

25039  
August 2001

**Rural Strategy Background Paper #3**



# Rural Poverty

## *Trends and Measurement*

Nwanze Okidegbe



*Rural Development Strategy*

*Background Paper #3*

---

# **Rural Poverty**

## **Trends and Measurement**

**Nwanze Okidegbe**

---



*Work in Progress*

*The World Bank*  
*Rural Development Family*

This report is one in the series of background studies prepared for the 2001 update of the World Bank's Rural Development Strategy. This series was created to disseminate findings of work in progress and to encourage the exchange of ideas among Bank staff and all others interested in development issues. This paper carries the name of the author and should be used and cited accordingly. The findings, interpretations, and conclusions are the author's own and should not be attributed to the World Bank, its Board of Directors, its management, or any member countries.

This paper has been reviewed for publication by the Rural Development Strategy Background Paper Series Editorial Committee: Robert Thompson (Chair), Jock Anderson, Shawki Barghouti, Csaba Csaki, Cees de Haan, Gershon Feder, Sushma Ganguly, and Kees Van Der Meer.

# Contents

<b>Contents</b> .....	<b>iii</b>
<b>Acronyms</b> .....	<b>iv</b>
<b>Acknowledgements</b> .....	<b>v</b>
<b>Foreword</b> .....	<b>vi</b>
<b>Executive Summary</b> .....	<b>vii</b>
<b>1. Introduction</b> .....	<b>1</b>
<b>2. Rural Poverty Profile</b> .....	<b>6</b>
<b>3. Characteristics of Rural Poverty</b> .....	<b>11</b>
<b>4. Rural Poverty Trends</b> .....	<b>25</b>
<b>5. Monitoring Rural Poverty</b> .....	<b>39</b>
<b>6. Conclusion and Policy Implications</b> .....	<b>47</b>
<b>Appendix</b> .....	<b>51</b>
<b>Bibliography</b> .....	<b>61</b>

# Acronyms

CWIQ	Core Welfare Indicator Questionnaire
DAC	Development Assistance Committee
DES	Daily Energy Supply
ESI	Education Status Index
FAO	Food and Agriculture Organization
FAOSTAT	Statistical Office of the Food and Agriculture Organization
FIVIMS	Food Insecurity and Vulnerability Information Mapping System
FSI	Food Security Index
GDP	Gross Domestic Product
GNP	Gross National Product
IDG	International Development Goals
IFAD	International Fund for Agricultural Development
IPI	Income Poverty Index
GSI	Gender Status Index
HAI	Human Assets Index
HCI	Head Count Index
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
HSI	Health Status Index
HYV	High Yielding Varieties
LSMS	Living Standard Measurement Survey
MTEF	Medium Term Expenditure Framework
ODI	Overseas Development Institute
PAI	Physical Assets Index
RNFS	Rural Non Farm Sector
RWI	Rural Well Being Index
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
WBI	World Bank Institute
WDI	World Development Indicators
WDR	World Development Report

# Acknowledgements

The author is grateful to Professor S. Wadhwan of Howard University for his valuable contributions in providing background material and his input in drafting sections of this document. The author would like to thank Csaba Csaki and Harold Alderman for their insightful comments in reviewing this paper. Thanks also go to Ali Diallo and Tonia Kandiero, who prepared additional background information and the tables presented in this paper. Alan Zuschlag provided editorial support.

The preparation of this study has been supported by the Netherlands Ministry of Foreign Affairs through the Bank-Netherlands Partnership Program.

# Foreword

Poverty reduction is the overarching objective of the World Bank, and with 75 percent of the world's poor living in rural areas, rural development is a key element in achieving progress in this objective. At President Wolfensohn's request, the rural family has prepared a revised rural development strategy, *Reaching the Rural Poor*. This has been done in close cooperation with the regions and the other sectoral units active in the rural space. The objectives of the new strategy are to revitalize the World Bank's activities in the rural areas by: (a) adjusting the strategic framework; and (b) formulating a program of concrete and implementable actions.

The new rural development strategy addresses a rural situation which is different from the past, and a rural population which confronts many new problems, especially the challenges and opportunities facing the poor with regard to globalization. The new vision and articulation of a development strategy builds upon the strengths of past efforts as well as incorporates new ideas from other models. In this context, our priorities are geared to fulfill World Bank poverty reduction objectives in the rural sector. We are convinced that the following critical components of a rural development strategy will contribute most to accelerated growth in rural economies and, consequently, to measurable poverty reduction: crafting efficient and pro-poor policies and institutions; facilitating broad-based rural economic growth; improving access to, and management of natural, physical, and human assets; and reducing risk and vulnerability for the rural poor.

A number of studies on both global and regional issues, as well as a broad portfolio analysis were commissioned to support the development of the new strategy. These studies provided a rich foundation for both the regional action plans and the corporate strategy. This study is one of the selected number of background papers which have been published in the Rural Development Strategy Background Paper Series to provide Bank staff and others with a more in-depth look at some of the issues surrounding rural development, beyond what is covered by the strategy document itself. This paper, and others in the series are available on line at: [www.worldbank.org/ruralstrategy](http://www.worldbank.org/ruralstrategy). Additional information on obtaining other papers from this series can also be found at the end of this report.

*Robert L. Thompson*  
Director of Rural Development  
The World Bank

# Executive Summary

This paper, *Rural Poverty: Trends and Measurement*, seeks to examine the multidimensional nature of rural poverty within a holistic framework. The paper analyzes the trends and measurements related to key aspects of rural poverty, using 24 sample countries (Box 1.2) that represent various regions and levels of economic development. This analysis provides insight into who the rural poor are, the formulation of a development strategy for rural poverty reduction, and the interlocking barriers to progress in alleviating rural poverty.

The first section of the paper elucidates the nature, attributes, and pervasiveness of rural poverty in the contemporary world. It lays out the various facets through which rural poverty manifests itself. While 75% of the estimated 1.2 billion poor people live in rural areas, rural poverty has not received the attention that it deserves in the treatment of poverty reduction programs. In fact, official aid to rural areas, during the last decade, has declined. Even so the urgency of rural poverty reduction is not only justified but critically important for many low income developing countries.

The second section of the paper seeks to develop a clear understanding of who the rural poor are, and what challenges they face, as well as what processes engender and entrench their poverty. The rural poor are not a homogeneous group. Behind the aggregate numbers, it is important to recognize the various groups that make up the rural poor. The nature, magnitude and distribution of rural poverty is examined in terms of five categories. These are: the landless (those without any agricultural land), low asset base (smallholder farmers with up to two hectares of crop land), the pastoralists (those who are not settled in any specific area and derive most of their income from pastoral livestock), women-headed households, (those who do not receive remittances from partners or relatives living outside the household) and others, (e.g., indigenous populations). The common type of challenges that can be identified across different poverty groups in the sample countries include: food insecurity, poor asset base (physical and human), lack of financial assets, gender biases, domestic policy biases, and a poor natural resource base. The smallholder farmers are numerically the most important group of rural poor; and they, as well as the landless, face difficulties that are often compounded by the degradation of the environment. Pastoralist are especially vulnerable to ecological damage and resource depletion. The problem of unequal distribution of landholdings continues to be one of the main sources of persistent poverty in sample countries. The situation in respect of women-headed households requires special attention. They constitute a doubly disadvantaged group -- both as poor and as women. In some sense they are the poorest of the poor. They not only have fewer opportunities but also have lesser physical mobility.

In the third section, the paper reviews the basic characteristics of rural poverty. The various factors that result in lack of opportunity, empowerment, and security for rural poor are examined. In this context, five critical aspects of rural poverty are identified. These include; lack of income and economic assets, human development, gender equity, and food security.

Agricultural growth is critical in uplifting the rural incomes. Among the economic assets, land is the most important one. But data shows that land -- especially arable land -- is not adequately available in sub-Saharan Africa, Asia, the Middle East and North Africa, and Latin America. The availability of other assets, especially livestock holdings, on a per household basis, are extremely low. Besides, the basic agricultural tools are in short supply. In fact, lack of appropriate tools, equipment, and technology remains a serious constraint in increasing output and incomes. Further, the uncertainties and rigidities of the tenancy markets promote unequal relationships between landlords and the tenants. In particular, sharecropping and other allied arrangements generally serve to subvert the interests of the rural poor. As

a matter of fact the prevailing system of land rights are often serious obstacles to the adoption of better technologies, land improvement investments, and efficient use of land itself. Landlords are able to dictate terms on employment and wages. In fact, agricultural workers are subject to exploitative practices. Moreover, the rural non-farm sector (RNFS) activities, as a source of income and employment, are limited.

Lack of adequate physical assets -- especially infrastructures and communications, pose formidable hurdles to the rural poor in their efforts to escape poverty. Data on physical assets in the rural areas -- such as roads, electricity, telephones, radio, and newspaper are not readily available. But whatever little data that are available do suggest that the rural households are far less served in terms of these assets in comparison to urban households. Rural infrastructures are not only inadequate, but also badly managed.

Infrastructures through their effect on prices, diffusion of technology, and use of inputs serve to increase agricultural production and income in low income countries. As a matter of fact, it is not the size of the farm holdings *per se* that result in rural households being poor. Instead, it is the isolation of the farm holdings from major economic and social centers that is more likely to be the underlying cause of rural poverty. Improved availability of infrastructures can also help overcome market failures. As with roads, the access to electricity, telecommunications, and radios in the rural areas do lag behind their urban counterpart.

Deficiency in human assets is another factor that keeps the rural poor in poverty. Human assets -- in the form of educational and functional skills coupled with good health - are instrumental in enhancing higher productivity and growth. However, unlike their urban counterparts, the rural poor have low educational assets due to lack of access to schooling and low educational achievements. The health assets are also deficient because of poor nutrition and inadequate availability of health care. All these reduce the productivity and ability of the rural poor to earn enough income to meet their basic needs.

Lack of empowerment and voicelessness is another obstacle for the rural poor. Religious practices and legal systems perpetuate differential gender rights and roles. In fact, this practices also accentuates gender gaps in respect of access to education and health care. Poor rural girls are less likely to have access to education than their male counterparts. This also has a bearing on women's limited control on their reproductive health and excessive infant mortality. More than anything else, women lack a role in decision-making and voice in community affairs. Progress towards reducing rural poverty will remain marginal so long as rural women continue to face these problems. It is important that grassroots structures and associations of the rural poor be reinforced, in general, and that of the women in particular, so that they can make their voices heard both in developmental institutions and the market place.

The rural poor are also victims of vulnerabilities of various kinds -- such as those related to economic shocks, natural disasters, and food insecurity. Of course, food insecurity remains one of the most visible insecurities that the rural poor face. Food security requires: i) availability of food; ii) access to that food; and iii) provision of adequate nutrition. The rural poor are particularly vulnerable to food insecurity due to natural and seasonal factors.

Section four of the paper reviews rural poverty trends over the last decade for the sample countries with respect to income poverty, human assets, gender equity and food security. The inter and intra country trends in income poverty are assessed using the head count ratio and the income gap as the instruments of measurement. Overall evidence suggests little or no progress in rural poverty reduction in many of the sample countries. In fact, there are some signs of worsening of rural poverty in some countries. In some countries, especially in Asia, the percentage of population below the poverty line declined between 1990 and 1998 but the absolute numbers continued to increase with the growth in population. In few countries the decline in poverty was less perceptible due to population growth while countries like Pakistan, there

was, in fact, an increase in the numbers of the rural poor because of growth in population. At the other end, in countries like Colombia and Indonesia there has been an increase in rural poverty -- both in terms of proportion and absolute numbers of the rural poor. However, in general, the data suggest that the higher a country's GDP per capita, the lower is its incidence of rural poverty. With the present trends, it would be unlikely to achieve the international goal of reducing by half the absolute numbers of world's poor by the year 2015.

The trends in human assets in the sample countries show wide variability. The reason for this trend perhaps lies in the domain of public policies. For even where resources were limited, some governments have been more sensitive than others in providing basic education, health, water, and sanitation services. As a result some low income countries like Kenya, Philippines, India, and Algeria have ranked higher in respect of building higher human assets of their rural populations. In contrast, countries such as Morocco, Egypt, and Mexico have fared worse. Barring such exceptions, generally the human assets in rural areas are low for countries in the lowest income group.

In the same way, the performance of the social indicators show, in general, a modest improvement. There has been a ubiquitous decline in the adult literacy rate for all but one country in the sample for the period 1990-98. The average rate of decline has been 23.64 %. Trends in child mortality and life expectancy reflect a modest improvement. Also, less than 50% of the rural population in the 24 countries of the sample had access to sanitation and availability of safe drinking water.

The analysis shows a wide variability across sample countries in respect of gender bias and inequality. While women have made significant progress in some countries, they still lag behind men in others. In particular, there are major disparities in gender bias and inequality among men and women in Africa, Middle East and North Africa, and South Asia. There is the need for recognition of women's social and economic contributions in these regions.

The trends in food insecurity show that the number of rural households that go to bed hungry are much larger than that of the urban population. This is especially so for countries like Uganda, Bangladesh, and Kenya. The trends in food availability also show wide variability, across countries over the period 1990-98. This is particularly so in case of Algeria, Kazakhstan, Uganda, and Ukraine. The analysis of trends in food insecurity from the standpoint of provision of nutritional requirements was undertaken in terms of the per capita daily energy supply (DES) and the DES as a percentage of requirements. The results show that Bangladesh, Kenya, Peru, and Uganda are the most under-nourished countries among the sample countries. However, in general, there has been an improvement in the calorie in-take in the 24-country sample. It is also found that an increase in GNP per capita is associated with an improvement in the DES per capita as a percentage of requirements.

The final section of the paper discusses how to monitor and measure progress, or lack of it, of rural poverty. Issues related to setting of baseline and targets, choice of indicators, data problems and measures to overcome them are addressed. Because of the multifaceted nature of rural poverty, the factors involved in monitoring rural poverty are complex and multi-layered. From the stand point of monitoring, the analysis in the paper covered the five aspects of rural poverty i.e., income poverty, physical assets, human assets, gender equity, and food security. An essential step in monitoring rural poverty in terms of these aspects lies in the choice of appropriate indicators. A set of core indicators is developed for all the five aspects. An overall indicator of rural well-being; the rural well-being index (RWI) or Rural Score Card, is then developed as a simple average of the indicators of the five aspects referred to above. The Rural Score Card is intended to reflect the economic well-being of the rural people and can be taken to provide guidance in formulating poverty reduction strategies. The idea is to target poverty interventions to monitor changes more closely and quickly.



# 1. Introduction

## Nature and Attributes of Rural Poverty

The international community recognizes that reducing global poverty is one of the major development challenges of 21<sup>st</sup> century. Many believe that poverty is a threat to global security. This recognition caused the 1995 Social Summit in Copenhagen to agree that each member country should devise a program to reduce extreme poverty and measure progress against some agreed targets. This was followed by a proclamation of the General Assembly of the United Nations in June 2000 to reduce extreme poverty in half by 2015. The World Bank (2000) *Voices of the Poor* and (2000/2001) *World Development Report*, and the International Fund for Agricultural Development (IFAD) 2001 *Rural Poverty Report* have exhaustive treatment of different aspects of poverty and have shed light to the extent, nature and determinants of poverty, including the need for public action. In spite of increased awareness of the dehumanizing effects of poverty by the international community and even more pre-disposition of the donor community to channel aid to support poverty reduction programs in low income countries, there is limited progress in reducing poverty in rural areas where over 75% of the poor live.

Poverty can be summed up as a human condition that is characterized by pervasive deprivation. It is complex and multifaceted; and like heat, it cannot be seen-- it can only be experienced. There is no single catch-all phrase to describe the different aspects of poverty because it has an impact on a broad range of human experience. It is not only lack of sufficient income to afford the most basic needs of life, but also includes non-income factors such as lack of access to services, infrastructure, social resources, etc.. Poverty manifests itself in multiple channels such as malnutrition, poor health, lack of education and skills, shelter, poor access to water and sanitation. It also imposes limits to opportunity, and to tackle the challenges of existence, including falling easy prey to various economic and social shocks. In short, poverty is a multidimensional spectrum extending from the material to the non-material dimensions of well-being. This human phenomenon is particularly pervasive in rural areas of low income countries where the vast majority of poor reside.

The World population is estimated at about 6.0 billion, of which 54% (3.24 billion) live in rural areas. Of the 6.0 billion people, about 1.2 billion of them are in extreme absolute poverty (WDR 2000). And of these, an estimated 75% live in the rural areas. It is projected that even by 2025 over 60% of the world population in 'absolute poverty' would live in rural areas (Ravallion, 2000). Unfortunately, the progress in the reduction of poverty, especially in rural areas, continues to be slow. In a world-wide context, the poverty reduction rate during the nineties (1990-1998) was less than one-third of what is needed to reduce poverty by half between 1990-2015. In addition, the level of international aid in support of poverty reduction has not shown any increase. The data show that, over the period 1987-88 to 1997-98, the share of aid going to the poor developing countries (which have about 85 percent of the world's poor), has remained stagnant at around the 63 percent level (IFAD, 2000). As a matter of fact, the flow of official aid to rural areas during this period has declined, even though they have the greatest concentration of the poor. What is also discouraging is that support to rural economic activities, e.g. agricultural development, has been slowing down in most countries, especially in Africa, where rural poverty is increasing.

## Purpose of the Paper

“Rural Poverty: Trends and Measurement” is a background paper designed to provide input to the development of the new World Bank Rural Development Strategy. It is an assessment of changes in rural poverty since the advent of rural development strategy “From Vision to Action” in 1997. It has the primary purpose of analyzing the trends and measurements related to key aspects of rural poverty, using 24 sample countries which represent different levels of development and regions as focus of analysis. Since rural poverty is multifaceted, the paper embraces a holistic approach in its assessment in order to provide insight to the formulation of a development strategy for rural poverty reduction, including suggestions on how to monitor and measure progress, or lack of it.

The critical importance and need for a paper of this kind can be appreciated when it is recognized that the locus of world poverty and hunger remains concentrated in the rural areas of the low income countries (see Table 1.1). Until recently, many policy makers have predicated their poverty reduction measures on primarily raising general economic standards through the ‘trickle down’ effect of economic growth. While there is no question that sustained economic growth does have significant impact on poverty reduction, empirical evidence shows that the robustness of poverty reduction resulting from economic growth depends on the pattern of growth. It is a function of the extent that growth is pro-poor and is widely shared. The experience of the last decade has shown that the pace of poverty reduction resulting from the ‘trickle down’ process is almost infinitesimally small—especially for many low income countries with overwhelmingly large rural-based economies and growing populations.

The central message of the WDR 2000/01 which is based on research and experience inside and outside the World Bank over the past decade on what poverty is, and how it can be reduced, is that reducing poverty requires a holistic approach that involves increasing economic opportunities, facilitating empowerment and enhancing security for the poor. The WDR 2000/01 identified key factors (lack of essential assets) that tend to keep poor in poverty and calls for concerted action by the governments, donors, the private sector, and other stakeholders. The emphasis of WDR, however, is on poverty in general. This paper will discuss some of these factors from the rural perspective. It is expected that the analysis from this paper will inform the formulation of strategies and programs to address rural poverty reduction, including monitoring arrangements.

The primary objective of this paper is to improve the understanding of who the rural poor are, and to analyze the interlocking barriers to their progress,—which tend to form a vicious circle. Specifically, the paper addresses issues related to: a) low income and economic assets with emphasis on limited access to economic opportunities as well as income generating assets; b) lack of physical assets (infrastructure and communication) which limit not only the poor’s access to markets but also to efficient inputs and social services that affect their productivity; c) low human assets (education and health facilities), which impairs their functional skills and good health—inhibiting their ability to lead a productive and healthy lives, and in the case of Africa, contribute to a high incidence of HIV/AIDS; d) lack of empowerment and voice, especially for poor women, and how they are denied economic opportunities which perpetuate high fertility rates, large family size and serve as poverty trap; and e) vulnerability (food insecurity) that translate to child malnutrition, poor health and loss of productivity. The paper also addresses the issues of monitoring rural poverty and the related problems of the rural data system. The compelling reasons for focusing on rural poverty are discussed in Box 1.1.

**Box 1.1 Why Focus on Rural Poverty?**

In low-income countries, the vast majority of the poor reside in rural areas, where the incidence and intensity of poverty is usually higher than in the towns. Of the estimated 1.2 billion people who live in abject poverty, about 75 percent of them reside in rural areas. A review of 45 developing countries where data are available shows that, virtually in all of them, the proportion of population living below the poverty line was typically higher in rural areas (WDI, 2000). In China, the world's most populated country, people living below poverty line are six times more likely to be in rural areas compared to urban areas (ODI, 1999).

