rural labour. Some of this labour displacement was rooted in policy distortions that undermined the direct contribution of agricultural growth to poverty reduction.

TABLE 2

Estimates of Poverty (Rural and Urban) in Pakistan

Name and Survey (Year)	Percentage of Population Living in Poverty	
	Rural	Urban
Malik (1988)	24	19
Ahmad and Allison (1990)	20	16
Malik (1991)	16	7
World Bank (1992)	36	28
Amjad and Kemal (1997)	23	15
Jafri (1999)	25	26
Jamal and Ghaus Pasha (2000)	32	27
World Bank [Based on 1998-99 (2003)]	36	24
Qureshi and Arif (2001)	40	32

Source: Srinivasan (1993), World Bank (1994, 2003) and *Pakistan Human Condition Report* (2002), p. 89.

Poverty can also be evaluated in terms of social indicators. Based on these measures Pakistan compares unfavorably with other South Asian and low-income countries. On all but two social indicators of poverty (access to improved water and access to sanitation), Pakistan's performance is significantly better than that of India but rural poverty is more severe in Pakistan (36%) than India (30%) (*see* Table 3).

TABLE 3
Social Indicators of Poverty in Pakistan and
India (Percentage of Population), 2000⁶

Indicators	Pakistan	India
Access to an improved water source	90	84
Access to improved sanitation facility adult	62	28
Male adult literacy rate (% ages 15 and above)	58	69
Female adult literacy rate (% ages 15 and above)	29	46
Primary school gross enrolment ratio (% of relevant age group)	75	102
Rural population below the natural poverty line (%)	36	30

Source: World Bank (2003).

A survey of human capital investments found that investment in education in Pakistan has been low since 1970.⁷ Although farm growth and social indicators are not directly linked, the extent of poverty and the quality of human resources are likely to be correlated with agricultural performance. Improving health and education services would help to alleviate poverty and improve the productivity of rural labour force.

V. DETERMINANTS OF RURAL POVERTY IN PAKISTAN

While the literature on the measurement of poverty is relatively abundant, studies about the determinants or causes of poverty are scarce. However, it is

⁶All figures reported in Table 3 are for the year 2000. Enrolments are expressed as a percentage of the population in the relevant age group that is attending school and can exceed 100 percent if individuals from outside the age group attend primary school.

⁷*See* Ali (2001) for more details.

precisely in this area where research can be most useful, since the main causes of poverty need to be understood in order to be able to design the most efficient policies to reduce it.

There are several approaches that can be taken in the analysis of the causes of poverty based on the micro as well as on macro data. Malik (1992; 1996) and Chaudhry (1994; 2003) have studied the determinants based on the micro data. However, Amjad and Kemal (1997), Ali and Tahir (1999) and Mohsin, Kemal and Qadir (2001) have analyzed the determinants of poverty based the macro data using single variable case. In this study, we follow the same methodology that is based on the macro data but using multivariate analysis.

The present study is based on the macro variables taken from Kemal (2001) for the years 1963-99. Multivariate regression analysis is carried out to examine the determinants of rural poverty in Pakistan. The dependent variable is considered the rural poverty. The explanatory variables are agriculture growth rate, Gross Domestic Product (GDP) growth rate, consumer price index, trade openness index, unemployment rate, remittances, per capita income and Gini coefficient. Kemal (2001) hypothesized that agriculture growth rate, Gross Domestic Product (GDP) growth rate, trade openness index, remittances, per capita income and Gini coefficient have the negative relationship, and consumer price index and unemployment rate have the positive relationship with rural poverty. The Ordinary Least Square (OLS) method of regression is used on the above mentioned macro economic variables and results are estimated in Table 4.

Three different equations of the same model are estimated in order to reduce the effects of multi-collinearity and results are reported in Table 4. As we can see, the explanatory power of all three Equations, as measured by R^2 is significantly high. The overall test of significance, F-test, is accepted at 1 percent level. The Durbin-Watson test statistic suggests that there is no autocorrelation as the value of d comes closer to the 'crucial' value of 2 (which corresponds to zero autocorrelation) in three equations. The results of Equation 1, suggest that all variables have the correct signs according to their hypotheses and coefficients of consumer price index and per capita income are significant at 5 percent and 1 percent respectively. Three variables have been used to capture the impact of growth on rural poverty, *viz.* agriculture growth rate, GDP growth rate and per capita income. According to empirical results, growth in terms of per capita income has the significant effect to alleviate rural poverty.