In fact the data show that more poor people will continue to live in rural areas than in cities for at least a generation. The rural share of the total number of poor households declines with urbanization – indeed, it declines at a slightly faster rate than the rural share of population declines due to selective migration. Still, on current trends, the rural share of the global number of poor will not fall below 50% before 2035 (Ravallion, 2000). Even in highly urbanized Latin America, where there are three times as many urban residents than rural residents, the number of people living on a dollar a day or less in urban areas did not exceed the number in rural areas until 1996.

The situation is the same with respect of other aspects of poverty. For example, while 90% of the urban population has access to safe drinking water, the figure is only 60% for the rural areas (UNDP 1998). Similarly, data show that physical assets (infrastructure and communication) such as roads, electricity, telephones, radio and newspaper are not readily available or in disrepair in rural areas. Furthermore deficiency in human capital in the form of low educational assets and functional skills, coupled with poor health care, serve as barriers to escaping poverty. The literacy rate in the urban areas is about double that in rural areas (43%) and health care facilities are in poorer condition when compared to those in urban areas.

Action on a poverty strategy is influenced by knowledge of who are the poor; where the poor are; and the challenges the poor face, as well as what processes that entrench their poverty. It is essential that programs aimed at addressing rural poverty are based on the best possible data. Besides, since it is clear from all available empirical evidence that poverty is more pervasive in rural rather than urban areas, policy makers need to improve their knowledge base on rural poverty. In fact no country is likely to solve its problem of poverty without first adopting an effective program for rural poverty reduction. All these facts do underscore the significance and urgency for the rural poverty reduction.

**The Selection of Sample Countries**

This study focuses on 24 developing countries (see Box 1.2). The primary rationale underlining this choice is the fact that this group of countries represents over 60% of the total rural poor of the developing world. The selection also takes into account the representation of various important regions of the world. Almost all of the rural poor of countries in the sample have similar characteristics, e.g., over 60% of the populations live in rural areas; agriculture is the cornerstone of their rural economies; human assets (education) are not generally accessible; and rural infrastructure remain underdeveloped. In the sample countries, particularly in Africa, agriculture accounts for over two-third of their exports and provides employment to around 70% of their total labor force (UN 1995). Even so, agriculture in these economies has been on the decline. This could account for the high incidence of malnutrition -- ranging from 25% -- 73% of the total population, with perhaps higher rates in rural areas (FAO, 1996). The picture of the status of human assets is equally bad (See Table 1.1). These data illustrate the immense nature of the challenge of poverty that these countries continue to face. Most of the analysis in this study is based on the data from the sample countries.

**Box 1.2 Focus Countries by Region**

<i>Africa</i>	<i>East-Asia &amp; the Pacific</i>	<i>Middle East &amp; North Africa</i>	<i>Latin America &amp; the Caribbean</i>	<i>South Asia</i>	<i>Europe &amp; Central Asia</i>
Côte-d'Ivoire	China	Algeria	Argentina	Bangladesh	Kazakhstan
Ethiopia	Indonesia	Egypt	Brazil	India	Romania
Ghana	Pakistan	Morocco	Colombia	Pakistan	Russia
Kenya	Philippines		Mexico		Ukraine
Nigeria			Peru		
Uganda					

**Organization of the Paper**

This paper is organized in six sections. Section one is the introduction and section two is on rural poverty profile that discusses who the rural poor are and what challenges they face. Section three reviews the characteristics of rural poverty and examines the literature on the factors that result in lack of opportunity, empowerment, and security for the rural poor; and discusses in details five aspects of rural poverty that includes lack of income, physical assets, human development, gender equity and food security. Section four is devoted to an examination of rural poverty trends using in the 24- country sample as mode of analysis. The trends are analyzed in respect to four of the five aspects of rural poverty that are discussed in Section three. Section five focuses on how to monitor and measure the progress, or lack of it, in defeating rural poverty. It also identifies the data problems and measures that may help address them. Finally, the last section offers conclusions and recommendations that highlight the key findings and the related policy implications.

**Table 1.1 Rural Poverty in Selected Developing Economies**

<i>Country</i>	<i>Most Recent Survey Year</i>	<i>Total Population (millions)</i>	<i>Rural Population (% of total Population)</i>	<i>Percent of Population Below Poverty Line</i>			<i>Rural Poor* (% of total poor)</i>
				<i>National</i>	<i>Rural</i>	<i>Urban</i>	
Algeria	1995	28.4	42.3	22.7	30.3	14.7	56.4
Bangladesh	1995-96	118.0	79.7	35.6	39.8	14.3	89.1
Brazil	1990	147.8	25.7	17.4	32.6	13.1	48.2
Cameroon	1984	9.7	64.9	40.0	32.4	44.4	52.6
China	1998	1239.0	68.8	4.6	4.6	-	68.8
Colombia	1992	36.4	29.7	17.7	31.2	8.0	52.3
Dom. Republic	1992	7.4	40.5	20.6	29.8	10.9	58.6
Ecuador	1994	11.2	41.1	35.0	47.0	25.0	55.2
Egypt	1995-96	58.6	55.3	22.9	23.3	22.5	56.3
El Salvador	1992	5.3	56.6	48.3	55.7	43.1	65.3
Estonia	1995	1.4	28.6	8.9	14.7	6.8	47.2
Georgia	1997	5.4	40.7	11.1	9.9	12.1	36.3
Ghana	1992	15.8	65.2	31.4	34.3	26.7	71.2
Honduras	1993	5.3	54.7	53.0	51.0	57.0	52.7
India	1994	898.0	74.7	35.0	36.7	30.5	78.4
Indonesia	1998	203.4	61.3	20.3	22.0	17.0	66.4

*(continued on next page)*

**Table 1.1 Rural Poverty in Selected Developing Economies**

Country	Most Recent Survey Year	Total Population (millions)	Rural Population (% of total Population)	Percent of Population Below Poverty Line			Rural Poor* (% of total poor)
				National	Rural	Urban	
Kazakhstan	1996	15.9	43.4	34.6	39.0	30.0	48.9
Kenya	1992	25.0	74.4	42.0	46.4	29.3	82.2
Kyrgyz	1997	4.6	65.2	51.0	64.5	28.5	82.5
Lao PDR	1993	4.4	79.5	46.1	53.0	46.1	91.5
Lesotho	1993	1.8	77.8	49.2	53.9	27.8	85.2
Madagascar	1993-94	12.7	74.8	70.0	77.0	47.0	82.3
Moldova	1997	4.3	53.5	23.3	26.7	20.1	61.3
Mongolia	1995	2.5	38.4	36.3	33.1	38.5	35.0
Morocco	1998-99	28.0	45.0	19.0	27.2	12.0	64.4
Nepal	1995-96	21.6	88.0	42.0	44.0	23.0	92.2
Nicaragua	1993	4.2	45.2	50.3	76.1	76.1	68.4
Niger	1989-93	8.0	83.8	63.0	66.0	52.0	87.7
Nigeria	1996 <sup>1</sup>	114.5	59.6	65.6	67.8	57.5	61.6
Pakistan	1991	110.8	67.6	34.0	36.9	28.0	73.4
Panama	1997	2.7	44.4	37.3	64.9	15.3	77.3
Paraguay	1991	4.3	51.2	21.8	28.5	19.7	66.9
Peru	1997	24.4	28.3	49.0	64.7	40.0	37.3
Philippines	1997	73.5	44.2	40.6	51.2	22.5	55.8
Romania	1994	22.7	45.4	21.5	27.9	20.4	58.9
Sierra Leone	1989	3.9	71.8	68.0	76.0	53.0	80.2
Sri Lanka	1990-1991	17.0	78.8	35.3	38.1	28.4	85.1
Tunisia	1990	8.2	41.5	14.1	21.6	8.9	63.5
Uganda <sup>1</sup>	1997	20.3	86.7	44.0	48.2	16.3	95.0
Yemen	1992	13.9	77.0	19.1	19.2	18.6	77.4
Zambia <sup>1</sup>	1996	9.2	60.9	60.0	74.9	34.0	76.0
Zimbabwe <sup>1</sup>	1996	11.2	67.9	47.2	62.8	14.9	90.3

Note: <sup>1</sup> Poverty line data is based on nutrition-based poverty lines.: \* Calculated from available data. Comparison between countries are not valid.

Source: World Development Indicators (WDI), 2000 and World Development Report, 2000/2001.

## 2. Rural Poverty Profile

Behind the empirical data, indices and debates surrounding the calculation of poverty measurement are the real people who are unable to meet the basic necessities of their daily lives. These are the armies of the rural poor, who face the stark realities and challenges of the dehumanizing phenomenon called poverty. It is around them that the rural poverty reduction strategies and development interventions have to be designed and adopted. It is therefore necessary to identify who the rural poor are. To do so, one needs to know where they live and the challenges posed by the prevailing poverty levels in their respective habitats. This section will attempt to answer the question, "who are the rural poor?" by exploring the challenges that they face. These challenges vary from country to country (see Appendix 1). We classified the rural poor into five broad categories, i.e., the *landless* (those without any crop land), low asset base (*smallholder* farmers with up to two hectares of cropland), the *pastoralists* (those who are not settled in any specific area and who derive most of their income from pastoral livestock), *women-headed households* (women who are charged with supporting their families without any outside support), and *others* (e.g. indigenous populations).

*The Landless.* Land is obviously the single most critical resource for the rural poor. However, a sizable proportion of the rural population is landless. Although hard data are not readily available for comparison over time, the situation seems to be deteriorating in many countries as the population increases. The problem is particularly acute in Bangladesh, Brazil, Egypt, India, Mexico, Pakistan and the Philippines. For example, the landless and near landless account for more than 40% in Bangladesh (Table 2.1). In addition to those countries, the problem of landlessness is becoming a central issue of policy concern in Colombia, and Peru in Latin America; Indonesia, in Asia; Ethiopia and Kenya in sub-Saharan Africa; and Morocco, in the Near East and North Africa.

**Table 2.1: Poverty Profile by Landholding Class, Rural Bangladesh, 1988-89**

<i>Landholding class (acres of owned land)</i>	<i>Per cent of Population</i>	<i>Headcount Index of Poverty (%)</i>
Landless (0-0.04)	13.9	61.4
Near landless (0.05-0.49)	31.5	53.9
Marginal (0.50-1.49)	19.2	43.4
Small (1.50-2.49)	11.3	34.2
Medium (2.5-7.49)	18.8	26.6
Large (7.50+)	5.3	10.1
Rural Bangladesh	100.0	47.5

Source: Bangladesh Bureau of Statistics in Ravillion and Sen 1994 and IFAD, Rural Poverty Report 2001.

Landlessness has many causes, including population pressure, unequal distribution of land, privatization of state farms and plantations, degradation of the environment and the agrarian structure, among others. Population pressure and uneven land distribution, separately or in combination, can accelerate the process of landlessness. This is most evident in Asia and parts of Africa. Among the 12 countries for which comparable data are available, the distribution of landholdings has become more unequal in seven countries (Table 2.2).

**Table 2.2: Land Gini Coefficient<sup>a</sup> for the 24 Selected Countries**

Countries	Survey Period		
	1961-70	1971-80	1981-90
Algeria	0.72	0.873	..
Argentina	0.873	..	0.8598
Bangladesh	..	0.57	0.4187
Brazil	..	0.837	0.8521
China	..	0.211	0.19
Colombia	..	0.8592	0.7742
Cote-d'Ivoire	..	0.4229	..
Egypt	..	0.4587	..
Ethiopia	..	0.4379	0.4701
Ghana	...	..	..
India	0.59	0.6144	0.5924
Indonesia	0.5535	0.5559	..
Kazakhstan	...	..	..
Kenya	..	0.6841	0.770
Mexico	0.747	..	..
Morocco	0.642	..	..
Nigeria	...	..	..
Pakistan	0.63	0.5363	0.5835
Peru	0.9355	0.9105	..
Philippines	..	0.5093	..
Romania	...	..	..
Russia	..	..	..
Uganda	..	0.5896	..
Ukraine	...	..	..

<sup>a</sup>This coefficient measures the extent that land distribution in rural areas among individuals or households deviates from a perfectly equal distribution.

Source: IFAD, Rural Poverty Report 2001. The challenge of ending Rural poverty.

many of the rural poor are subsistence farmers, they rely on their land to meet their household food security needs, and their income to meet their other basic needs. However most of the poor farmers have marginal lands that cannot produce enough to meet the even subsistence needs of their households. For example, in Kenya the poor farmers are concentrated in Nyaza and Western provinces (siaya, Busa and Kakamega districts) which have poor soils. In nine out of the 24 countries of the sample, the availability of arable land per capita declined between 1995 and 1997 (Table 2.3).

In the rest of the 15 countries there has been no significant change in the arable land per person over this period. The arable land frontier has been reached in many countries; in others, the cost of new land development is too high and out of reach to the rural poor.

Among the countries for which data are available, the distribution of landholding has become more unequal in some countries, especially in Latin America, Asia, and Africa. In Algeria, Argentina, Ghana,

Privatization of state plantations/farms has sometimes caused the loss of land rights of holders under customary tenure, as in parts of Asia and Africa. There has been illegal transfer of land and steady encroachment by private individuals, timber concessions and government development schemes. Degradation of the environment can lead to a complete loss of productivity of land and force families out of their area in search of employment. This is happening in many parts of the Near East and North Africa, Latin America and sub-Saharan Africa.

There are other agrarian structural factors which adversely affect small and marginal farmers, forcing them into landlessness. These are: eviction of tenants in the wake of unsuccessful tenancy and land reform programs and the introduction of new technology, including mechanization; dispossession of small and marginal farmers in areas of export crops by large entrepreneurs or by the collapse of international commodity prices; loss of land through indebtedness; natural disasters and calamities; and the absence of social safety nets. One example of the latter is the loss of animal herds during a drought, leading to the creation of a new class of a landlessness in developing countries which need to be monitored closely in any program to alleviate poverty.

*Low Asset Base.* Land is the most important asset that rural poor farmers have, and those farmers with two or less hectares of land holdings, especially marginal land, are considered to have a low asset base. Since

Indonesia, Kenya, Kazakhstan, Pakistan and Uganda, the availability of arable land per head of agricultural population actually declined for all eight countries, implying that the rural poor have lost some of their access to land over the last several decades. This is because increasing concentration of landholding has compounded the impact of falling average size of holding which accompanied a reduction in the availability of arable land per head of agricultural population.

The land distribution data that are available for the 15 out of the 24 sample countries show a highly unequal pattern, with the land Gini coefficient in excess of 0.50 for 11 countries (Table 2.3). Among these, the arable land per head of agricultural population declined in eight countries, again suggesting a decline in the access of the rural poor to land. Smallholder farmers, with less than two hectares of crop land, have limited access.

Another facet of resource availability can be gauged in terms of the availability of irrigated land. Table 2.3 shows that by and large the availability of irrigated land as a percentage of crop land remained virtually stable in the sample countries over the period 1995-1997. Only six of the 24 show a modest increase in the proportion of crop land which is irrigated. The average increase is only 0.90%. While India registered the highest increase of 9.67%, Pakistan had the lowest increase of 1.25% among the sample countries. Mexico and Bangladesh rank second and third with respective increase of 9.09% and 7.14%. Only one country (Ukraine) showed a decline (of 12.5%) in the proportion of irrigated land in the total crop land. For 17 of the remaining countries, there has been no change in the irrigated land as a percent of crop land.

**Table 2.3. Natural Resources Availability for 24 Selected Countries**

Country	Arable land (hectares per person)			% Change	Arable land per head of Agricultural population (ha)			% Change	Irrigated land (% of crop land)			% Change
	1995	1996	1997	1995-97	1995	1996	1997	1995-97	1995	1996	1997	1995-97
Algeria	0.26	0.26	0.26	0	1.08	1.06	1.05	-2.8	7	7	7	0
Argentina	0.72	0.71	0.7	-2.78	6.21	6.2	6.19	-0.3	6	6	6	0
Bangladesh	0.07	0.06	0.06	-14.3	0.11	0.11	0.11	0	42	43	45	7.14
Brazil	0.34	0.33	0.33	-2.93	1.74	1.76	1.79	2.87	5	5	5	0
China	0.1	0.1	0.1	0	0.15	0.15	0.15	0	37	38	38	2.7
Colombia	0.5	0.5	0.5	0	0.21	0.21	0.21	0	23	24	24	4.34
Cote-d'Ivoire	0.22	0.21	0.21	-4.55	0.39	0.4	0.4	2.56	1	1	1	0
Egypt	0.05	0.05	0.05	0	0.11	0.11	0.11	0	100	99	100	0
Ethiopia	0.17	0.17	0.17	0	0.21	0.21	0.27	28.6	2	2	2	0
Ghana	0.16	0.16	0.16	0	0.28	0.27	0.27	-3.6	0	0	0	0
India	0.17	0.17	0.17	0	0.3	0.3	0.3	0	31	32		9.67
Indonesia	0.09	0.09	0.09	0	0.18	0.19	0.19	5.56	16	15	16	0
Kazakhstan	1.98	1.98	1.98	0	8.76	8.74	8.68	-0.9	7	7	7	0
Kenya	0.15	0.15	0.15	0	0.19	0.19	0.18	-5.3	1	1	1	0
México	0.28	0.28	0.28	0	1.04	1.04	1.05	0.96	22	22	24	9.09
Morocco	0.33	0.33	0.32	-3.03	0.82	0.83	0.83	1.22	13	13	13	0
Nigeria	0.27	0.25	0.24	-11.1	0.81	0.76	0.75	7.4	1	1	1	0
Pakistan	0.17	0.17	0.17	0	0.29	0.28	0.28	-3.4	80	81	81	1.25
Peru	0.16	0.15	0.15	-6.25	0.48	0.48	0.48	0	42	42	42	0
Phillipines	0.07	0.07	0.07	0	0.18	0.18	0.17	-5.6	16	16	16	0

(continued on next page)

Table 2.3. Natural Resources Availability for 24 Selected Countries

Country	Arable land (hectares per person)				Arable land per head of Agricultural population (ha)				Irrigated land (% of crop land)			
	1995	1996	1997	% Change 1995-97	1995	1996	1997	% Change 1995-97	1995	1996	1997	% Change 1995-97
Romania	0.414	0.41	0.41	-0.97	2.05	2.05	2.15	4.88	31	31	31	0
Russia	0.86	0.85	0.86	0	7.21	7.3	7.51	4.16	4	4	4	0
Uganda	0.26	0.26	0.25	-3.85	0.33	0.32	0.31	-6.1	0	0	0	0
Ukraine	0.65	0.65	0.65	0	3.47	3.58	3.7	6.63	8	7	7	-12.5

Source: Calculated from World Development Report, World Bank, (1995, 1996 and 1997, respectively).

*Pastoralists.* The pastoralists have livestock as their main source of livelihood. Most of them are found mainly in sub-Saharan Africa and the Near East and North Africa. They are heavily concentrated in the natural resource poor areas, especially in the arid and semi-arid areas of just a few countries: Morocco, Ethiopia, Nigeria, Ghana and Egypt. They depend on communal grazing and water resources. For pastoralists, mobility of their herds and access to higher potential areas for dry season grazing is critical for the survival of their system. These issues are compounded by not only the demographic and socio-economic changes but also by such land use changes as loss of grazing land to arable agriculture, environmental protection, urban development and landscape fragmentation.

In the past, pastoralist populations have not received the kind of attention accorded to other vulnerable groups of rural poor. They are not represented in policy dialogue for several reasons. Either because they are: (a) simply not there; (b) are not allowed to participate for socio-religious reasons; (c) are of a different ethnic/linguistic group than the majority; and/or (d) their voices cannot be heard as a result of inequality in their society. In addition, their living conditions have not been well-studied, and because of their mobility and dispersal, it has not been easy to provide these populations with education and health facilities. Furthermore, they do not have access to such services and inputs as the construction of watering points, fodder and dry feed supply for their animals, that will assist them to improve their asset base. Given the abject neglect this group face in many countries, and the fact that they are usually ill-equipped and ill-prepared to address their challenges, they are likely to remain under-privileged and impoverished for a long time.

*Households headed by women.* The incidence of poverty among women headed households also tends to be high. The recent World Bank Policy research report -- "Engendering Development" states that the evidence varies across countries and studies. However, it is pertinent to take note of a recent review of 61 studies on headship and poverty. This review found that in 38 cases, poverty among female headed households were disproportionately greater (Buvinic and Gupta 1997). Furthermore, it also found that certain subgroups of female headed households are disproportionately among the poor.

However, in contrast to the Buvinic and Gupta (1997) a separate study by Quisumbing, Haddad; and Pena (2000) that analyzes 11 data set from 10 developing countries using different poverty measures and methodologies across countries failed to find any significant difference between female- and male-headed households. Yet another review of the studies carried out by the World Bank on female headed households in the 1990's shows that evidence is mixed and varies across countries and with methodologies (Haddad and others 1996; Lampietti and Stalker 2000). The perception, however, is that poverty among women headed households is higher in low income countries, especially in Africa and South Asia.

*Ethnic Minorities and Indigenous Populations.* The indigenous groups such as the tribal and aboriginal groups constitute a viable segment of the poverty stricken masses in the developing countries. They are generally relegated to resource poor areas without access to economic and/or social infrastructure that they need to improve their lives. The available data suggest that the proportion of indigenous people in the rural population is significant for tribals in India (5% percent), and Mexico (50%), and Peru (73 percent), and Bangladesh (1.1%) (IFAD, 1988). In the Latin American countries the minority ethnic communities, especially the peasants, face more difficulties in their production and other economic activities, and also in their interaction with the market because of linguistic barriers and other cultural factors.

On the other hand in countries like India, Pakistan, and Bangladesh, the indigenous populations are essentially tribal minorities. In most of these cases, these communities have a social organization based upon a "collecting economy" with few agricultural activities. The development challenges are: how to preserve the hunting grounds of these people from the effects of agricultural expansion; and how to improve their living conditions without destroying cultural heritage and identity.

The incidence of poverty among minority indigenous population groups is usually higher than in other rural population groups. For example, in India in 1989, an estimated 62 percent of the scheduled tribal population lived below the poverty line, as compared with 42 percent of the total rural population. Therefore, in many of these countries, the alleviation of rural poverty will have to start by measuring the improvements in the social and economic conditions of minority ethnic population groups.

### 3. Characteristics of Rural Poverty

Identifying the rural poor by itself is not enough. It is equally important to understand the characteristics and dimensions of rural poverty, and its causes. Although poverty exhibits certain common characteristics, the rural population and the poverty they endure have distinct features. Rural areas are usually ethnically diverse, with a small population that is widely dispersed across physically isolated locations. The rural poor generally face interlocking barriers to economic, social and political means to earn decent living. In effect they lack basic opportunities (barriers from taking advantage of expanding economic opportunities to earn gainful employment, build and increase assets through a combination of market and non-market actions), empowerment (social barriers that deny the poor voice in local decision-making that often result from distinctions of gender, ethnicity, race, and social status), and security (inability to reduce the vulnerability to ill health, economic shocks, natural disaster and food insecurity) which are required to fight the scourges of poverty (WDR, 2000/1). This section will focus on five determinants of poverty: (a) income and economic assets; (b) physical assets (infrastructure and communication); (c) human assets (education and health); (d) empowerment and voice (gender equity); and (e) vulnerability (food security).

*Income and Economic Assets.* The performance of a country's economy is the major determinant of the extent and depth of poverty among its populations. The stark differences in poverty levels between rich and poor countries show the central role of economic development in poverty reduction. These differences generally reflect disparities in sustained economic growth over the long term. There is increasing evidence from studies of rural societies that "Engel's Law" which hold that in large populations there is a negative correlation between outlay per person and the proportion spent on food (i.e., basic consumption) is not applicable for the poorest 5-15 percent of the population in low income countries. The need for food for these people is urgent, in that as income per capita increases, they increase or roughly maintain the proportion spent on food. As a result, economic growth leads to rising consumption of the poorest population while economic decline result in falling consumption by this group, and even deeper poverty. This relationship highlights the importance of the improvement in incomes and hence of economic growth for poverty reduction of the poorest people (ODI, 1999& Lipton, 1988).

Specialization and trade play an indispensable role in economic development and poverty reduction. Creating, sustaining, and integrating markets for agricultural inputs/ outputs and manufactured consumer goods provide incentives for farm-households to move away from self-sufficiency towards greater specialization and trade which raises rural incomes. However, after accounting for economic growth and trade, table 1.1 shows that the poor are still concentrated in the rural areas.

The analysis below shows some of the key determinants of income as it relates to rural poverty. For most low income countries, agricultural growth is essential to economic growth. Very few low-income countries have achieved rapid non-agricultural growth in the absence of rapid agricultural growth. Most of the developing countries that grew rapidly during the 1980s and 90s experienced rapid agricultural growth in the preceding years. Agricultural growth stimulates economic growth in nonagricultural sectors, and vice-versa. The overall impact is to increase employment and reduce poverty.

Rural household asset-holdings is one of the major determinants of poverty and in rural areas land is the most important asset. Smallholder farmer landholdings vary between regions, from 0.65 hectare per household in Asia to 1.5 hectares in sub-Sahara Africa. Smallholders' shares of total arable and permanent cropland vary between a low of 8 percent in the Near East and North Africa and Latin America and the Caribbean, and 89 percent in sub-Saharan Africa. Data from 83 countries show that in 34

countries the crop landholding per household falls below 1.0 hectare, while in only 39 countries smallholders' share of total arable and permanent cropland exceeds 25 percent (Besley & Burgess, 1998).

Data on other assets, especially livestock, are scantier. In 49 countries where data are available, the average number of large livestock (cattle, camels and buffaloes) per smallholder farmer household is low. Holding large livestock is above three per household for only 11 countries, one to three for 21 countries and less than one in three for 17 countries. The average holding of small livestock (sheep, goats, pigs, etc.) is below three in 25 countries. Virtually no systematic data are available on the ownership of draught animals by smallholders. By and large, analogous to the concept landlessness, a lack of oxen is emerging as a new indicator of poverty because it seriously impairs the household's ability to make efficient use of its land. In rural Ethiopia, it was found that 38 percent of households were without any work oxen. More than a quarter of all rural households were without basic hand tools.

In some highly undeveloped rural societies, wealth is taken to be determined by ownership of animals – cattle, camels and small ruminants. For example, in the Kidal area of Mali, most households' ownership fell below three camels and 10 small ruminants, or 30 small ruminants, the minimum herd considered to be necessary for a stable household (Siroki & Siroki, 1993). A major problem with such herds is the need to sell animals to buy cereals for food and to meet cash needs. When stock has to be sold before it was reproduced, households are caught in a poverty trap in having to use capital for consumption. The advantage of small ruminants, especially goats, in these circumstances is that they are relatively small capital base. A single camel, on the other hand, can represent 50 percent of a household's capital and leave little with which to produce capital if liquidated. In addition to the 45 percent of smallholders whose cattle-holding falls below the critical 20 and 30 animals required to meet their basic needs; especially at times of climatic stress, they enter the poverty trap.

Fishermen and small, artisanal groups usually lack appropriate vessels, gear and technology. In Yemen, many boat owners are not fishermen themselves but auctioneers and other shore-based entrepreneurs. It is estimated that more than half of all *sambuks*<sup>1</sup> are owned by entrepreneurs, while slightly above one-half of all *houris*<sup>2</sup> were under skipper or family ownership. However, in recent years there has been a trend towards a higher proportion of fishermen-owned boats. The distribution of catch is generally favorable to the boat owner. The common practice is for the crew to retain about 50 percent of the catch; although there are variations to this arrangement.

In countries with large numbers of landless and land poor households, many from poor agricultural families often work as tenants and sharecroppers. Tenancy covers cash rents, sharecropping and other arrangements excluding customary tenure. Both the percentage of households and percentage of land holdings under different types of tenurial arrangement vary between countries. The total incidence of tenancy ranges anywhere between 2 percent of total landholding (as in Turkey) and 6 percent (as in Panama). Out of 40 countries with data, the share is 20 percent or above for 25 countries (Arulpragasam, 1990). The extent of sharecropping is found to be between 0.2 percent of landholding in India and 29 percent in Cape Verde. Other countries with relatively high incidence of sharecropping include: Bangladesh (21 percent), Egypt (10 percent), Jordan 10 (percent), Pakistan (18 percent) and Tunisia (9 percent). An estimated 30 percent of all farm families are tenants in Bangladesh, Indonesia, Malaysia,

---

<sup>1</sup> The small *sambuk* is a six-to-eight-metre-long boat, in wood or fiberglass, powered by a six-to-15-horsepower outboard engine and operated by a crew of three to four. The *Abri Sambuk* is a larger boat, 13.5-15 meters long, with an inboard diesel engine, operated by a crew of six to 12.

<sup>2</sup> The *houris* is a dugout canoe, three meters long, operated by one to two men, and powered by a sail or paddles; some have a six-horsepower outboard engine.

Nepal, the Philippines, and Sri Lanka (Arulpragasam 1990). Tenancy is most common in fertile/irrigated flood crop lands such as central Thailand (57 percent). Ownership-cum-tenancy is important in many areas; 30-50 percent of all tenants in central Bhutan, Java and Sri Lanka are owners-cum-tenants.

The terms of sharecropping differ from region to region. In Asia, for example, the sharecropper will pay 50 or even 100 percent of the input cost plus 100 percent of labor cost (including his own labor) and received between 35 and 50 percent of the output. In Latin America the landlord will often contribute 50-100 percent of input costs and no labor, and will receive 50-66 percent of the output. While in the Near East and North Africa, some sharecropping arrangements have inputs provided by the landlord while others, in the open field, do not. At first, the sharecropper provides between 30 and 100 percent of all farm labor and may also meet some of the costs; the landlord meets investment costs. The farmer receives between 30 and 50 percent of the output, with the balance going to the landlord.

Significant numbers of landless and land-poor households, also depend on non-agricultural wage earnings as their major income source. In fact, an increasing number of the rural poor are turning to the rural non farm sector (RNFS) as an alternative source of income and employment. The RNFS is seen as hedge against the risk of low household income and consumption during periods of natural disaster or bad harvest. Non-farm economic activities in rural areas are concentrated mainly in mining, the service sector, including tourism, and manufacturing industries. However, as the RNFS activities increase, the factors which influence labor markets will play more important role in determining the welfare of the rural poor. But most importantly, many rural poor live in areas with little or no infrastructure necessary to take full advantage of RNFS opportunities.

*Physical Assets.* One of the biggest constraints on the possibility of expanding the domain of opportunities for the rural poor to escape poverty is the lack of aggregate infrastructure and communications. For the purposes of this paper, we define physical assets to include rural infrastructure (roads, electricity, etc.) and communication (telephone, radio and newspapers). There is empirical evidence that physical assets supports the expansion of farm and non-farm economic activities in low income countries. In fact, it is generally viewed as an essential requirement for growth of the rural economy but is often inadequate to spur economic activities, even in relatively advanced developing countries. Data on physical assets (rural infrastructure) are not readily available but what is available tends to suggest that rural households are far less well-served than urban households in developing countries. The gap in many countries is so large that it can not be simply attributable to only the higher per capita cost of infrastructure provision in rural areas and the differences in population density between rural and urban areas (Lanjouw & Feder, 2001). Some informed observers have argued that the observed gap is due to "urban bias" in public policies and expenditure allocations (Lipton, 1977). In spite of factors contributing to low physical assets in the rural areas, we take the position that lack of access to economic infrastructure traps the rural poor into abject poverty by denying them opportunity to improve their sources of income. Below are some examples drawn from some of our sample countries. More recent figures on the disparities between rural and urban populations' access to different types of infrastructure are not readily available in a carefully compiled form, but some impressions can be acquired by piecing together disparate bits of information (see Table 3.1).

Infrastructure (rural roads) has an important impact on both agricultural and non-agricultural activities, as well as on social development in rural areas. Rural roads are also important component of access to transport for rural populations. A study in Bangladesh (Ahmed and Hossain 1990) has shown that infrastructure, through its effect on prices, diffusion of technology, and the use of inputs, has increased agricultural production in low income villages by 32 percent. Several other positive outcomes were noted: a 33 percent increase in household income of the poor, mostly from crops, wages, and livestock and fisheries; increases in savings and investment; better access to institutional credit; and improvement in health. The importance of rural infrastructure in giving improved access to the poor cannot be

overemphasized. Although there are no data on rural roads in Bangladesh but not much has changed since 1990.

Rural roads systems are often of poor quality and of unpredictable availability. Malmberg-Calvo (1998) illustrates the condition of rural transport infrastructure in Sub-Saharan Africa, where the majority of the poor live in rural areas. According to her analysis, rural transport in Sub-Saharan Africa is characterized by "female portering, treacherous river crossings, seasonal access, and an occasional visit by a motorized vehicle." Household surveys show that 87% of trips in rural Africa take place on foot and that women spend more than 65% of the household time on transport.<sup>3</sup>

For rural populations in developing countries, community roads, tracks, paths and footbridges often constitute the local transport infrastructure. These serve as the first and last leg of journeys to access the basic needs of life such as water, health care and firewood as well as access to surrounding towns and cities. However, these tracks and paths that connect to the designated transport network are not generally included in statistics on the transport system. They are usually outside the direct responsibility of the government and are often overlooked by donor agencies. Malmberg-Calvo, in her work on rural Africa, shows that information on the undesignated network is poor or not available, and the network is largely unmapped despite its importance.<sup>4</sup> In Indonesia, in the mid-1980s, only about a quarter of villagers were linked only by roads, which were seasonally impassable and in Ethiopia only 20 percent of the population lived within a day's walk from any all-weather road (IFAD 1989c).

**Table 3.1. Rural-Urban infrastructure availability for the selected 24 countries**

Country	Telephone main lines Per 100 inhabitants		Most Recent Survey	Access to electricity		Access to Radio		Access to mass media <sup>b</sup>		Access to rural roads <sup>c</sup> 1998
	Rural 1995	Urban 1995		Rural	Urban	Rural	Urban	Rural	Urban	
Algeria	3.46	4.11		..	..	..	..	..	..	..
Argentina	..	..		..	..	..	..	..	..	..
Bangladesh	0.02	1.09	1994	10.4	75.2	22.3	42.3	4.6	25.9	..
Brazil	5.17/a	28.64/a	1996	72.4	98.8	77.7	89.8	31.9	62.0	9
China	0.94	9.26		..	..	..	..	..	..	..
Colombia	10.01	9.96	1995	73.6	99.2	79.5	91.4	49.9	74.3	..
Cote-d'Ivoire	1.85	0.02	1994	13.7	69.7	35.6	60.6	6.5	25.6	..
Egypt	..	..	1995	91.9	99.0	54.6	73.4	..	..	..
Ethiopia	1/a	99/a		..	..	..	..	..	..	60
Ghana	0.07	0.64	1998	20.9	82.4	42.7	64.0	10.2	35.1	20
India	..	..	1993	30.5	83.1	31.6	59.4	..	..	22
Indonesia	..	..	1997	..	..	56.7	74.5	17.2	45.4	..
Kazakhstan	6.56	15.33	1995	99.5	99.5	36.9	62.0	72.0	82.6	..

<sup>3</sup> Surveys were conducted in Burkina Faso, Zambia and Uganda (Barwell, 1996). The results were consistent with that from data from earlier surveys in Ghana and Tanzania (Malmberg Calvo, 1994).

<sup>4</sup> Malmberg-Calvo presents data from sub-Saharan African countries to illustrate the length of the undesignated rural transport network, which forms the transport lifeline for rural communities. For example, in South Africa, there are twice as many undesignated roads as local government roads. The Makete district in Tanzania has more than one and a half times as many undesignated roads as local government roads. A community of 2,500 people in a sub-district in Ghana has twice as many undesignated roads and three times as many tracks as local government tracks.

**Table 3.1. Rural-Urban infrastructure availability for the selected 24 countries**

Country	Telephone main lines Per 100 inhabitants		Most Recent Survey	Access to electricity		Access to Radio		Access to mass media <sup>b</sup>		Access to rural roads <sup>c</sup> 1998
	Rural 1995	Urban 1995		Rural	Urban	Rural	Urban	Rural	Urban	
Kenya	0.28	2.08	1998	4.3	47.5	58.4	78.2	29.5	61.6	..
Mexico	2.02/a	35.72/a	1996	81.45	97.50	..	..	..	..	..
Morocco	..	..	1992	15.6	84.7	80.1	89.2	6.2	39.2	..
Nigeria	..	..	..	..	..	..	..	..	..	10
Pakistan	0.11	3.86	1991	44.7	95.2	27.0	50.7	..	..	..
Peru	0.09	3.58	1996	17.8	92.0	72.7	90.5	32.1	81.8	25
Philippines	0.86	2.31	1998	51.9	91.1	73.8	86.0	23.9	62.0	..
Romania	3.85	20.66	..	..	..	..	..	..	..	5
Russia	8.49	20.11	..	..	..	..	..	..	..	5
Uganda	0.03	1.06	1995	1.5	40.2	32.8	37.5	14.8	45.1	..
Ukraine	7.37	19.82	1998	99.8	99.7	..	..	..	..	..

Note: a. This is the percentage of households with telephone b. This is the percentage of women who read newspaper at least once a week. c. This is the percentage of rural population without all-season motorable road within 1-2 km of household

Sources: World Telecommunications Development Report, 1998, DHS database, Worldbank data for road accessibility

In countries like India and Pakistan, it has been found that small agricultural holdings by themselves may not necessarily result in household being poor; what is crucial is geographical location. A small land holding isolated from major economic and social centers is more likely to associate with rural poverty (IFAD 1991a). The lack of accessibility with the associated high transport costs to take outputs to market in urban centers hinder both farm and non farm productivity. An evaluation by USAID of six new rural roads in the Philippines found that the fall in the costs of transportation and broadening of the market led to a substantial increase in both agricultural and non-farm incomes between 1975 and 1978 following completion of the roads. Further, there was a 113 percent increase in the number of non-farm establishments in the vicinity of the roads (Ranis, *et al.*, 1990).

Improved availability of infrastructure may also be valuable in helping to overcome market failures. For example, Binswanger *et al.* (1989) provide evidence that location of bank branches in rural areas tends to be influenced by the availability of infrastructure. Similarly, Kawagoe (1998) indicates that railway development in early Meiji Japan played a critical role in promoting the emergence of peasant entrepreneurs and traders.

Table 3.1 also presents the disparity between rural and urban areas in access to electricity, telecommunications and radios for sample countries. Although these data may not be reliable indicators of absolute levels of access, they do serve the purpose of illustrating *relative* differences in access between rural and urban areas. While the proportion of population connected to electricity over time may have changed, the proportion of rural population with electricity is lower than the corresponding number for urban population in the sample countries. As evident from the table, electricity coverage is much higher in urban than rural areas for all countries, except Ukraine.

No precise indicator for 'access' to the telephone or telecommunications network exists that can be applied universally or consistently across countries. For example, "teledensity" measures telephone lines per 100 people, providing an estimate of the population served by fixed line networks. However, teledensity does not take into account the growth of cellular phone networks that have become significant

in many areas of the developing world, including some of the poorest, such as Bangladesh. Nevertheless, the indicators used in this section, while incomplete, are meant to provide a rough picture on availability and access to telecommunications (Lanjouw & Feder). The above notwithstanding, the proportion of rural households having a telephone connection is significantly lower than their urban counterparts for all the sample countries. Similarly, the same pattern exists with respect to mass media.

It is obvious from the above analysis that the rural poor lack adequate physical assets necessary to overcome the poverty that they face. While many factors, including ones not explored in this paper, hinder their access to infrastructure and communications, public actions are required to improve access in low income countries in order to have a handle on rural poverty reduction.

*Human Assets.* One of the factors that trap the poor in perpetual poverty is low level of human assets. Human assets involve capacity for functional and marketable skills and good health. These assets serve as vehicles for productive and healthy lives. They are acquired through education (attainment of functional skills to earn and raise household income levels) and good health (nutrition and health care). The rural population generally have low human assets because they are generally less educated and less healthy (see table 3.2).

**Table 3.2. Rural-Urban basic education and health data for the 24 selected countries**

Country	Infant mortality (under 5 years)			Access to				
	Survey period	Rural	Urban	Survey period	School Enrollment <sup>b</sup>		Health Services	
		1990- 2000 <sup>a</sup>	1990-2000		Rural	Urban	Rural	Urban
Algeria		..			..	..	95	100
Argentina		..			..	..	21	80
Bangladesh	1994	153.4	114.3	1994	73.9	71.5	..	..
	1997	130.9	96.4	1997	75.5	79.1	..	..
Brazil	1991	126.5	95.4	1991	20.9	43.0	..	..
	1996	79.4	49.1	1996	87.9	95.4	..	..
China		..	..		..	..	89	100
Colombia	1990	33.6	35.8	1990	66.4	84.2	..	..
	1995	43.2	34.1	1995	84.5	94.1	..	..
Cote d'Ivoire	1994	165.2	120.2	1994	40.7	60.8	11	61
	1988	163.2	87.9	1992	77.0	91.5	..	..
Egypt, Arab Republic	1992	131.6	71.1	1995	78.4	92.5	..	..
	1995	116.0	64.5				..	..
Etiopia		..			..	..	..	..
	1988	162.5	131.0				45	92
Ghana	1993	149.2	89.9	1993	69.3	86.6	..	..
	1998	122.0	76.8	1998	70.3	86.5	..	..
India	1993	130.9	78.3	1993	63.5	84.1	80	100
	1991	116.5	83.7	..	..	..	..	..
Indonesia	1994	105.7	58.5	..	..	..	..	..
	1997	78.5	47.6	..	..	..	..	..
	1995	51.9	43.3	1995	73.6	71.1	..	..
Kazakhstan	1989	91.6	88.5				..	..
Kenya	1993	95.6	75.4	1993	66.2	70.9	40	..
	1998	108.6	88.3	1998	81.8	85.4	..	..
México	1987	78.4	104.2		..	..	60	80
Morocco	1992	97.9	58.7	1992	34.7	72.7	50	100

Table 3.2. Rural-Urban basic education and health data for the 24 selected countries

Country	Infant mortality (under 5 years)			Access to				
	Survey period	Rural	Urban	Survey period	School Enrollment <sup>b</sup>		Health Services	
		1990- 2000 <sup>a</sup>	1990-2000		Rural	Urban	Rural	Urban
Nigeria	1990	208.0	130.1	1990	46.4	73.1	62	85
Pakistan	1991	131.9	93.6	1991	45.7	74.9	35	99
Peru	1992	130.9	67.4	1992	80.7	87.6	..	..
	1996	99.6	46.4	1996	84.2	88.7	..	..
Philippines	1998	62.5	45.8	1993	63.9	67.4	74	77
Romania		..			..	..	..	..
Russian Federation		..			..	..	..	..
Uganda	1988	198.4	164.3				42	99
	1995	159.1	133.5	1995	62.2	77.5	..	..
Ukraine		..			..	..	..	..

a. Some of the data may fall outside this range

b. This is percent of de-facto household population age 6 to 10 enrolled in school.