TABLE 4
The Determinants of Rural Poverty in Pakistan,
OLS Regression Results, 1963-99

Explanatory Variables	Estimated Coefficients (Equation 1)	Estimated Coefficients (Equation 2)	Estimated Coefficients (Equation 3)
Intercept	-12.84 (-0.41)	-13.11 (-0.62)	1.12 (0.05)
Agriculture Growth Rate	-0.27 (-0.47)	-0.39 (-1.12)	-0.55 (-1.26)
GDP Growth Rate	-0.24 (-0.57)	—	—
Consumer Price Index	9.36** (2.30)	8.95* (3.50)	8.81* (2.85)
Trade Openness Index	-34.41 (-0.92)	-35.96 (-1.53)	—
Unemployment Rate	3.46 (1.12)	4.41*** (1.96)	5.05** (2.03)
Remittances	-0.0003 (-0.10)	—	—
Per Capita Income	-0.013* (-3.65)	-0.014* (-5.96)	-0.017* (-10.48)
Gini Coefficient	-8.63 (-0.15)	—	-30.66 (-0.72)
R^2	84.61	86.9	88.6
Adjusted R^2	79.2	84.4	85.20
F-test	29.49*	33.27*	38.65*
Durbin-Watson Statistic (d)	1.86	1.97	1.98

- Notes: (i) *Indicates that the coefficients are significant at the 1 percent level.
 **Indicates that the coefficients are significant at the 5 percent level.
 ***Indicates that the coefficients are significant at the 10 percent level.
- (ii) The figures in parentheses are t-ratios.
- (iii) A dash (—) refers to the situation where corresponding variables are dropped in the equations to reduce multi-collinearity problem.
- (iv) The dependent variable is rural poverty

Equations 2 and 3 reveal the same results except coefficient of unemployment rate. Both equations have the high coefficient of determinations with significant F-test at 1 percent level. In these two equations, all variables have the accurate signs. Consumer price index and per capita income are significant at 1 percent level, while unemployment at 5 percent of level in both equations.

The empirical results suggest that inflation, unemployment and growth have the significant effect to alleviate rural poverty in Pakistan. Rests of the variables from the analysis have correct relationship but are not significant.

VI. CONCLUSION AND POLICY IMPLICATIONS

Poverty is mainly a rural phenomenon as majority of the population is living in rural areas of Pakistan. Rural economy of Pakistan is characterized by high population growth rate, low literacy rate particularly in females, high dependency ratio, unhygienic living conditions, poor sanitation system, lack of health facilities and poor infrastructural facilities. Social sector of the rural economy of Pakistan is very poor and rural households have very little access to these facilities. Household size on average in the rural areas is higher than the urban areas. The main conclusions are summarized in the following:

- (i) The incidence of poverty in rural areas is more widespread than in the urban areas. It was 40 percent in rural areas as compared to 32 percent in the urban areas.
- (ii) There is ample evidence that rural poverty, which declined rapidly in Pakistan in the 1970s and 1980s, has returned in the 1990s.
- (iii) Pakistan's economic performance is significantly better than that of India but rural poverty is more severe in Pakistan.
- (iv) Per capita income (growth rate), consumer price index (inflation) and unemployment (employment) turn out to be the major variables affecting rural poverty.

In sum, growth does benefit the rural poor, and some benefits have trickled down to them, directly or indirectly, through rising per capita income. Government should take some steps to control the inflation rate. Rural poverty elimination is impossible unless the economy generates opportunities for investment, entrepreneurship, job creation and sustainable livelihoods. There is a need to develop and promote micro and small-scale enterprises relating to agriculture and livestock sectors to alleviate rural poverty in Pakistan.