Source: World Development Indicators database2001, United Nations Statistics Division and UNESCO, Statistical Yearbook, 1998, Human Development Report, 1997 and DHS database, Demographic and Health Surveys, Macro International Inc.

Education assets of the rural poor are low because of lack of access to schooling and low educational achievements. In some low income countries, most children, especially girls, have little or no schooling. The data from the sample countries show that in Morocco only 35% of rural children are enrolled in school as compared to 73% of urban children. In fact all the 24 countries in the sample show that school enrolment among urban children are constantly higher than those of rural children.

Health assets of the rural poor are deficient because of poor nutrition and inadequate health care necessary to ensure bodily and mental capacity for longevity and resistance and/or quick recovery from illness. Poor rural households are more likely to be malnourished because of inadequate calories intake (food insecurity); this reduces their ability to fight off illness; and which in turn reduces their productivity and ability to earn enough income to meet their basic needs. This vicious circle traps them in perpetual poverty. Table 3.2 shows that the incidence of infant mortality is higher in rural areas with the possible exception of Mexico. This could be the result of caloric under-nutrition and micro-nutrient shortage, and exposure to infections, mainly from unsafe drinking water, that impede nutrient absorption which are prevalent among children of poor rural households (IFAD, 2001). In addition, access to health services in rural areas is very poor. For example, as of 1995, only 11% of rural households in Cote d'Ivoire had access to health services. This translates to slow recovery from illness and injuries with associated loss in earning power and further perpetuation of impoverishment.

In practice, low human assets translate to poor earning power and low life expectancy. Limited functional skills means that rural laborers are impoverished when they have little control over wages or when they are out of work or are unable to find work in periods of high unemployment. Lack of education also inhibits the rural poor from taking advantage of new opportunities. Lack of training and marketable/operational skills can be a significant constraint. Take the case of displaced households in the Kidal area in Mali in 1973, and cyclone hit and displaced households in Bangladesh in 1997 and 1999. A process of impoverishment following the 1973 drought forced many households out of the pastoral economy in Mali. Similarly the cyclone hit thousands of households who were forced out of the agrarian economy in Bangladesh. They have been wandering from place to place for over a decade. When

attempting to assist them, it was found that many of these households no longer had the skills, capital, or social and economic bonds to the rest of the pastoral community or agrarian system, which would enable them to return to being pastoral producers. The development of functional skills is therefore an important tool for increasing opportunities for productive existence.

Similarly, in Jamaica, a lack of skills and a low level of educational achievement have condemned most rural female laborers to low pay and insecure employment. In Nepal in 1984, 40 percent of the labor force was estimated as being under-employed. The caste system seems to block new opportunities, and this is reinforced by a low level of literacy in all social groups. Among the tribal groups in Andhra Pradesh, India, literacy is only 7.3 percent for men, 3.5 percent for women – the lowest of all tribals in the country. It is easy for others to exploit these people, who are also ill-equipped to handle technological packages intended to improve their lot. Evidence of similar alienation can be found among the Amerindians in Latin America; the majority still use their native languages and are unable to communicate in official Spanish. Seventy percent of the rural population in Bolivia still communicate in the Quechua or Aymara languages. In an IFAD project in Peru, it was found that extension of new technology was not possible until relevant training was organized in the local Aguaruna language (IFAD, 1995).

Rural areas do not only lack health care facilities but also lack trained health workers. These workers are reluctant to live and work in rural areas. A report on health services in Zimbabwe presents statistics from two areas: Chitungwiza, which is a large conurbation near the capital Harare, and the rural district of Murehwa (Bijlmakers et al., 1996). According to the report, 85% of those seeking treatment in Chitungwiza reached the first place of treatment in less than one hour (1993 figures), whereas in Murehwa district, the corresponding figure was only 42%. Furthermore, in Chitungwiza, 21% incurred costs in reaching the first place of treatment (1994 figures) of about \$0.25 (1994 figures). In comparison, 32% of those seeking treatment in Murehwa district incurred costs: about 38% paid less than 2 dollars and 25% between 2 and 4 dollars. These figures illustrate higher costs and greater length of time that rural populations encounter, compared to urban populations, in accessing desired health services – yet another indicator of the lower levels of access available to rural populations (Lanjouw & Feder).

- *Empowerment and Voice.* Lack of empowerment and related voicelessness is an important determinant of rural poverty. This is particularly true with rural women in many developing countries who face all sorts of difficulties and are powerless to overcome them, simply because of their gender. While gender biases vary among countries, in many countries in Africa and Asia customary gender norms often lead to political, economic and educational inequalities that perpetuate women's lack of access to economic resources, control over decision-making, and participation in public life. Legal systems and religious practices often reinforce gender rights and roles. Legal systems can constrain women from becoming independent economic actors by restricting their rights in divorce and in inheritance of land and other productive assets (WDR, 2000/1).
- The rural poor have low levels of human assets (education and health) because of limited access to education and health care. The gender gap in these services are larger among the rural poor, especially in Africa, South Asia, and North Africa and Middle East. In these regions, poor rural girls are more unlikely to have access to education than their male counterpart and thereby denying them the skills they need to lead productive lives. In some societies, the lower value assigned to women and girls translate to excess infant mortality. In many low income countries, rural women have less access to health care, limited control over their reproductive health and unacceptably higher proportion die during child birth. Estimates based on official national data find that as a result of excess female children mortality; about 7 percent of girls under age five are unaccounted for in China and Korea, and more than 4 percent in India and other parts of South Asia (WDR, 2000/1). Tables 3.3 and 3.4 show the gender disparities in access to education in the rural areas of the sample countries in Africa,

South Asia and North Africa and Middle East. The case of gender inequity in Ethiopia is illustrated in Box 3.1.

**Table 3.3. Gender Equity in education for the sample countries**

Country	Rural school enrollment <sup>a</sup>			Rural literacy rate <sup>b</sup>		
	Survey	Male	Female	Survey	Male	Female
	period	%	%	period	%	%
Algeria	1995	92	86	1987	63.4	35.8
		..	..	1995	78	54
Argentina		..	..		..	..
Bangladesh	1994	75.1	72	1981	35.5	15.3
	1997	74.8	72.2		..	..
Brazil	1991	17.9	24.5	1988	62.5	65.5
	1996	87.6	88.2		..	..
China		..	..	1990	84.3	62.9
Colombia	1990	63.8	68.8	1993	86.8	87.8
	1995	82.7	86.3		..	..
Cote d'Ivoire	1994	46.1	35.2	1988	44.4	23.4
Egypt, Arab Republic	1992	85.9	68.0	1986	45.7	16.5
	1995	87	69.7		..	..
Ethiopia		..	..	1984	32.7	16.4
Ghana	1993	70.6	67.9		..	..
	1998	69.8	70.8		..	..
India	1993	71.4	55.0	1981	47.3	17.6
				1991	57.9	30.6
Indonesia		..	..		..	..
Kazakhstan	1995	73.1	74.2	1989	98.6	94.4
Kenya	1993	66.7	65.8		..	..
	1998	81.3	82.2		..	..
Mexico		..	..		..	..
Morocco	1992	44.6	24.3	1994	55.2	28.7
Nigeria	1990	49.8	42.8		..	..
Pakistan	1991	56.8	33.2	1981	35.4	14.8
Peru	1992	81.0	80.3	1991	89.6	54.4
	1996	84.6	83.7		..	..
Philippines	1993	62.3	65.6	1990	90.4	89
	1998	76	80.4	1994	87.9	94.8
Romania		..	..	1992	97.5	91.1
Russian Federation		..	..		..	..
Uganda	1995	63.6	60.8	1991	65.3	40.3
Ukraine		..	..	1989	99.1	95.8

a. This is percent of de facto household population age 6 to 10 enrolled in school.

b. This data concerns the 15+ years old.

Source: World Development Indicators database2001, United Nations Statistics Division database. DHS database and Unesco Statistical Yearbook, 1998.

**Table 3.4: Gender Equity in Health for the sample countries**

Country	Survey Period	Unvaccinated <sup>a</sup> Children 1990-2000		Children with Diarrhea <sup>b</sup> 1990-2000	
		% Male	% Female	% Male	% Female
Algeria		..	..	..	..
Argentina		..	..	..	..
Bangladesh	1939-94	11.4	16.7	11.8	12.9
	1996-97	10.5	13.3	8.8	9.7
Brazil	1991	3.2	3	21	17.2
	1996	2.9	3.3	16	16.2
China		..	..	..	..
Colombia	1990	1.1	1	16.8	15.8
	1995	1.2	3.3	22	20.7
Cote d'Ivoire	1994	16.4	18.2	22.8	20.4
Egypt, Arab Republic	1992	3.5	4.2	20.2	17.4
	1995	2.1	3	22.9	20.1
Etiopia		..	..		
Ghana	1993	14	16.6	20.5	19.6
	1998	7.2	7	23.1	20.3
India	1993	27.8	32.3	11.8	11.2
	1994	17.7	18.2	16.5	14.1
Indonesia	1997	5.1	6	14.4	11.8
Kazakhstan	1995	..	..	17.1	14.5
Kenya	1993	3.1	3.5	18.8	18.7
	1998	2.4	2.9	17.8	16.4
México		2	3.4	29.4	28.4
Morocco	1992	5	7.4	17.3	16.3
Nigeria	1990	37.8	34	24.5	20.6
Pakistan	1991	25.3	30.9	18	18
Peru	1991-92	4	4.1	25	23
	1996	1.7	1.6	25.1	22
Philippines	1993	6.4	7.1	12.5	13.1
	1998	9.1	6.2	10	9.6
Romania		..	..	..	..
Russian Federation		..	..		
Uganda	1995	13.1	15.6	29.1	24.4
Ukraine		..	..		

a. Percentage of children 12-23 months who are lacking any vaccines by time of the survey.

b. Percentage of children under three years who had diarrhea and diarrhea with blood in the two weeks preceding the survey.

Source: DHS database

**Box 3.1**

The case of rural poor women in Ethiopia could illustrate the challenges that many poor women face in the rural areas of low income countries. While Women in industrial countries live, on average, almost 80 years, rural women in Ethiopia live, on average, only 41 years. Their short lives are marked by hardship, deprivation, and uncertainty. They have always been and still are, the most vulnerable of Ethiopia's people. The 1974 revolution, far-reaching and progressive in its proclamations and its intentions for women, did not bring about a real transformation of their low status, which is a legacy of centuries of feudal and patriarchal social norms (Sjaastad & Broomley, 1997).

Just about 7 percent of rural women (in some regions only 3 percent) are literate. Married off at a tender age of 14, by the age of 19, 55 percent of all women are married, widowed or divorced. Women have an average of seven children, 58 percent of whom are born with no health supervision. Sustaining too many pregnancies, too close together, many mothers die in childbirth -- 20 in 1,000, the highest rate in the world -- no surprise, given the burden of their traditional tasks and their general physical debility (Meinzen Dick et. al., 1997). Rural women are the worst nourished of any people in Ethiopia and illnesses are far more widespread among them than among men. Traditional biases and practices, not least female circumcision, result in lifelong impediments to the health and well-being of women and their children. Food consumption patterns give priority to men's needs. Other cultural taboos sanction further nutritional deprivation. In some regions, pregnant women are not allowed to drink milk, and/or eat eggs and meat. Thus, their children have high rate of deaths in the first 18 months of life, due to malnutrition. Famines and droughts also affect women disproportionately. The high incidence of divorce and separation during such crises leaves these women totally exposed. Many of them migrate to the cities where their only possible employment is prostitution. Rural poor women put in 16-18 hours a day of continuous hard work. Many of these are spent walking long distances to haul water and fetch fuelwood, and pounding grains for food. In the fields, planting, weeding, threshing, harvesting, transporting, storing and processing crops are among women's traditional responsibilities. They also participate in herding and dairy and poultry production. Three out of four vendors in village markets are women. Depending on the distance, they may walk to such markets two or three times a week to sell what they can transport on their heads or backs.

Despite the critical role that these women play in the above activities and in childcare, they have meager access to basic services. As producers, they have no independent access to land, credit, technology or extension. The most decisive factor in these women's deprivation, is that they lack a role in decision-making and voice in community affairs and, most importantly, in key rural institutions organizing access to development resources. This is reflected in low female membership in peasant associations in Ethiopia of about 10 percent, and is negligible at the level of decision-making. Peasant associations are the instruments for land allocation, but membership fees and other indirectly levied contributions, tradition and women's heavy workloads as farmers, mothers and housekeepers discourage them from joining.

Male dominance extends to service cooperatives, membership in which brings access to credit, inputs and agricultural extension. Only members of the peasant associations can be members of cooperatives; they must also pay separate registration and membership fees. Thus, only 7 percent of all service cooperative members are women. This percentage is even lower -- 6 percent -- in agricultural producer cooperatives which function exclusively on work points. The case of rural poor women in Ethiopia described above could be replicated in rural areas of many African and Asian countries. Unless the voices of rural poor women are heard and actions taken to address the extreme deprivations that they face, progress towards reducing poverty will remain marginal.

Source: Author

*Vulnerability.* One of the most visible vulnerabilities that the rural poor face is the problem of food security. Since many of the rural poor do not produce enough food to meet their household needs, they spend a high proportion of their incomes on food. The volatility of their consumption expenditure is generally treated as a problem of food security. Food security has three components: (i) availability of food from expanded production by increasing biological yields, intensifying land use, or expanding area under cultivation; (ii) access to food to meet adequate calorie intake and avoid a micronutrient deficiency;

and (iii) use of food to meet adequate nutritional status. Lack of access to food and poor nutrition are sometimes termed food vulnerability. It is possible for a country to be food secure at the national level but many household may be food insecure. This is because seasonal or annual food entitlements are extremely volatile, a situation often faced by many poor rural households. Table 3.5 shows the average national food availability position (1990-1998) in the sample countries.

The rural poor households are particularly vulnerable to food insecurity caused by natural factors such as stress in times of the year when food is scarce. In Bhutan, the length of the lean period for major food crops varies between two months in the western region where wheat is the staple crop, and six months in the central region where staple crops are rice, maize and buckwheat (IFAD 1990a). The hungry season in Bangladesh extends from September to early November when the main rice crop is harvested (Abdullah 1989). This period coincides with a low level of activity, but calorie intake still falls below requirement in many poor households. In the Gambia, seasonal imbalances in the food intake of lactating and pregnant women, due to intensive agricultural work (June-July) or the annual hungry season (August-September), are said to have led to a reduction in average birth weight (Lawrence, et al 1989).

In Vietnam, the percentage of households affected by acute food shortages due to natural factors increased significantly during the late 1980s, from about 22 percent in 1985 to 41 percent in 1988. Natural calamities, mainly typhoons and floods, not only destroy part of the harvest but damage dykes, small dams, irrigation and drainage networks and equipment (IFAD 1990m). Both in Vietnam and in the Sudan, acute regional food shortages seem to coexist with food surpluses in other parts of the country. However, in Vietnam food can be readily transported between surplus and deficit regions so long as the purchasing power is there. In Sudan, on the other hand, a severe lack of roads and transport makes it impossible to move food even during a crisis. The impact of drought on food security in the Sahel of Western Africa is described in Box 3.2.

**Box: 3.2 The Sahel**

The Sahelian region of Africa is extremely vulnerable to drought. When the Kidal area of Mali was seriously weakened by two major droughts in 1973 and 1984, the traditional coping strategies of the population were inadequate. The first response to drought, to sell animals and buy more than usual amounts of cereals, led to animal prices collapsing while grain prices soared. In 1973, most herders in central Mali migrated south in search of pasture, but surviving pastures in Kidal were generally adequate and Kidal herders stayed in their own area (Sjaastad & Bromley, 1997). When pastures in the south were found to be inferior quality, a large number of herders migrated to Kidal where pastures were quickly exhausted. Hence, many had to leave the Kidal area too. In 1984, the remaining Kidal households had not fully reconstituted their herds from the losses of 1973, and thus had a smaller safety margin and less flexibility than before. Natural calamity in the form of drought did leave the poor herders poorer.

Source: Author, based on IFAD 2000, *Ending Rural Poverty in the 21<sup>st</sup> Century*

**Table 3.5 Food Availability 1990-1998 in the Sample Countries**

<i>Country</i>	<i>Domestic Production</i>	<i>Domestic Consumption</i>	<i>Net Availability</i>	<i>Production Consumption Gap</i>	<i>Food Production Index (1989-1991)</i>
	<i>MT</i>	<i>MT</i>	<i>MT</i>		
Algeria	2,711.00	6,621.00	8,732.00	-3,910.00	112.00
Argentina	27,819.00	5,382.00	13,338.00	22,437.00	119.00
Bangladesh	20,385.00	21,213.00	22,958.00	-828.00	106.00
Brazil	50,196.00	23,599.00	58,926.00	26,597.00	114.00
China	401,165.00	266,757.00	411,532.00	134,408.00	130.00
Colombia	4,205.00	4,669.00	6,528.00	-464.00	107.00
Cote d'Ivoire	2,454.00	2,347.00	3,073.00	107.00	114.00
Egypt, Arab Rep.	14,910.00	15,877.00	22,869.00	-967.00	122.00
Ethiopia	8,977.00	8,809.00	9,788.00	168.00	
Ghana	4,105.00	3,176.00	4,477.00	929.00	113.00
India	189,160.00	166,325.00	187,955.00	22,835.00	114.00
Indonesia	46,280.00	42,896.00	49,477.00	3,384.00	110.00
Kazakhstan	15,616.00	4,272.00	12,178.00	11,344.00	80.00
Kenya	3,605.00	3,752.00	4,141.00	-147.00	103.00
México	28,528.00	18,960.00	35,988.00	9,568.00	114.00
Morocco	6,335.00	6,945.00	8,903.00	-610.00	102.00
Nigeria	35,007.00	20,604.00	36,008.00	14,403.00	118.00
Pakistan	23,042.00	20,289.00	23,126.00	2,753.00	121.00
Peru	2,537.00	3,255.00	4,879.00	-718.00	120.00
Philippines	12,127.00	10,003.00	14,595.00	2,124.00	115.00
Romania	19,798.00	5,128.00	20,441.00	14,670.00	95.00
Russian Federation	84,671.00	28,269.00	93,017.00	56,402.00	74.00
Uganda	3,593.00	2,629.00	3,603.00	964.00	107.00
Ukraine	37,800.00	10,957.00	37,173.00	26,843.00	60.00

Note:

Domestic Production: Production of Food Staples (staples – cereals, pulses, roots and tubers)

Domestic Consumption: sum of production net imports and stock changes, less feed, seed, and waste and other non-food usage.

Domestic Absorption (Net Availability): Sum of production and net imports plus stock changes

Production Consumption Gap: Difference between production and consumption

Food Production Index: 1989/91 = 100

MT: Metric Tons

Source: World Development Indicators database 2001, United Nations Statistics Division database. DHS database and Unesco Statistical Yearbook, 1998.

Historically, the rural poor of Ethiopia have been extremely vulnerable to drought and those of Bangladesh to flood and cyclones. Ethiopia has suffered from eight major famines between 1900 and 1975 and five "killer famines" between 1950 and 1985 (IFAD 1989). Those most vulnerable are the rural population. An average of about five million people were affected between 1981 and 1987, with the

highest concentration in Haraghe, Tigray and Welo. In addition to human mortality, migration of the famine victims creates new problems in both the losing and the receiving areas. While the relatively young depart, the old, the sick, the dying, and women are left behind. The resulting demographic imbalance compounds the food insecurity of the areas even long after the droughts were over.

Natural calamities of this dimension cause victims to sell their assets. A study of the Ethiopian famines of 1974-1975 and 1984-1985 revealed that after the first phase of the disaster, distress sales of the poor included their smaller stock such as sheep, goats (males first) and often young calves. This phase was followed by the sale of young cattle, then cows and finally work-oxen. In the last stages, households were forced to sell dwellings and farm implements. Thus, the famine victims of today are the potential victims of tomorrow. In 1984, in the Welo province, between 15 and 20 percent of households in the hard-hit areas systematically stripped and sold their homesteads during the famine because they fetched a better price than livestock (Rahman, A. 1990g).

Perhaps the most devastating aspect of famine is in terms of its cumulative consequences. The normal process of agricultural activity is disrupted when oxen and seed are lacking, and the availability of labor is reduced. This impact lasts much longer than the drought itself, crippling agricultural production so effectively that future famines tend to be worse, on a much wider scale.

The sufferings of the rural poor of Bangladesh due to natural disasters have been well documented. Between 1954 and 1988 there were about 12 major floods and 14 severe cyclones causing widespread loss of property, productive assets and human lives. In 1970, an estimated 200,000 people were killed by a cyclone; this was followed by another of similar severity in 1991. A severe famine struck the country in 1974 leaving an estimated one million dead and 30 million destitute. As a result of the 1974 famine, landlessness increased by about 3 percent in less than a year. The percentage of farm households renting land increased from 33 percent in 1974 to 39 percent in 1977 but the area operated declined from 25 percent to 23 percent, increasing the vulnerability of the tenant households. It is estimated that the 1991 cyclone caused serious setbacks for more than 10 million people. The cost of rehabilitation has been estimated at over one billion dollars. The most vulnerable area, to both floods and cyclones, are riverbanks and the coastal region, and this region has been beset by pervasive food insecurity.

## 4. Rural Poverty Trends

The goals for international development assistance are to address poverty in its various forms. There are seven generally accepted international development goals (IDG) for attacking poverty and there has been considerable interest in the trend toward achieving these goals<sup>5</sup>. The five broad characteristics of poverty that we discussed in chapter three are consistent with these goals. In this section, we will examine the trends of progress towards reducing the levels of income poverty, increasing the human assets of the rural poor, improving gender equity and reducing food insecurity. The analysis seeks to especially assess the rural poverty variation during the 1990's in the global and cross-country perspectives, using the sample countries as points of reference.

*Income Poverty.* This is a presentation of a general picture of analysis of income poverty trends in the 1990s from a global, across country, and within countries perspective. To obtain the global view of poverty, we follow the recent World Bank analysis<sup>6</sup> that defines the poor in terms of the number of people living below \$1 a day during the period 1987-98.<sup>7</sup> The use of income/consumption makes the numbers comparable across countries.

Table 4.1 shows that approximately 1.2 billion people live below \$1 dollar per day. It is estimated that about 70% of these people live in rural areas (Ravallion, 2000). The data indicates that the incidence of poverty declined from 29 percent in 1987 to 26 percent in 1998. The decline in the poverty incidence is attributed to the economic progress achieved in East Asia, in particular China. In East Asia and the Pacific, the number of poor decreased from 417 million in 1987 to 265.1 million in 1996 and a slight rise to 278 million in 1998. Much of the interruptions in the reduction of people in poverty are attributed to the Asian financial crisis of 1998, which resulted in a decline in growth rates. In the Middle

**Table 4.1 Population Living on Less than \$1 per Day in Developing and Transitional Economies (millions)**

<i>Region</i>	<i>1987</i>	<i>1990</i>	<i>1993</i>	<i>1996</i>	<i>1998 (est.)</i>
East Asia and the Pacific	417.5	452.4	431.9	265.1	278.3
Europe and Central Asia	1.1	7.1	18.3	23.8	24.0
Latin America and the Caribbean	63.7	73.8	70.8	76.0	78.2
Middle East and North Africa	9.3	5.7	5.0	5.0	5.5
South Asia	474.4	495.1	505.1	531.7	522.0
Sub-Saharan Africa	217.2	242.3	273.3	289.0	290.0
Total	1183.2	1276.4	1304.3	1190.6	1198.9
Excluding China	879.8	915.9	955.9	980.5	985.7

Source: World Bank (1999)

East and North Africa, 3.8 million people escaped poverty by 1996, reaching only 5.5 million in 1998. However in Sub-Sahara Africa, South Asia, and Latin America the number of poor people has actually increased, but with a moderate drop in the incidence of poverty. The Eastern Europe and Central Asia experienced dramatic increases in both the number of people living less than \$1 a day and incidence of poverty. The number of poor people increased from 1.1 million to 24 million during the period 1987-98. The incidence of poverty escalated from 0.2 percent to 5.1 percent during the same period. Figure 4.1

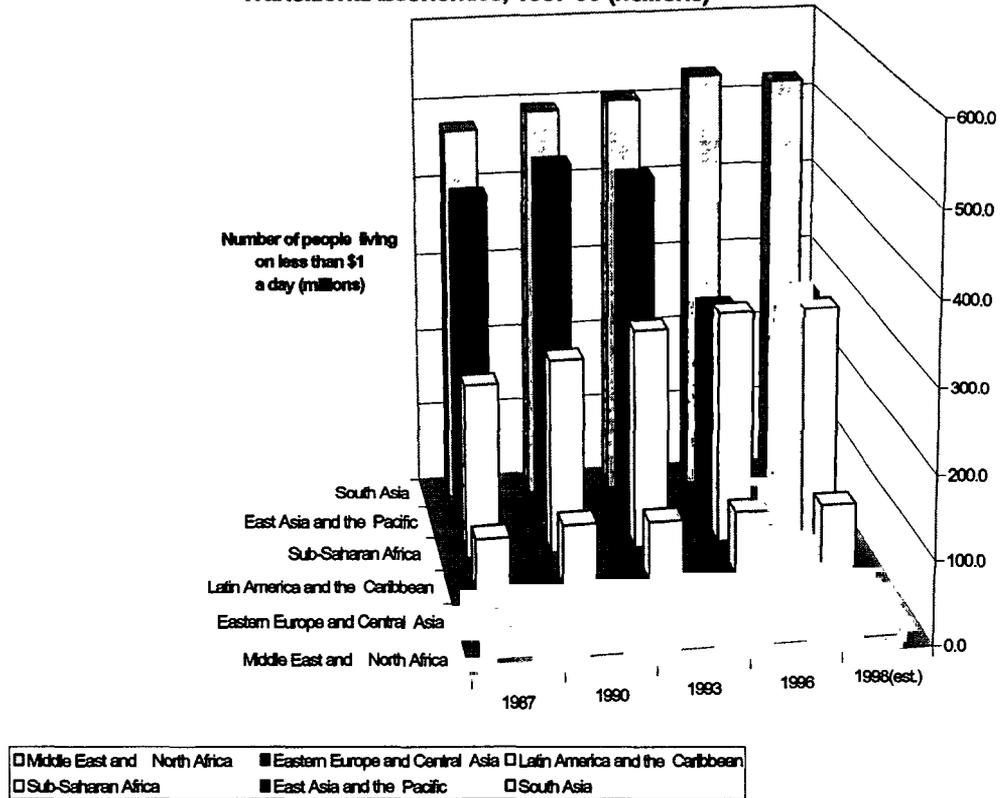
<sup>5</sup> DAC, *Progress Towards the International Development Goals 2000: A Better World For All*, 2000, Washington, DC.

<sup>6</sup> For more information, see the World Development Report 2000.

<sup>7</sup> The data is from household data. The figures for 1998 are preliminary estimates based on recent survey data.

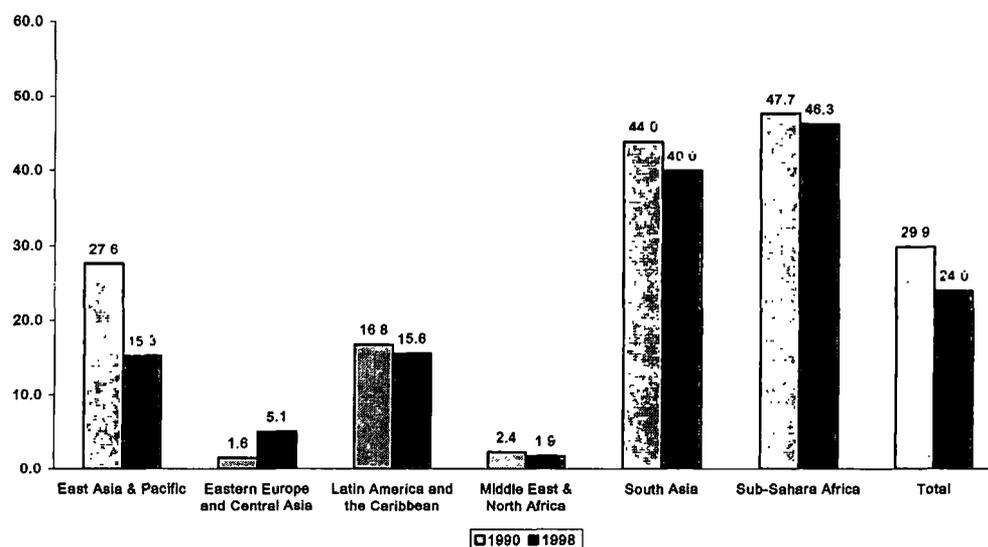
shows a graphical depiction of this change in poverty incidence in various regions of the world between 1987 to 1998.

**Figure 4.1 Population Living Below \$1 per Day in Developing and Transitional Economies, 1987-98 (millions)**



Source: World Bank (1999)

**Figure 4.2 Headcount Index in Developing and Transitional Economies, Selected Years, 1990 - 1998 (Percent)**



Source: World Bank (1999)

We also assessed the income poverty trends across and within countries during the 1990s using the head count ratio, and the income gap as the instruments of measurement<sup>8</sup>. The rapid population growth and/or ineffective poverty programs in many of the sample countries contributed to the slow decline and in some cases an increase in the numbers of rural poor. However, in most of these countries (China, Brazil, India and Morocco), the percentage of the rural population below the poverty line actually declined between 1990 and 1998 (figure 4.2).

Pakistan is a classic example of the effects of population growth. The proportion of the rural population below the poverty line declined by 33 percent between the 1960s and the 1980s but slightly increased in the 1990s. Rural population as a percentage of the total population also declined. Both these factors were outweighed by a rapid growth in population in Pakistan during these periods. The number of rural poor increased by several million during this period. Poverty alleviation strategies in Pakistan have sought to improve the productivity and growth of the agricultural sector, with emphasis on the rain-fed Barani areas. Priority has also been given to developing rural cottage industries to strengthening rural social services and to investment in rural infrastructure. These efforts have not yet been able to reduce the absolute numbers of rural poor given an annual rate of population growth of over three percent and persistent and increasing inequality in the distribution of land.

<sup>8</sup> The head-count ratio compares income and/or consumption of households to an objectively defined poverty line. If the household falls short of this level it is classed as poor. Poor households can then be ranked according to their income gap from the poverty line, and intervention measures designed differently for households along the poverty scale

India has taken several measures to reduce population growth and rural poverty. Strategies have included integrated rural development program and targeted employment generation schemes. The most important of these are the National Rural Employment Development Program, the Rural Landless Employment Guarantee Program, the Food-for-Work Program and the Drought-Prone Area Program. State governments have also initiated important programs such as the Employment Guarantee Scheme in Maharashtra. Specific programs for women include the Development of Women and Children in Rural Areas. Attention has also been given to tribal populations - a particularly disadvantaged group in rural areas; specific regions have been designated as tribal areas and a Tribal Sector Plan has been drawn up. However, both the rural population and the poverty base are large. Despite a decline in the percentage of the rural population below the poverty line, the absolute numbers of the rural poor increased by 38 million between the 1960s and the 1980s, and by about 20 million or so by 1998, chiefly because efforts to reduce the rate of growth of population have been only partially successful. The annual rate of population growth declined from 2.3 percent in the period 1965-1980 to a current estimated level of slightly above 2 percent. There are regional variations in the incidence of rural poverty in India (Figure 4.3). In general, a reduction in rural poverty has been associated with rapid agricultural growth.

In many countries in Latin America, rural poverty has become urban poverty through migration of the rural poor to urban areas. Brazil is one example. The decline in the proportion of the rural population below the poverty line parallels a fall in the proportion of the total population in rural areas as well as a decline in numbers. There is also evidence that urban poverty has increased. In Argentina, on the other hand, the incidence of rural poverty has increased but the absolute numbers of rural poor have declined because the rural population itself decreased between 1995 and 1999 both in relative and absolute terms.

There are also countries in which both the share of rural population below the poverty line, and the absolute numbers of rural poor, seem to have increased during the last decade. Noteworthy amongst these are Colombia and Indonesia. In the case of Colombia, there is evidence showing an increase in rural poverty. This could be attributed to the reduction in the production of cash crops other than coffee by smallholders and the rural poor that earlier have contributed to an apparent decrease in rural poverty. Also, the impact of integrated rural development programs that generated rural employment and a rise in productivity seems to have declined.

In Indonesia, in the 1960's through the 1980's agricultural development was given a dominant role in each of the five-year development plans (REPELITAs), with particular emphasis on the growth of food production (rice) through the introduction of new high-yielding varieties (HYVs). This was complemented by massive investment in rural infrastructure under the INPRES (presidential grants) program, which provided basic social services, physical facilities and added income opportunities to low-income groups on the periphery. But these efforts seem to have dwindled substantially in the late 1990's due to both economic and political difficulties leading to increases in rural poverty.

The empirical evidence does suggest that the higher a country's GDP per capita is, the lower its incidence of poverty. This is not necessarily true in some of the sample countries. For example, China and Pakistan have lower GNP per capita than Peru but do have lower incidence of poverty. An analysis of the change in the incidence of poverty between 1988 and the mid 1990s (using the most recent survey data, where available), shows interesting results. It can be seen from the table 4.3 that the greatest reduction in the incidence of poverty occurred in the Dominican Republic (48.2%) followed respectively by Bangladesh (46.2%), Brazil (40.4%), Lao PDR (32.2%), Sri Lanka (31.9%), Uganda (31.8%), Paraguay (21.5%), Morocco (17.8%), Ghana (19.7%), El Salvador (19.3%), Ecuador (18.0%), and Nepal (17.0%). The countries that registered increase in the incidence of poverty include the following countries: Nicaragua (57.1%), Niger (31.0%), Madagascar (27.0%), Nigeria (16.8%), Sierra Leone (11%), Pakistan (7.9%), Tunisia (6.6%). In countries like India, Indonesia, Kenya, Zambia, China, Peru, and Honduras

there were modest declines in the incidence of poverty in the range 4% -10%. The above observations are based on available data and do not shed any light on the underlying causes. Whether the observed decline in the incidence of poverty was primarily due to economic growth, or on account of the reduction in inequalities in income distribution, will have to await the decomposition on the incidence of poverty.

*Human Assets.* The trends in human assets vary widely among the sample countries, irrespective of their per capita income. Even where resources are limited, some governments have been more sensitive than others in providing basic education and health services which, in turn, translates into declines in the rates of child mortality and adult illiteracy. The data also shows that the low income countries generally fared worse than the middle income countries, with the possible exception of Kenya, in terms of building up the human assets in the rural areas. In general, the human assets trends show a modest overall improvement (Table 4.4). Specifically, there has been a ubiquitous decline in the child mortality and adult illiteracy rate for almost all the countries for the period 1990-1998/9.

The data reflects that illiteracy rates declined in the 1990s, countries except in Morocco. However, the illiteracy rates in five countries still remain above 50% (Ethiopia about 64%, Bangladesh 60%, Cote D'Ivoire 56%, Pakistan 56%, Morocco 53%, respectively).

The trends in child mortality also reveal a modest improvement (see table 4.4). There was a decline in most of the countries except in Cote D'Ivoire, Kenya, Nigeria and Pakistan. However, six countries have child mortality of 100 or more per 1,000 births. All of the countries, except Pakistan, are in the sub-Saharan Africa. The high incidence of child mortality in Africa could be attributable to the prevalence of HIV/AIDS and inadequate health care services.

Life expectancy figures also reflect a modest improvement – with a 1.16 % increase in life expectancy on the average over the period 1990-1998. However, some countries witnessed a decline in life expectancy ratios – these include Ethiopia, Kazakhstan, Kenya, Romania, Uganda and Ukraine. The biggest decline of 11% occurred in Kenya followed by Ethiopia (4.4%), Kazakhstan (4.4%), Uganda (4.3%), and Ukraine (4.3%). The decline in life expectancy, especially in Africa, could be attributable to high incidence of HIV/AIDS during this period. Clearly, the HIV/AIDS situation and its impact on life expectancy in sub-Saharan Africa remains a matter of great concern. Data on all indicators mentioned here pertains to total population, not only the rural. For rural areas the situation is likely to be much worse.

Table 4.3 Rural Poverty in Selected Developing Economies

Country	Most Recent Survey Year (MR)	Rural Population	Percent of Population Below Poverty Line		
		(% of total population)	Rural	Rural 1988	Change (1988-MR)**
Algeria	1995	42.3	30.3	25	5.3
Bangladesh	1995-96	79.7	39.8	86	-46.2
Brazil	1990	25.7	32.6	73	-40.4
China	1998	68.8	4.6	14	-9.4
Colombia	1992	29.7	31.2	45	-13.8
Dominican Republic	1992	40.5	29.8	78	-48.2
Ecuador	1994	41.1	47	65	-18
Egypt	1995-96	55.3	23.3	25	-1.7
El Salvador	1992	56.6	55.7	75	-19.3
Ethiopia	1994-97	...	45.9	43	2.9
Ghana	1992	65.2	34.3	54	-19.7
Honduras	1993	54.7	51	55	-4
India	1994	74.7	36.7	42	-5.3
Indonesia	1998	61.3	22	27	-5
Kenya	1992	74.4	46.4	55	-8.6
Lao PDR	1993	79.5	53	85	-32
Lesotho	1993	77.8	53.9	55	-1.1
Madagascar	1993-94	74.8	77	50	27
Morocco	1998-99	45	27.2	45	-17.8
Nepal	1995-96	88	44	61	-17
Nicaragua	1993	45.2	76.1	19	57.1
Niger	1989-93	83.8	66	35	31
Nigeria	1996 <sup>1</sup>	59.6	67.8	51	16.8
Pakistan	1991	67.6	36.9	29	7.9
Panama	1997	44.4	64.9	65	-0.1
Paraguay	1991	51.2	28.5	50	-21.5
Peru	1997	28.3	64.7	75	-10.3
Philippines	1997	44.2	51.2	64	-12.8
Sierra Leone	1989	71.8	76	65	11
Sri Lanka	1990-1991	78.8	38.1	70	-31.9
Tunisia	1990	41.5	21.6	15	6.6
Uganda <sup>1</sup>	1997	86.7	48.2	80	-31.8
Yemen	1992	77	19.2	30	-10.8
Zambia <sup>1</sup>	1996	60.9	74.9	80	-5.1
Zimbabwe <sup>1</sup>	1996	67.9	62.8	60	2.8

**Table 4.3 Rural Poverty in Selected Developing Economies**

Country	Most Recent Survey Year (MR)	Rural Population		Percent of Population Below Poverty Line	
		(% of total population)	Rural	Rural 1988	Change (1988-MR)**

Note: Comparisons between countries are not valid.

<sup>1</sup> Poverty line data is based on nutrition-based poverty lines.

\* Calculated from available data.

\*\* - decrease in poverty; + increase in poverty

Sources: World Development Indicators (WDI), 2000, World Development Report, 2000/2001, IFAD (1992)

**Table 4.4. Human Assets Trends for the 24 Selected Countries**

Country	Life Expectancy at birth (years)			Child mortality under five (per 1000 live births)			Adult Illiteracy rate (percent)		
			% change			% change			% change
	1990	1998	1990-98	1990	1999	1990-99	1990	1998	1990-98
Algeria	67	71	6	55	39	-41	43	34.5	-20
Argentina	72	73	1	28	22	-27	5	3.3	-34
Bangladesh	55	59	7	136	89	-53	65	59.9	-8
Brazil	65	67	3	58	40	-45	19	15.5	-18
China	69	70	1	47	37	-27	27	17.2	-36
Colombia	69	70	1	40	28	-43	13	8.8	-32
Cote-d'Ivoire	50	46	-8	150	180	17	46	55.5	21
Egypt	63	67	6	85	61	-39	52	46.3	-11
Ethiopia	45	43	-4	190	180	-6	72	63.7	-12
Ghana	57	60	5	127	96	24	40	30.9	-23
India	60	63	5	112	90	-24	52	44.3	-15
Indonesia	62	65	5	83	52	-60	23	14.3	-38
Kazakhstan	68	65	-4	34	28	-21	...	...	...
Kenya	57	51	-11	97	118	18	31	19.5	-37
Mexico	70	72	3	46	36	-28	13	9.2	-29
Morocco	63	67	6	86	62	-39	51	52.9	4
Nigeria	49	53	8	136	151	10	49	38.9	-21
Pakistan	59	62	5	90	138	35	65	56	-14
Peru	66	69	5	75	48	-56	15	10.8	-28
Philippines	65	69	6	62	41	-51	10	5.2	-48
Romania	70	69	-1	36	24	-50	3	2	-33
Russia	69	67	-3	21	20	-5	1	1	0
Uganda	47	42	-11	162	162	0	52	35	-33
Ukraine	70	67	-4	...	17	...	-1	-	-

Source: World Development Indicators database

In spite of the modest gains made by the rural poor in building their human assets and improving their access to basic services, they still lag behind the urban poor (see table 4.5).