REFERENCES

- Alderman, H., L. Cord, N. Chaudhry, C. Cornelius, N. Okidegbe, C. D. Scott and S. Schonberger (2001), Rural poverty. *PRSP*, 2001, World Bank.
- Alderman, Harold and Marito Garcia (1993), Poverty, Household Food Security, and Nutrition in Rural Pakistan. *Research Report*, Washington, DC: International Food Policy Research Institute (IFPRI).
- Ali, Karamat (2001), *Pakistan: The Political Economy of Human Resource Development*. Vanguard Books (Pvt.) Limited, Lahore.
- Ali, Syed Salman and Sayyid Tahir (1999), Dynamics of growth, poverty and inequality in Pakistan. Paper presented at the 15th Annual General Meeting of the PSDE held in Islamabad in November 5-8, 1999.
- Amjad, Rashid and A. R. Kemal (1997), Macroeconomic policies and their impact on poverty alleviation in Pakistan. *The Pakistan Development Review*, Volume 36, No. 1, pp. 39-68.
- Arif, G. M., Hina Nazli and Rashida Haq (2000), Rural non-agricultural employment and poverty in Pakistan. *The Pakistan Development Review*, Volume 39, No. 14, pp.1089-1110.
- Chaudhry, Imran S. (1994), Determinants of Rural Poverty in Punjab (Pakistan): A Village Study. M. Phil. Thesis, Bahauddin Zakariya University, Multan, Pakistan.
- Chaudhry, Imran S. (2003), An Empirical Analysis of the Determinants of Rural Poverty in Pakistan: A Case Study of Bahawalpur District with Special Reference to Cholistan. Ph.D. Thesis, Islamia University, Bahawalpur, Pakistan.
- Gilani, I. et al. (1981), *Labour Migration from Pakistan to the Middle East and its Impact on the Domestic Economy*. PIDE, Islamabad.
- Government of Pakistan (2002), *Pakistan Human Condition Report 2002*. Centre for Research on Poverty Reduction and Income Distribution, Islamabad.
- Government of Pakistan, (1997), *Agricultural Statistics of Pakistan*. Food, Agricultural and Livestock Division, Islamabad.
- Government of Pakistan, *Pakistan Economic Survey*, Various issues. Federal Bureau of Statistics, Islamabad.

- International Fund for Agricultural Development (2001), *Rural Poverty Report 2001: The Challenge of Ending Rural Poverty*. Oxford: Oxford University Press.
- International Labour Organization (2003), *Working out of Poverty*. Report of the Director-General in International Labour Conference, 91st Session, ILO Office, Geneva.
- Irfan, M. and R. Amjad (1984), Poverty in rural Pakistan. In A. R. Khan and E. Lee (eds.), *Poverty in Rural Asia*, ILO/ARTEP.
- Jafri, S. M. Younas (1999), Assessing poverty in Pakistan. In *A Profile of Poverty in Pakistan*, Mahbubul Haq Centre for Human Development, Islamabad.
- Kemal, A. R. (2001), Structural adjustment, macroeconomic policies and poverty trends in Pakistan. *Asia and Pacific Forum on Poverty: Reforming Policies and Institutions for Poverty Reduction*, held at the Asian Development Bank, Manila.
- Khan, M. H. (1999), *Agricultural Development and Changes in the Land Tenure and Land Revenue Systems in Pakistan*. Oxford University Press, Karachi.
- Malik, S. (1992), A Study of Rural Poverty in Pakistan with Special Reference to Agricultural Price Policy. Ph.D. Thesis, University of Sussex, United Kingdom.
- Mohsin, Hasan, M. Mohammad, Ali Kemal and Usman Qadir (2001), *Impact of Trade Reforms Poverty*. Annual General Meeting of PIDE, 22-24 January.
- Qayyum, A. (1980), Policies and implementation of land reforms: Macro level study for Pakistan. In Inayatullah (ed.), *Land Reforms: Some Asian Experiences*, Kuala.
- Qureshi, Sarfraz K. and G. M. Arif (2001), *Profile of Poverty in Pakistan, 1998-99*. Pakistan Institute of Development Economics, Islamabad, (MIMAP Technical Report No. 2).
- Ravallion, M. (2000), *On the Urbanization of Poverty*. Mimeo, World Bank: Washington, DC.
- Schultz, T. W. (1964), *Transforming Traditional Agriculture*. New Haven: Yale University Press.

- Srinivasan, T. N. (1993), *Poverty Alleviation in South Asia. Working Paper*, Yale University, New Haven, Connecticut.
- Todaro, Michael P. (2000), *Economic Development*, 7th edition. Addison Wesley, p. 170.
- World Bank (1990), *World Development Report 1990: Poverty*. New York: Oxford University Press.
- World Bank (1994), *Social Indicators of Development*. Baltimore: Johns Hopkins University Press.
- World Bank (2001), *World Development Report 2000-2001: Attacking Poverty*. New York: Oxford University Press.
- World Bank (2003), *World Development Indicators*. Washington, DC: World Bank.