In general less than 50 % of the rural population in the 24 countries had access to sanitation services during the period 1990-95. About the same situation prevailed with respect to the availability of safe water. From a rural/urban comparative standpoint, on the average the rural population that had access to sanitation services constituted only 30% of the urban population [with access to sanitation services] during 1990-1995. Also, on average the rural population that had access to safe water was about 40 % of the urban population with a similar access during 1990-1995. In the same way the average ratio of the rural to urban population with access to basic health services was about 26: 100. All in all, therefore, only about one third of the rural population as a proportion of urban population has access to sanitation/ safe water/ health services. The rural/urban differences in these services are on the extreme end in the cases of Ethiopia and Ghana in respect of the provision of safe water. For Bangladesh, China, Ethiopia, and India access to the basic sanitation services is widely disparate between urban and rural areas, while in Argentina, Cote d'Ivoire, Ghana, and Pakistan access to basic health services is much greater in urban areas than in rural areas. In many cases the rural/urban differences seem to be significant irrespective of the level of per capita GNP.

**Table 4.5. Rural-Urban Differences in Access to Health Related Services for 24 Selected Countries**

Country	Safe Water		Safe Water		Sanitation		Sanitation		Health Services	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
	1988-93	1988-93	2000	2000	1988-93	1988-93	2000	2000	1985-95	1985-95
Algeria	55	85	88	98	60	96	30	90	95	100
Argentina	29	77	30	85	37	73	48	89	21	80
Bangladesh	85	82	97	99	26	63	30	82	...	..
Brazil	61	95	54	95	32	84	40	85	...	...
China	60	99	66	94	3	58	24	68	89	...
Colombia	82	87	73	98	18	84	51	97	..	...
Cote-d'Ivoire	81	70	65	90	62	59	...	..	11	61
Egypt	86	95	94	96	26	80	91	98	99	100
Ethiopia	19	91	13	77	7	97	6	58	...	...
Ghana	35	93	49	87	32	64	64	62	45	92
India	78	85	86	100	12	62	14	73	80	100
Indonesia	43	68	65	92	36	64	52	87	...	...
Kazakhstan	...	...	82	98	...	...	98	100	...	...
Kenya	43	74	31	87	35	69	81	96	40	...
Mexico	66	94	63	94	17	70	32	87	60	80
Morocco	14	92	58	100	38	95	42	100	50	100
Nigeria	30	81	39	81	30	40	45	85	40	85
Pakistan	50	85	84	96	17	60	42	94	35	99
Peru	18	75	51	87	25	58	40	95	...	...
Philippines	79	85	80	92	62	79	71	92	74	77
Romania	...	...	16	91	...	...	10	86	...	...
Russia	...	...	96	100	...	...	...	...	...	...
Uganda	28	58	46	72	52	94	72	96	42	99
Ukraine	...	...	...	...	...	...	...	...	...	...

Source: UNICEF database (2000) and Human Development Report (UNDP, 1996)

*Empowerment – Gender Equity.* The progress women have made to address gender bias and inequality in low income economies varies widely among countries. Table 4.6 reflects the achievements of women in critical areas of life expectancy, educational attainment and income. However, the data also reflects the existence of gender inequality and disparity in the sample countries. Although women have made modest progress in the 1990s in all of the above three categories, they still lag behind men, with the possible exception of life expectancy. The disparities, especially in educational attainment and earned income, among men and women remain significant. In most of the 24 countries women are consistently worse off than men in both categories. For example, in Algeria a woman on average earns 19 cents for every 81 cents by a man. The educational attainment is not much different. In 1997, only 47.7% of women can read or write as compared to about 77% of men. Many other countries do not fare much better. The issues of gender inequality require continued international attention.

**Table 4.6. Gender- Equity Trends**

Country	Life expectancy at birth (years)				Adult literacy rate (%)				Combined first-secondary-and third gross enrollment ratio (%)				Share of earned income (%)	
	Female		Male		Female		Male		Female		Male		Female	Male
	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1995		
Algeria	69.35	66.8	70.3	67.5	49.05	73.9	47.7	72.7	62	66.7	64	71	19.1	80.9
Argentina	76.23	69.1	76.8	69.7	96.19	96.2	96.5	96.6	80.62	68.7	82	77	22.1	77.9
Bangladesh	57.01	56.9	52.8	58.1	26.14	49.4	27.4	49.9	30.9	39.6	30	40	23.081	76.9
Brazil	70.72	62.8	71	63.1	83.21	83.3	89.3	84.1	71.8	69.1	77	82	29.267	70.7
China	71.28	67.3	72	67.9	72.72	89.9	74.5	90.8	61.54	64.1	67	71	38.058	61.9
Colombia	73.07	67.7	74.3	67.3	91.38	91.2	90.8	91	70.66	62.7	71	70	33.489	66.5
Cote-d'Ivoire	53.09	50.7	47.3	46.2	29.98	49.9	33.7	51	30.05	43.6	32	48	25.791	74.2
Egypt	66.05	63.6	67.9	64.7	38.81	63.6	40.5	64.7	63.36	68.9	66	77	25.034	75
Etiopia	50.31	47.2	44.3	42.4	25.3	45.5	29.2	41.5	15.9	24.1	18	31	33.263	66.7
Ghana	58.85	55.2	61.8	58.3	53.55	75.9	56.5	76.5	38.07	48.6	37	47	43.296	56.7
India	61.76	61.4	62.9	62.3	37.69	65.5	39.4	66.7	46.46	60.1	47	62	25.366	74.6
Indonesia	65.75	62.2	67	63.3	78	89.6	79.5	90.6	59.1	61.3	61	68	32.98	67
Kazakhstan	72.34	62.6	72.5	62.8	99	99	99	99	75	71	79	74	39.279	60.7
Kenya	55.07	52.5	53	51.1	70.02	86.3	71.8	86.9	50.94	51.8	49	50	41.785	58.2
México	75.12	69.2	75.5	69.5	87.41	91.8	87.9	92.3	66.14	64	69	71	25.734	74.3
Morocco	67.4	63.9	68.5	64.8	30.97	56.6	32.7	59.3	40.63	50.7	42	55	27.801	72.2
Nigeria	53.03	49.8	51.5	48.7	47.3	67.3	50.8	68.5	43.67	53.9	48	61	30.014	70
Pakistan	63.85	61.8	65.1	62.9	24.41	50	25.4	55.2	27.02	53.1	28	56	20.562	79.4
Peru	70.19	65.3	70.9	65.9	82.96	94.5	98.7	93.9	76.13	72	77	80	23.801	76.2
Philippines	69.25	65.6	70.2	66.5	94.32	95	94.3	94.8	81.78	70.9	85	80	34.968	65
Romania	73.44	66	73.9	66.2	97	99	97.7	98.9	62	62	68	68	37.489	62.5
Russia	72.08	59.2	72.8	60.6	99	99	98.8	99	82	75	80	74	41.309	58.7
Uganda	41.44	39.6	40.4	38.9	50.18	73.7	53	75.2	34.16	41.9	36	44	40.562	59.4
Ukraine	73.83	63.1	73.7	63.8	98	98	...	...	78	75	80	74	42.376	57.6

Sources: UNDP database, 1996 and 1999

*Food Availability Trends.* We have already argued that poverty is the principal cause of hunger. If the poverty line is derived on the basis of a calorie input norm,<sup>9</sup> it can be taken to mean an estimate of persons who are hungry. While it is true that calorie-intake-norm based poverty lines and income based poverty lines are not exactly coincident representations, yet the fact remains that the two are a very close configuration of the same phenomenon. As such, in the absence of data for nutrition based poverty lines for all countries, we can use the concept of an income-based poverty line as a fair approximation of the estimate of persons who are hungry. Table 1.1 presents estimates of percentage of population below poverty line. Clearly the data indicates substantial levels of hunger (measured in terms of the head count proportion of poverty). Also it can be seen that with the exception of few countries, the proportion of rural households who go to bed at night hungry are disproportionately larger than that of the urban population. In the case of Uganda, the rural households that suffer different degrees of hunger constitute over 90% of the total rural population. Bangladesh and Kenya have more than 80% of the hungry population concentrated in the rural areas. There is no question therefore that the rural areas are the primary crucible of hunger and poverty in many developing countries.

**Table 4.7 Food Variability Trends (1990-1998)**

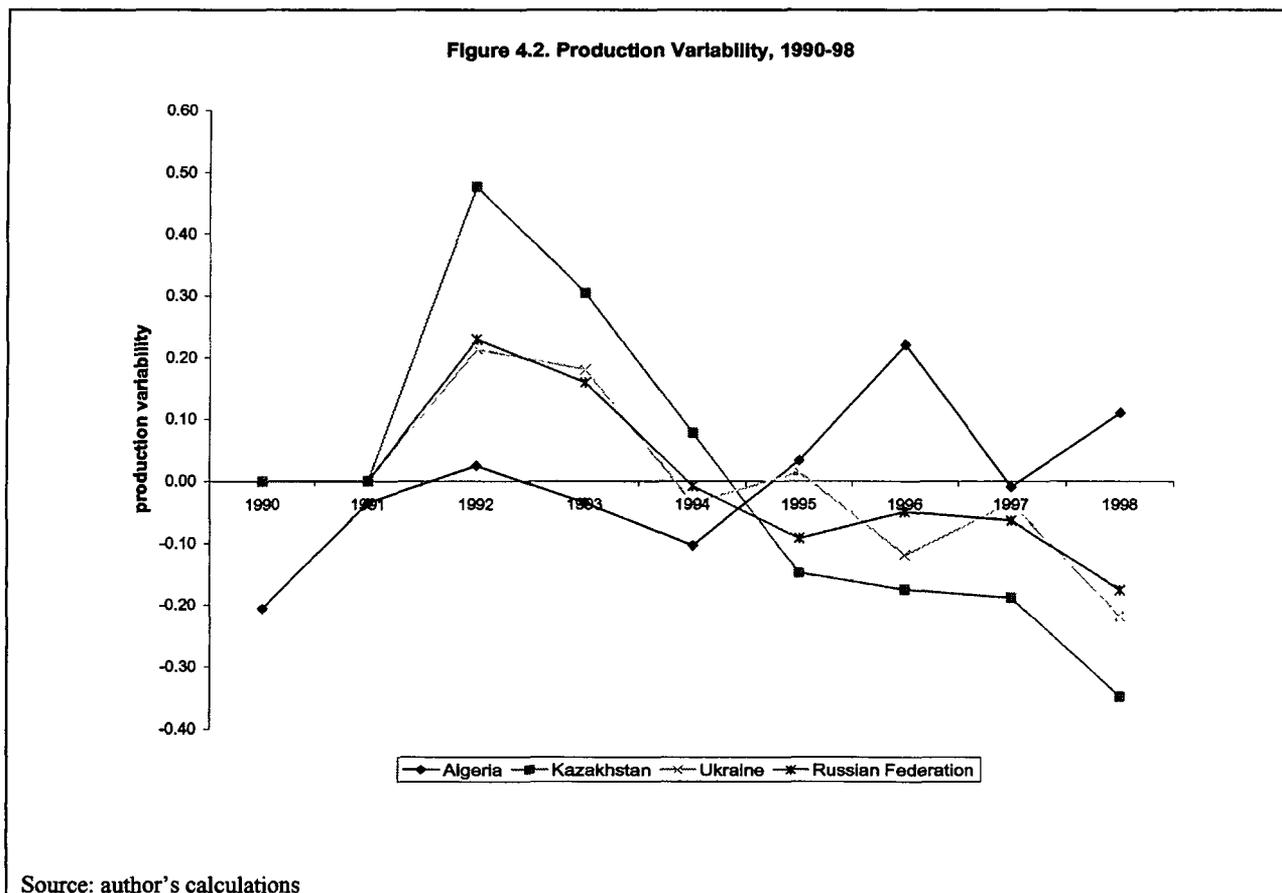
Country	1990	1991	1992	1993	1994	1995	1996	1997	1998
Algeria	-0.21	-0.04	0.02	-0.04	-0.10	0.03	0.22	-0.01	0.11
Argentina	-0.09	-0.07	-0.07	-0.09	-0.02	0.03	0.06	0.08	0.17
Bangladesh	-0.05	-0.03	-0.01	-0.01	-0.05	-0.01	0.05	0.05	0.06
Brazil	-0.14	-0.11	-0.06	-0.05	-0.01	0.04	0.07	0.13	0.13
China	-0.21	-0.20	-0.14	-0.06	0.00	0.07	0.13	0.20	0.21
Colombia	-0.03	-0.02	-0.07	-0.03	-0.01	0.05	0.04	0.02	0.05
Egypt	-0.16	-0.13	-0.09	-0.07	-0.06	0.03	0.13	0.17	0.17
Ethiopia	..	..	..	-0.13	-0.13	-0.04	0.11	0.12	0.07
Ghana	-0.35	-0.06	-0.07	-0.01	-0.05	0.08	0.11	0.19	0.15
India	-0.10	-0.09	-0.06	-0.03	0.01	0.04	0.06	0.09	0.08
Indonesia	-0.11	-0.10	-0.02	-0.01	0.00	0.06	0.08	0.06	0.05
Cote d'Ivoire	-0.12	-0.11	-0.09	-0.05	-0.05	0.08	0.11	0.14	0.10
Kazakhstan	..	..	0.48	0.30	0.08	-0.15	-0.17	-0.19	-0.35
Kenya	-0.01	-0.01	-0.03	-0.08	0.01	0.01	0.03	0.05	0.04
Mexico	-0.11	-0.07	-0.06	-0.04	0.01	0.08	0.04	0.04	0.12
Morocco	-0.03	0.11	-0.15	-0.14	0.11	-0.25	0.19	0.01	0.14
Niger	-0.23	-0.01	-0.01	-0.11	0.08	-0.03	0.15	0.07	0.10
Pakistan	-0.16	-0.13	-0.11	-0.05	-0.02	0.06	0.10	0.13	0.19
Peru	-0.19	-0.15	-0.18	-0.13	0.00	0.07	0.14	0.21	0.22
Philippines	-0.09	-0.13	-0.10	-0.02	0.01	0.05	0.09	0.12	0.09
Romania	0.00	0.05	-0.17	0.05	0.02	0.05	-0.03	0.05	0.00
Russia	..	..	0.23	0.16	-0.01	-0.09	-0.05	-0.06	-0.18
Uganda	-0.05	-0.03	-0.02	0.03	0.01	0.04	-0.03	0.00	0.06
Ukraine	..	..	0.21	0.18	-0.04	0.01	-0.12	-0.04	-0.22

Production variability = standard deviation of the % deviation from the mean =  $(x-x^*)/x^*$  where x is the annual Food Production Index<sup>1</sup> observation and x\* is the mean

Source: World Bank (1999)

<sup>9</sup> Strictly speaking, the calorie input norm of the poverty line will vary from country to country depending upon the nutritional requirements and the metabolic levels. For example, the poverty line in India is defined as the total per capita consumption expenditure.

At the national level, an aspect of food security would be production, trade, and availability of food grains. Table 4.7 shows the variations trends over time in food production in the 24 countries. It is obvious that production is variable and this variability leads to vulnerability and hence to hunger. An analysis of data on food production variability in the 24 countries shows a pattern of large variations in Algeria, Kazakhstan, Uganda, and Ukraine (see table 4.7). For Kazakhstan, Russia, and Ukraine, the variability is more on its downward side, which makes these countries even more at risk (figure 4.2). The variability across countries over the period 1990-98 can be gauged by the food production index. As can be seen from table 4.7, there has been, in general, an improvement in the production index of most countries over the period 1990-98. However, a pronounced decline in the production index is concentrated in the transitional economics of Eastern Europe (Kazakhstan, Russia, and Ukraine).



The degree of food availability is also provided by the absolute level of the per capita daily energy supply (DES) and the per capita daily energy supply (DES) as a percentage of the requirements (see Table 4.8). In the sample countries Bangladesh, Kenya, Peru, and Uganda stand out as the most undernourished, with an average calorie in-take per capita below the average benchmark of 2,300 calories stipulated as the minimum requirement by the FAO. Also some of the most populous countries including Egypt, India, Pakistan, and Philippines are on the borderline.

**Table 4.8 Per Capita Dietary Supply (DES)**

<i>Countries</i>	<i>Per capita DES (Calories) 1990</i>	<i>Per capita DES (Calories) 1998</i>	<i>Per capita DES (growth) 1990-1998</i>	<i>Calories as a percent of requirements * 1998</i>
Algeria	2910	2990	2.75	130.00
Argentina	2970	3120	5.05	135.65
Bangladesh	2060	2040	-0.97	88.70
Brazil	2780	2810	1.08	122.17
China	2650	2710	2.26	117.83
Colombia	2590	2700	4.25	117.39
Cote d'Ivoire	2510	2440	-2.79	106.09
Egypt	3150	3280	4.13	142.61
Ethiopia				
Ghana	2100	2510	19.52	109.13
India	2350	2390	1.70	103.91
Indonesia	2570	2700	5.06	117.39
Kazakhstan		3040		132.17
Kenya	1930	1960	1.55	85.22
Mexico	3080	3140	1.95	136.52
Morocco	3110	3120	0.32	135.65
Nigeria	2310	2540	9.96	110.43
Pakistan	2380	2490	4.62	108.26
Peru	2030	2200	8.37	95.65
Philippines	2350	2380	1.28	103.48
Romania	3160	3170	0.32	137.83
Russia		2990		130.00
Uganda	2290	2230	-2.62	96.96
Ukraine		3020		131.30
<b>Averages</b>	<b>2564</b>	<b>2694</b>	<b>3.39</b>	<b>117.15</b>

\* 2,300 is the average calorie requirement - FAO

Source: Rural Development Indicators Handbook, 2000

In general, there has been an improvement in both the calorie intake and DES in the 24 samples of countries during the period 1990 to 1998. However, a moderate decline in the calories is depicted in Uganda and Bangladesh. Examining the growth of per capita DES, three of the sample countries, namely Bangladesh, Cote d'Ivoire, and Uganda show a distinct decline.

The information contained in the Tables 4.8 and 4.9 clearly indicate that increases in GNP per capita are associated with improvement in the DES per capita as a percentage of requirements. In this regard, one plausible reason could be the fact that countries with a higher GNP per capita are likely to have a greater capacity to import food when and as needed. However, there are some cases of pronounced incongruency. For instance, Ghana, Nigeria, Peru, and Pakistan register significantly higher per capita growth rates of DES but have had low growth rates of GNP per capita. Such exceptions in the pattern may be attributable to the fact that while there was significant growth in the food production; the population grew even more rapidly. On the other hand, there are countries like Bangladesh, Cote, d'Ivoire, and Uganda where the per capita GNP growth rate was positive but the DES per capita growth remained negative. These cases may be the outcome of a combination of factors such as variation in

imports and the fact that high GNP per capita is related to the small high-income, expatriate type sector whereas the DES refers to the majority of the population with a lower income.

**Table 4.9 Growth of per capita DES and Food Production Index, 1990-98**

<i>Countries</i>	<i>GNP per Capita Annual Growth Rate, 1990-98 (percent)</i>	<i>Per capita DES (annual growth) 1990-1998</i>	<i>Food Production Index (1989-1991) 1990-1998</i>
Algeria	-1.11	2.75	112
Argentina	4.22	5.05	119
Bangladesh	3.44	-0.97	106
Brazil	0.00	1.08	114
China	1.56	2.26	130
Colombia	8.56	4.25	107
Cote d'Ivoire	0.78	-2.79	114
Egypt	4.33	4.13	122
Ethiopia	3.33		
Ghana	1.44	19.52	113
India	5.56	1.70	114
Indonesia	5.33	5.06	110
Kazakhstan	-5.44		80
Kenya	-0.33	1.55	103
México	1.67	1.95	114
Morocco	1.22	0.32	102
Nigeria	1.67	9.96	118
Pakistan	1.78	4.62	121
Peru	2.89	8.37	120
Philippines	1.00	1.28	115
Romania	-2.78	0.32	95
Russia	-6.22		74
Uganda	3.67	-2.62	107
Ukraine	-9.44		60
<b>Averages</b>	<b>1.13</b>	<b>3.39</b>	<b>107.15</b>

\* 2,300 is the average calorie requirement

Sources: Rural Development Indicators Handbook, 2000, World Development Indicators, 2000



## 5. Monitoring Rural Poverty

In previous sections this paper discussed who the rural poor are and what challenges they face (Chapter 2), the characteristics of rural poverty (Chapter 3), and rural poverty trends in the 1990s (Chapter 4). The paper has established that poverty is more pervasive in rural than in urban areas. Not only is the incidence of income poverty higher in rural areas but the non-income poverty (human and physical assets, gender inequality and food insecurity) is also worse in rural areas. It is equally evident from the discussions in Chapter 4 that rural poverty trends in the 1990s did not show any demonstrative decline. This chapter will focus on the importance of monitoring rural poverty, setting baseline and targets, proposing choice of indicators, and discussing measurement issues and data problems.

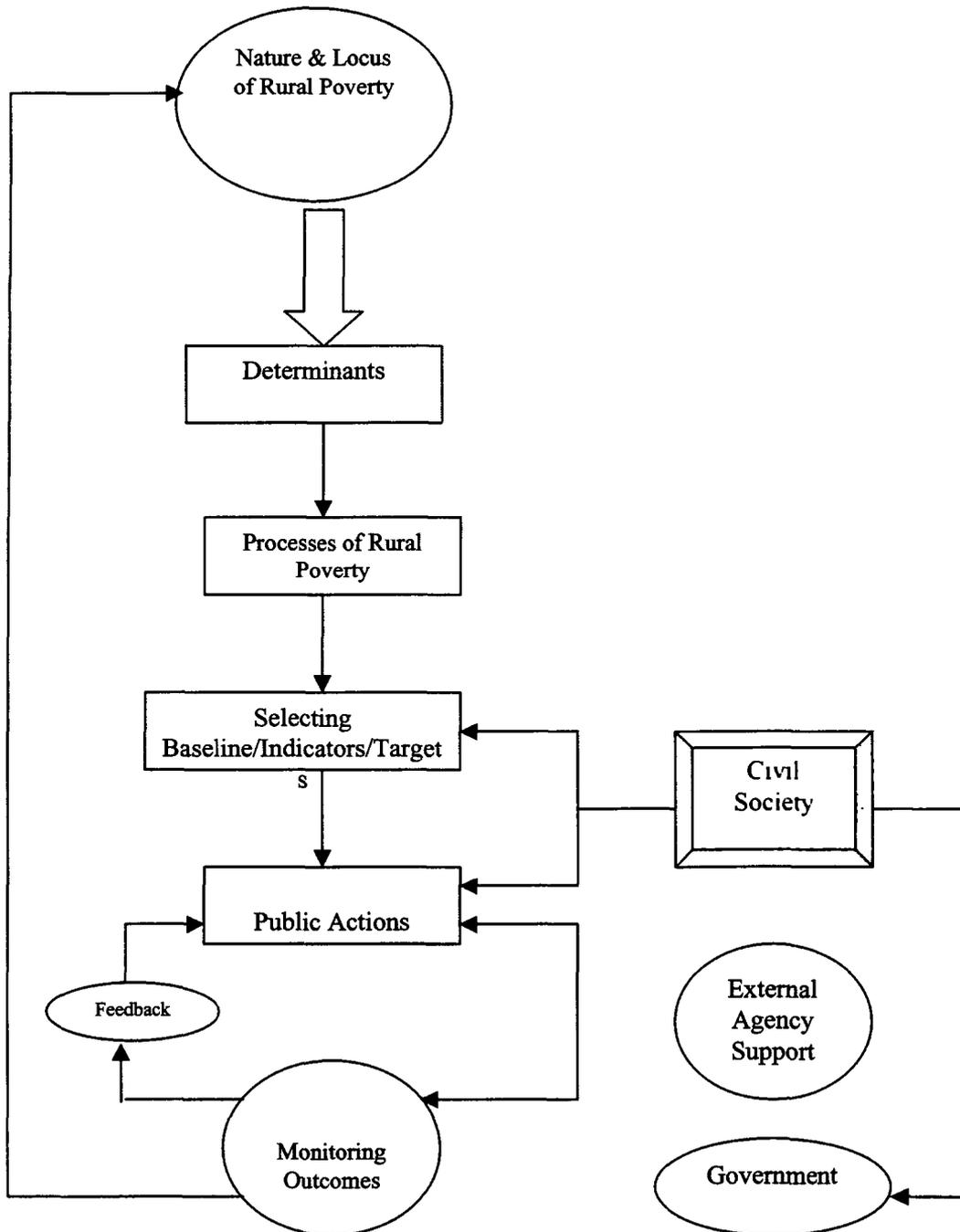
*The Need and Importance of Monitoring.* Many governments of low income countries recognize the challenges of rural poverty and are already preparing and/or implementing poverty reduction strategies. In addition, international development agencies, like the World Bank, are putting greater emphasis on monitoring the impact of their supported poverty reduction programs. It is the necessary first step which should lead to a system where the countries and their development partners would engage in continuous measuring, monitoring and benchmarking progress toward agreed upon poverty goals. It is also important in assessing the impact of poverty programs and how they are reaching the intended beneficiaries of the countries' poorest citizens, especially the rural poor.

The importance of monitoring the performance of poverty programs is well recognized in many low income countries. Most of these countries, in the context of developing their poverty reduction strategies and related poverty programs have come up with their own set of indicators or have adopted international development benchmarks to monitor performance. This is because it provides them with essential inputs to periodically assess their progress, or lack thereof, towards reducing poverty. However, in this case, assessments of progress in reducing rural poverty, should be based on clear monitorable benchmarks. Furthermore, the possibility of success in achieving the intended results of any rural poverty reduction program in the stipulated time period can be greatly increased if its progress is monitored at various stages in its implementation. A continuous monitoring of the poverty impact of any poverty reduction program at its beginning, during the course of implementation, and at the time of completion, would be required.

There are at least four reasons why a country would like to engage in continuous monitoring of progress, or lack thereof, of its rural poverty reduction efforts. Monitoring of its poverty reduction program will: (i) inform its citizens about the current state of affairs, so that they may debate priorities more clearly, judge trade-offs more rationally and hold policy makers more accountable; (ii) promote transparent policy-making by civil servants; (iii) inform donors who have committed resources to reducing poverty; and (iv) helps in setting feasible poverty reduction targets for the future. Furthermore, it guides the policy makers and strengthens policy making by making it more realistic since it will be more evidence-based. It also provides a yardstick of accountability of public agencies and the policy makers. Public trust can best be achieved through improved public performance, and this requires an assessment system that serves to improve public performance. Monitoring is also critical from the standpoint of coordinating the different projects or programs so that the interdependencies and synergies among the different targets are tapped to the fullest. For example, establishing a health system without providing clean water or the sewerage system would not accomplish much. Similarly, poverty reduction programs that focus on building up human assets by constructing schools in rural areas with communal help but fail to serve three-fourths of the school-age children because of lack access to the schools (lack of tracks/roads) will not likely be effective in achieving its targets. As a matter of fact, it is only through regular monitoring and assessment

of the impact of poverty program design and implementation, including making necessary adjustments, that such a program will more likely benefit the poor (Okidegbe, 2000).

**Figure 5.1. Rural Poverty and Outcome Monitoring to Enhance Poverty Reduction Impact**



Source: author

Systematic monitoring of the progress of broad-based rural development requires a core set of indicators to measure the multiple aspects of rural development. Ideally, it also requires a composite indicator that policymakers and development practitioners can use to assess the performance of a country against its own goals or in relation to other countries within the same region or income group.

In addition to what the low income countries are doing, many multilateral development institutions, especially the World Bank, are beginning to use the international development goals, key indicators of economic and social development which enjoy global consensus, to measure the impact of their support. Because they are measurable, the goals can help in identifying where progress is exceeding expectations or falling behind.<sup>10</sup> The goals provide a unique opportunity for coordinating efforts and aligning forces of a diverse range of development partners to maximize the impact on poverty reduction. Adopting the goals, however, does not tell us how to achieve them. That will require a concerted effort by governments, donors and multilateral institutions to identify the links between public action and the goals, place them in a local context, and develop intermediate indicators of progress to guide policy choices.

*Rural Poverty Baseline and Targets.* The five aspects of poverty cover a host of interlocking dimensions that trap significant proportions of the rural population in poverty. The approach to monitoring and evaluation starts with an understanding of the nature and locus of poverty in the country and an analysis of the determinants, including the constraints and processes to be undertaken. In light of that the baseline, outcome indicators and targets are selected. This serves as the basis upon which alternative public actions can be monitored and evaluated against the likely impact on poverty reduction. The approach is dynamic in the sense that the results of the outcome monitoring are fed back into the ongoing design of public policy and action (see figure 5.1).

Once the indicators have been chosen, it is necessary to establish a baseline in relation to which targets can be set and future progress measured. In the case of income poverty, the baseline might include values of the headcount ratio and other standard poverty measures calculated from the most recent household survey. If there has been no survey for several years, the baseline can either be set retrospectively, or drawn in the present by projecting changes in poverty using the country's growth rate since the survey year with an assumed poverty reduction elasticity. Similarly for non income poverty (e.g. low human assets), one could establish the baseline by using the data from a recent Demographic Household Survey.

A target is a value which a specific indicator should attain by a particular date, e.g., reducing poverty incidence by half by 2015. Where possible, policy makers should focus on outcome targets. However, outcome target ranges could be set rather than point targets. While we advocate monitoring indicators at the rural level, it is worth pointing out that there are inherent dangers to setting disaggregated poverty reduction targets. This is because there could be causal relationship between national and rural indicators (rural indicators are sub-set of national indicators) and do affect the observed results. It may be useful to calculate rural poverty indices in spite of issues associated with indices (see the paragraph on measurement related to associated problems), so that if a national poverty reduction target is not being met, it is possible to trace where the problem lies. So, while all targets necessarily imply indicators, not all indicators require targets.

The selection of targets should be subject to at least two consistency checks: long-run poverty reduction goals and objectives defined within a Medium Term Expenditure Framework (MTEF). Checking for consistency between short and long-run targets requires governments to make explicit how they want to

---

<sup>10</sup> It should be noted that while the goals are set in terms of average performance, we also care about distribution within an indicator, i.e. how performance is changing for the most vulnerable in a society.

get from where they are now to their set date, including ensuring that their targets are consistent with targets set within the MTEF.

## The Choice of Indicators

The essential steps in monitoring rural poverty reduction are to choose indicators that cover different aspects of poverty, establish a baseline and set targets for poverty reduction within a given timeframe. The choice of indicators should be guided by reliability and cost effectiveness of collection. It is equally important to identify a small set of core indicators that can measure well different aspects of rural poverty and yield results that inform policy making. In selecting these indicators, attention has been focused on development outcome and consistency with the international development goals.

### *Indicators for Rural Well-being (Poverty Reduction)<sup>11</sup>*

#### **Outcome 1. Income Poverty Reduction**

- Population below the poverty line, % rural : (HCI – Rural)
- The income-gap ratio (the average percentage gap in income of poor households from the poverty line: rural)
- Incidence of rural poverty (% of the poor who live in rural areas) (%)

#### **Outcome 2. Physical Assets (Infrastructure and communication):**

- Rural roads (access to rural roads motorable year round) (%)
- Rural population with access to electricity (%)
- Rural population with access to telephones (%)
- Rural populations who own radios (%)

#### **Outcome 3. Human Assets:**

- Rural primary school enrollment (%)
- Rural child mortality rate (under five years) (%)
- Rural population with access to safe water (%)
- Rural population with access to sanitation (%)
- Rural population with access to health centers (%)

---

<sup>11</sup> For further discussion of the rural well-being indicators see Okidegbe, 2000).

**Outcome 4. Empowerment (Gender Equity):**

- Ratio of rural male to female primary school enrollment
- Ratio of rural adult male to female literacy rate
- Rural of rural male/female income ratio.

**Outcome 5. Vulnerability (Food security):**

- Food availability (metric tons)
- Food Production Index
- Per capita dietary energy supply (rural)
- Malnutrition prevalence (% of children under 5), rural

## Rural Poverty Monitoring Issues

Monitoring the progress, or lack thereof, of rural poverty reduction encompasses three main issues. First, rural poverty is a spatial phenomenon and one needs to know where the rural poor are in terms of location. One of the question one encounters is, what is rural? A simple rural/urban dichotomy is not sufficient but there is no one answer that that is generally accepted. In fact, almost every country has its own definition of what constitutes rural. This multiplicity of definitions make comparisons across countries difficult, if not impossible.

Measurement problems pose a serious another obstacle. The very fact that monitoring involves measuring the change in the level of poverty, it encounters with all sorts of measurement problems. The specific problems/issues in this context are discussed below from the point of view of the different indicators that are used for different aspects of poverty; and these problems are further compounded when the indicators are used to compute a composite index (see computation of Rural Score Card for rural poverty in Okidegbe 2000).

It should be noted that data on poverty suffer from many unavoidable conceptual and measurement problems. These are further compounded by the fact that the data are obtained from different sources, raising questions about the uniformity of methods of data collection. For example, in monitoring income poverty, one faces at least two basic problems. They relate to the definition of the *poverty* line which is derived from both a commodity bundle tied to the concept of a minimum requirement (calories and protein for food, and some notional minimum for non-food items), and the determination of an appropriate set of prices to be applied to individual commodities to calculate the poverty expenditure and income. Many questions arise in: (a) the selection of an acceptable criterion for the choice of the consumption basket, e.g., whose consumption -- the poor or the non-poor?; how to specify minimum requirements of non-food items?; what about the services provided by the state: education, health and other social and physical infrastructures? (b) the choice of representative item(s) within each group, a problem similar to (a), and one not easily resolved by a programming exercise of cost minimization; (c) the choice of appropriate prices to value the consumption bundle -- how to take into account location- or

class-based differences in the prices paid by consumers; (d) the definition of the *minimum nutritional requirement* - how properly to reflect differences in age and sex composition, cultural influence, activity nature and levels, body weight, climate, health status (nursing, pregnant) and the like, which means the general applicability of the reference person (e.g., 20 to 39 years of age, healthy, physically fit for active work, employed eight hours a day in moderate activities, weighing 65 kg if a man or 55 kg if a woman, and in a thermally-neutral microclimate); and (e) the periodic revision of the *poverty line* to take into account changes in the consumption bundle (with changes in income) and relative prices (separately for food and for other items). The question of periodic revision of the poverty line is at the heart of the relative versus absolute poverty debate. The Income Poverty Index (IPI), in some sense, combines both absolute and relative concepts of poverty. Furthermore, in the context of derivation of alternative welfare indices for the purpose of comparisons between countries, the concept of relative deprivation has often been invoked. In doing so, it avoids questions associated with socio-psychological perception of relative poverty.

On the income side there are many familiar problems. One is, of course, concerned with personal disposable income - net factor income plus all current transfers received regularly, less direct taxes. Questions arise with regard to the treatment of: (i) borrowing, past savings draw down, and sale of assets; (ii) capital gains (realized or not); (iii) imputed value of family labor engaged in the construction of non-tradable physical assets; (iv) non-market transactions; and (v) temporary fluctuations in income (what to consider permanent income or transitory income). What is important is to avoid households entering and leaving the poverty group merely as the result of arbitrary definitions or changes in coverage. In the literature on poverty and in government documents, one often comes across wide variations in estimates for the same period or large changes in the incidence of poverty (upward or downward) between periods, which may be illusory. The different poverty measures fail to differentiate between the poor and the poorest in a way which allows specific implications to be derived beyond broad-based internal or external resource allocation. Such a differentiation can, of course, be brought out only through in-depth micro-analysis of poverty characteristics and macro-analysis of poverty processes.

Measurement issues of various sorts also plague other non-income poverty indicators as well. For instance, the indicators of Education Status, *adult literacy rate* is the percentage of persons aged 15 and over who can read and write. In applying the indicator to specific countries this definition runs into problems. For example, population censuses in some countries record a person as literate if he or she can write their own name in any of the acceptable languages, while in some others writing ability refers to writing, with understanding, a short, simple statement on everyday life.

Again, the primary school enrollment figures are gross enrollment ratios, which are the total number of children enrolled in the primary level but do not account for those children who may drop out of school during the academic year, and whether or not they fall within the age groups for that level since the ratios are expressed as percentage of the relevant age group. Secondly, comparisons of enrollment ratios between countries suffer from a lack of information as to the definition of primary school age group, with many countries accepting six to 11 years, while others adopt different standards.

For Health Status, *access to health service* is defined as the percentage of rural population that can reach appropriate local health services by the usual local means of transport in no more than one hour but equality of health services vary among countries, e.g. medical assistants performing similar medical services, including simple operations, are included in the number of physicians. In addition, the *child mortality rate* indicator which assesses the number of deaths of children under five years of age per 1,000 live births has some measurement questions as well - the observed rate is a culmination of several factors, including genetics, nutrition and medical services. The contributory weight of each factor may vary from year to year or among countries but they assigned the same weight. Furthermore, the data on *access to safe water (percentage of rural population)* and *access to sanitation (percentage of rural ovulation)* are

also not available on a uniform basis. *Access to safe water* is measured in terms of the percentage of rural population having reasonable access to safe water (treated, or untreated but uncontaminated). Figures refer to the percentage of rural population with *access to sanitary means of disposal* of excreta and waste, including outdoor latrines and composting. Similar measurement issues afflict all the set of indicators that are in use, but suffice it to say, that in our opinion these indicators remain the best means for monitoring rural poverty.

Admittedly, any study or analysis based on the use of indicators is likely to yield results that have less precision than what one would like to attain, but it is clear that the most formidable problem in monitoring rural poverty is the data problem. While the problem is considerable, there is significant variability among developing countries. Some types of data covering traditional areas of interest such as, population and its general characteristics, health statistics (especially noticeable diseases), data related to public administrative functions (for example, school enrollments), public finances, and data on formal economic activity and international trade, are readily available, although they are not always highly reliable. However, most of these data are not disaggregated between either rural or urban or by gender.

The third issue that one generally faces is that the data sources rarely give clear operational definitions of the terms they use, and this makes comparisons of findings from various sources very difficult. The way particular variables are defined and the corresponding collection of data do not follow any uniform standard. Social and cultural norms and local factors affect the definitional and procedural specifications as well as accuracy of reporting. Even when the definitions adopted are unbiased; in many cases the same terms are used to describe very disparate social and material realities. Data are seldom available in a form useful for analysis of the economic and social situation of various countries in a standardized way. For example, the household data are not available in a form useful for analysis of the economic and social conditions of the *households headed by women* relative to *households headed by males*. In fact, there has been little effort to publish the data in a format that allows for the comparison of household characteristics, with every little effort being made to cross-tabulate information on households headed by women by marital status, age, economic activity, rural/urban residence, size and composition of household (including sex and ages of children, and number of economic units within an extended family).

In the same way the estimation of *rural shares of public expenditure (both current and development)* faces severe data and conceptual problems. There is very little quantitative information, which can be used precisely to allocate public expenditure to rural areas. Thus, a certain part of expenditure for the agricultural sector is spent on the urban areas, depending on the nature of public administration and the extent to which rural sector administration is located in the urban area.

There are also several areas or aspects of rural development and well-being such as natural resources management, governance, and development of markets for which the data indicators are completely non-existent. The need to urgently improve the rural data system cannot be over-emphasized.

## Measures to Address Monitoring Problems

Monitoring of rural poverty efficiently will require efforts in data collection on a sustained basis. There is now a general recognition that a lack of a reliable rural database is the major challenge to effective monitoring, and that *ad hoc* measures are inadequate. In fact, there is already an emerging consensus within the international community and developing countries to address the data problem. Measures are already underway in many developing countries to strengthen institutions charged with collecting data such as central statistical agencies, central and local government agencies, and research agencies and

universities. These institutions are beginning to make better use of existing rural data through improved analysis and dissemination. They are also improving the linkages among the existing rural information systems and expanding the coverage of periodic agricultural/rural sample censuses such as household and agricultural surveys/censuses, poverty mapping, and administrative, quantitative and qualitative data. These are focused on rural data related to family status, access to services, economic activity, production practices, expenditure and social activity. The value of these surveys would be greatly enhanced when they are followed up by the routine use of panel surveys using sub-samples, in order to track performance. This approach will ensure comprehensiveness and consistency, and will minimize the use of excessive amounts of anecdotal data.

These efforts require a long term financial commitment by countries and international partners. Some initiatives are also under way which could help in this effort. The Development Assistance Committee (DAC), in partnership with client countries and donor agencies are taking steps to ensure that relevant data are more readily available. For example, the Food Insecurity and Vulnerability Information Mapping System (FIVIMS), a UN inter-agency action, is working with countries to facilitate standard data collection for food security indicators to monitor follow up to the World Food Summit. There are also other initiatives such as PARIS21, FAO/WB program to strengthen agricultural statistics, core welfare indicator questionnaire (CWIQ), Living Standard Measurement Survey (LSMS) and WBI poverty analysis initiative. All the above initiatives are already contributing to improving the rural data system, including more effective monitoring of rural poverty.

## 6. Conclusion and Policy Implications

The majority of the world's poor are rural; and are expected to remain so till at least year 2035. The rural-urban poverty gap is large and there is no evidence of it narrowing. The gap is particularly glaring in respect of income, health, and educational status. Not only are the gaps wide, they also breed economic inefficiency and therefore, remain a drag on productivity and economic growth. All in all, the situation reflects an 'interlocking log-jam of disadvantage' that afflicts, in a disproportionately large measure, the rural population -- especially the rural women, the landless, the smallholders, pastoralists, and the indigenous minorities. They are faced with a conspectus of challenges ranging from low income, financial assets, physical assets and human assets, including gender and domestic policy biases.

Some of the broad and overall trends in rural poverty that the data reflected are:

- The overall evidence shows that the rural poverty is much more pervasive than the urban poverty (some three quarters of the poor live in rural areas). The incidence and depth of poverty is greater in rural areas than in urban areas.
- In general, the rural-urban poverty gaps continue to remain wide irrespective of the rise of average per capita income levels. For instance, the gap did not narrow in Latin America despite the fact the average per capita incomes in this region are higher than in South Asia and Africa, where some decline in this gap did occur over the same period of time.
- There has been somewhat faster decline in overall poverty in Asia, especially East Asia, but the rural-urban poverty ratio on a region-wise basis increased in the 1990's.
- While there has been some fall in the rural-urban poverty ratio in Sub-Saharan Africa, there was little reduction in poverty at the national level with possible exception of Ethiopia and Uganda.
- In general, the analysis of poverty data do not show any significant rates of poverty reduction in the 1990's as compared to the 1980's.
- The change in the incidence of poverty overtime has been uneven across countries (even within the same region). For instance, in Brazil and Chile, while both the incidence of poverty and the number of rural poor have declined; the number of rural poor increased in Colombia, whereas in Mexico both the incidence of poverty and the number of rural poor have increased.
- In general, not only is the incidence of poverty worst among rural populations, but also is the basic needs poverty as measured in terms of the health status (child mortality) and the educational status (adult literacy).
- The trends in human assets do not seem to reflect significant and positive relationships with the average per capita income level across the sample countries.
- The life expectancy data present modest improvements for the sample countries in the 1990's except in Africa where there is a decline; this could be caused by high incidence of HIV/AIDS in this region.

- Progress, in respect of gender equity, has been made in some countries on the 1990's. But in many others, women still lag behind men. This is the case particularly in Africa and South Asia.
- The importance of monitoring progress or lack thereof, of rural poverty is generally recognized but effective monitoring is made difficult by poor rural data system. A number of initiatives are currently underway to address this issue.

Some of the policy recommendations that can be made on the basis of this study are as follows:

- The rural poor are not a homogeneous group in terms of challenges they face and their links to the economy. Therefore, poverty reduction strategies should target those groups individually in terms of policy intervention that are most appropriate for each group rather than adopting a unified approach for all.
- Vibrant rural economies (farm and non-farm) are essential to reducing rural poverty. For agriculture, land is a key asset and broad based land reform programs and related policy interventions, including land titling on an individual or a communal basis, land redistribution, fair and enforceable tenancy reforms do contribute to access to land and increasing agriculture incomes. Evidence suggest that increased agriculture incomes do improve the standard of living of the rural poor.
- Besides land, the rural poor need other physical assets that are complimentary in their incomes (such as appropriate technology and agricultural inputs, e.g. fertilizers for agriculture), as well as financial resources (access to credit for non-farm activities). The rural poor need programs, policies, and institutional support that will help them to access and/or build-up these assets. The policy and institutional support will necessitate government action both at the household and community levels.
- Since human assets are critical determinants of rural poverty, it is important to ensure that government provides necessary support in improving access and availability of education and health facilities. Given the devastating effects of HIV/AIDS on human assets, governments should double their efforts on investing both in prevention and finding a cure.
- Policy measures to provide improved availability of infrastructures -- especially roads and other transport facilities as well as electricity -- should be undertaken. The government has important role to play in providing infrastructure in rural areas of many low income countries because the private sector is unlikely to fill the void.
- To deal with the problem of under-nutrition, different forms of policy measures should be adopted, depending on the particular circumstances of a given country. Such measures could include food-for-work programs, and/or cash and food transfers.
- To improve productivity gains, appropriate public/private partnership will be needed to facilitate the adoption of appropriate technology and farming systems that are best suited in relation to the local conditions. In this context, it will be desirable to reorient the research agencies and research centers to undertake adaptive trials of new technology appropriate to the local conditions.
- From the standpoint of sustainable long-term poverty reduction, it is necessary that relevant policy measures be adopted to reverse the trend between poverty and degradation of the environment. As such, it is important to ensure that no poverty reduction program threatens the resource base of the

poor. Moreover, projects should be designed and implemented so as to be internally self-sustaining and are conservation oriented.

- In view of the fact that the inequality in the distribution of land is worsening due to the mounting population pressure, policy measures to counter this trend are called for. Such policies and programs could include measures to slow the speed of population growth in rural areas.
- In the context of improving the returns to farm and non-farm activities, and reducing vulnerability to economic shocks, it is important that appropriate measures aimed at improving the access to market opportunities and increasing the bargaining power of the rural poor to take advantage of these opportunities are adopted. The fact remains that the ability of the rural poor to take full advantage of improved access and related opportunities will depend ultimately on the policy environment.
- To ameliorate the prevalence of poverty among rural women, government should undertake broad-based policy initiatives aimed at promoting gender equity through various macro-economic policies and poverty reduction strategies.
- It would be highly desirable to adopt measures that seeks to provide and promote an enabling environment whereby rural people become increasingly self-reliant economic agents in the decision making process. This necessarily calls for rural people's participation in development, upholding democratic norms, and relying on participatory management. It will in turn necessitate institution building/strengthening at the grass roots level.
- Reducing rural poverty in low income countries will necessarily need generous support from the international donor agencies. Unfortunately, the level of international support for the agricultural sector substantially declined in the 1990's (in 1988-98, the aid to agriculture fell by almost two thirds in real terms) (IFAD 2001). If international cooperation for development is to be meaningful, not only the level of assistance needs to be raised substantially for rural development, but such assistance should be channeled through institutions which are most appropriate to reach the rural poor.
- Improving rural data system in low income countries should be considered international priority. It will require concerted action by governments and donor community to develop capacity in low income countries, where they do not currently exist, to collect, maintain and measure data/indicators.



# Appendix

**Table A1: Rural Poverty Mapping For Selected Countries in Africa**

<i>Country</i>	<i>Who are the rural poor</i>	<i>Locations of the rural poor<sup>12</sup></i>	<i>Main challenges facing the rural poor</i>
<b>Ethiopia</b>	<ol style="list-style-type: none"> <li>1. Smallholders with less than 1.5 hectare fragmented holdings and very limited access to draught power.</li> <li>2. Landless.</li> <li>3. Rural women</li> <li>4. Displaced populations.</li> </ol>	<ol style="list-style-type: none"> <li>1, 2, 3. Widespread everywhere- Particularly concentrated in Llubabor, Welo, Gamo Gofa, Harerge, Sidama regions.</li> <li>4. Also in areas most severely affected by drought-largely in the north-east.</li> </ol>	<ul style="list-style-type: none"> <li>• Food insecurity</li> <li>• Poor natural resource base and degradation of the environment</li> <li>• Domestic policy biases</li> <li>• Natural disasters ( droughts)</li> <li>• Gender biases</li> <li>• Political conflicts and civil strife (dislocations)</li> <li>• Poor asset base (Human and physical)</li> <li>• Lack of financial assets</li> <li>• Limited access to basic infrastructure</li> <li>• Little or no social services</li> </ul>
<b>Cote-d'Ivoire</b>	<ol style="list-style-type: none"> <li>1. Smallholders producing food crops and coffee, cocoa on holdings on average less than 2 hectares.</li> <li>2. Immigrant farmers and sharecroppers.</li> <li>3. Landless and near landless.</li> </ol>	<ol style="list-style-type: none"> <li>1. The highest concentration of poverty is found in the northern Savannah, central and the West Forest regions.</li> <li>2. Concentrated in the central and southern areas as well as in the South-West.</li> </ol>	<ul style="list-style-type: none"> <li>• Domestic policy biases</li> <li>• Food insecurity</li> <li>• Poor natural resource base and degradation of the environment</li> <li>• Poor asset base (human and physical)</li> <li>• Lack of access to credit</li> <li>• Limited access to basic infrastructure</li> <li>• Gender biases (discrimination)</li> </ul>
<b>Ghana</b>	<ol style="list-style-type: none"> <li>1. Smallholders producing food crops and cocoa on on holdings on average of 1.6 hectares (four acres).</li> <li>2. Agricultural workers.</li> <li>3. landless and near landless.</li> <li>4. "Stranger" farmers and sharecroppers.</li> <li>5. Artisanal fishermen.</li> <li>6. Households headed by women.</li> </ol>	<ol style="list-style-type: none"> <li>1. All over but highest concentration in the Upper East and northern regions. Are also found in the more affluent Brong Ahafo, Volta and Ashanti regions.</li> </ol>	<ul style="list-style-type: none"> <li>• Domestic policy biases</li> <li>• Limited asset base (Human and physical)</li> <li>• Poor natural resource base and degradation of the environment</li> <li>• Gender biases (discrimination)</li> <li>• Lack of access to credit</li> <li>• Limited access to basic infrastructure</li> <li>• Food insecurity</li> </ul>

<sup>12</sup> Unless otherwise indicated, the points in this column apply to all groups described in the previous column.

<b>Table A1: Rural Poverty Mapping For Selected Countries in Africa</b>			
<b>Country</b>	<b>Who are the rural poor</b>	<b>Locations of the rural poor<sup>12</sup></b>	<b>Main challenges facing the rural poor</b>
<b>Kenya</b>	<ol style="list-style-type: none"> <li>1. Smallholders with less than 0.05 hectares per adult equivalent.</li> <li>2. Pastoralists.</li> <li>3. Landless and squatters.</li> <li>4. Migrant farmers</li> <li>5. Households headed by women.</li> </ol>	<p>Primarily, but not exclusively, in Nyanza and Western Provinces (Siaya, South Nyanza, Busia and Kakamega). Lower percentage in Kifili/Tana, River/Lamu and West Pokot/Elgeyo Marakwet.</p>	<ul style="list-style-type: none"> <li>• Food insecurity</li> <li>• Poor natural resource base and degradation of the environment</li> <li>• Domestic policy biases</li> <li>• Lack of access to credit</li> <li>• Natural disasters (droughts)</li> <li>• Gender biases (discrimination)</li> <li>• Poor asset base (human and physical)</li> <li>• HIV/AIDS</li> </ul>
<b>Nigeria</b>	<ol style="list-style-type: none"> <li>1. Smallholders (less than three hectares)</li> <li>2. Households headed by women.</li> <li>3. Artisanal fishermen.</li> </ol>	<ol style="list-style-type: none"> <li>1. Widely spread but more concentrated in the over-populated zones of the south-east (Anambra, Imo, and part of the Cross River State).</li> <li>2. All over the country, especially in the drought prone area of the north (Sokoto home district, Kana and Katsina regions).</li> <li>3. Akwa Ibom, Cross River and River State in the south-east.</li> </ol>	<ul style="list-style-type: none"> <li>• Food insecurity</li> <li>• Domestic policy biases</li> <li>• Political conflicts and civil strife (dislocations)</li> <li>• Gender biases</li> <li>• Limited asset base (human and physical)</li> </ul>
<b>Uganda</b>	<ol style="list-style-type: none"> <li>1. Smallholders (less than three hectares).</li> <li>2. Households headed by women.</li> <li>3. Nomads</li> <li>4. Artisan fishermen.</li> </ol>	<p>Widely distributed, but mostly concentrated in Karamoja region, the south-west and the Louwero Triangle and the north.</p>	<ul style="list-style-type: none"> <li>• Political conflicts and civil strife (dislocations)</li> <li>• Poor infrastructure (roads)</li> <li>• Domestic policy biases</li> <li>• Gender biases</li> <li>• Poor asset base (human and physical)</li> <li>• Lack of access to financial services</li> <li>• Scourge of HIV/AIDS</li> </ul>

	<i>Who are the rural poor</i>	<i>Locations of the rural poor</i> <sup>13</sup>	<i>Main challenges facing the rural poor</i>
<b>Bangladesh</b>	<ol style="list-style-type: none"> <li>1. Small cultivators (owners and owner-cum tenants) with holdings of 0.8 hectares.</li> <li>2. Subsistence cultivators (owner- cum tenants) with with operational holdings of 0.4-0.8 hectare.</li> <li>3. Marginal farmers with operational holdings of less than 0.4 hectare.</li> <li>4. Sharecroppers.</li> <li>5. Pure tenants.</li> <li>6. Landless with or with homestead land</li> <li>7. Artisan fishermen</li> <li>8. Rural women and households headed by women.</li> </ol>	All widely distributed all over the country; however, the people in the north-east and southern part of the country are relatively more vulnerable to natural calamities (floods, droughts) and cyclones.	<ul style="list-style-type: none"> <li>• Domestic policy biases</li> <li>• Natural disasters (droughts)</li> <li>• Food insecurity</li> <li>• Poor assets base</li> <li>• Gender biases (discriminations)</li> <li>• Lack of access to infrastructure</li> <li>• Lack of access to finance</li> <li>• Poor natural resource base and degradation of the environment</li> <li>• Landlessness</li> </ul>
<b>India</b>	<ol style="list-style-type: none"> <li>1. Smallholders owning three hectares or less.</li> <li>2. The landless.</li> <li>3. Displaced people.</li> <li>4. The tenants.</li> </ol>	<ol style="list-style-type: none"> <li>1.-4. Widely distributed in the country. Poverty is more prevalent in rainfed than in irrigated regions.</li> </ol> <p>Rural poverty is more severe in the North-eastern part of the country and also in some parts of southern India.</p>	<ul style="list-style-type: none"> <li>• Food insecurity</li> <li>• Domestic policy biases</li> <li>• Gender biases (discriminations)</li> <li>• Natural disasters (droughts)</li> <li>• Dualism (caste system)</li> <li>• Political conflicts and civil strife (dislocations)</li> <li>• HIV/AIDS</li> <li>• Lack of access to infrastructure</li> </ul>
<b>Pakistan</b>	<ol style="list-style-type: none"> <li>1. Smallholders owning three hectares or less.</li> <li>2. The landless.</li> <li>3. The tenants.</li> <li>4. Displaced people.</li> </ol>	<ol style="list-style-type: none"> <li>1. The majority of the rural poor are located in the province of Baluchistan. Poverty is also high in the desert areas of the Sind and the Barani areas of the Punjab.</li> </ol>	<ul style="list-style-type: none"> <li>• Domestic policy biases</li> <li>• Food insecurity</li> <li>• Political conflicts and civil strife (dislocations)</li> <li>• Landlessness</li> <li>• Gender biases (discriminations)</li> <li>• Limited assets base (physical and human)</li> <li>• Lack of access to finance</li> <li>• Limited access to social services</li> </ul>

<sup>13</sup> Unless otherwise indicated, the points in this column apply to all groups described in the previous column.

<b>Table A3: Rural Poverty Mapping Selected Countries in Latin America</b>			
<i>Country</i>	<i>Who are the rural poor</i>	<i>Locations of the rural poor<sup>14</sup></i>	<i>Main challenges facing the rural poor</i>
<b>Argentina</b>	<ol style="list-style-type: none"> <li>1. Landless rural population.</li> <li>2. Small agricultural producers of agri-industrial raw materials (sugar cane, cotton, tobacco, wool, etc.) and generally on precarious tenancy arrangements.</li> <li>3. Rural workers.</li> </ol>	<ol style="list-style-type: none"> <li>1. Patagonia and some central provinces.</li> <li>2. Northern region (provinces of Catamarca, Jujuy, La Rioja, Santiago del Estero, Salta Tucuman) and north-east region (provinces of Corrientes, Chaco, Formosa and Misiones).</li> <li>3. Isolated zones where rural wage legislation is never respected.</li> </ol>	<ul style="list-style-type: none"> <li>• Domestic policy biases</li> <li>• Lack of access to social services</li> <li>• Limited asset base (Human and physical)</li> <li>• Limited access to credit</li> <li>• Lack of access to infrastructure</li> </ul>
<b>Brazil</b>	<ol style="list-style-type: none"> <li>1. Smallholders with less than 10 hectares (although 60 percent below five hectares with an average holding of only 1.7 hectares).</li> <li>2. Squatters, landless and sharecroppers.</li> <li>3. Displaced sugar cane wage workers.</li> <li>4. Small semi-subsistence sub-family farms.</li> </ol>	<ol style="list-style-type: none"> <li>1. The northeast is the principal locus of absolute poverty, although significant nuclei of rural poverty are also found in central, central-western and western regions.</li> <li>2. Highest concentration again in the north-east.</li> <li>3. North-east (Zona da Mata).</li> <li>4. North-east (Agreste and Sertao).</li> </ol>	<ul style="list-style-type: none"> <li>• Dualism</li> <li>• Domestic policy biases</li> <li>• Gender biases (discrimination)</li> <li>• Food insecurity</li> <li>• Poor natural resource base and degradation of the environment</li> <li>• Lack of access to finance</li> <li>• Lack of access to infrastructure</li> </ul>
<b>Colombia</b>	<ol style="list-style-type: none"> <li>1. Small- scale peasants.</li> <li>2. Landless workers and temporary farms workers.</li> <li>3. Households headed by women.</li> <li>4. Amerindian populations.</li> </ol>	<ol style="list-style-type: none"> <li>1. In the South (Cauca, Narino) and Center (Boyaca/ Santander)</li> <li>2. Widely distributed, but mostly concentrated in the highlands and humid tropics.</li> <li>3. Endemic/all over the country.</li> <li>4. Cuca, Narina, Tolima, Magdalena, Cordoba departments and Amazonia.</li> </ol>	<ul style="list-style-type: none"> <li>• Cultural and ethnic biases</li> <li>• Domestic policy biases</li> <li>• Poor assets base (physical and human)</li> <li>• Political conflicts and civil strife (dislocations)</li> <li>• Food insecurity</li> <li>• Lack of access to finance</li> <li>• Poor infrastructure (roads)</li> <li>• Poor social services</li> </ul>
<b>Mexico</b>	<ol style="list-style-type: none"> <li>1. Small peasants (mainly Amerindian)</li> <li>2. Landless rural workers.</li> <li>3. Households headed by women.</li> </ol>	Mainly concentrated in the central southern states of the country (Guerrero, Oaxaca, Chiapas, Hidalgo and Puebla).	<ul style="list-style-type: none"> <li>• Domestic policy biases</li> <li>• Food insecurity</li> <li>• Limited asset base (human and physical)</li> <li>• Domestic policy biases</li> <li>• Lack of access to finance</li> <li>• Cultural and ethnic biases</li> </ul>

<sup>14</sup> Unless otherwise indicated, the points in this column apply to all groups described in the previous column.

<b>Table A3: Rural Poverty Mapping Selected Countries in Latin America</b>			
<i>Country</i>	<i>Who are the rural poor</i>	<i>Locations of the rural poor<sup>14</sup></i>	<i>Main challenges facing the rural poor</i>
<b>Peru</b>	<ol style="list-style-type: none"> <li>1. Amerindian populations.</li> <li>2. Isolated and marginal groups.</li> <li>3. Minifundistas.</li> <li>4. Households headed by women.</li> <li>5. Landless workers.</li> </ol>	Widely spread but highly concentrated in the central and southern highlands (Sierra Sur) and the Forest region (Selva).	<ul style="list-style-type: none"> <li>• Poor natural resource base and degradation of the environment</li> <li>• Domestic policy biases</li> <li>• Cultural and ethnic biases</li> <li>• Political conflicts and civil strife (dislocations)</li> <li>• Poor social services</li> <li>• Limited asset base (human and physical)</li> <li>• Lack of access to finance</li> <li>• Poor infrastructure (roads)</li> </ul>

<b>Table A4: Rural Poverty Mapping Selected Countries in the Middle East and North Africa</b>			
<b>Country</b>	<b>Who are the rural poor</b>	<b>Locations of the rural poor<sup>15</sup></b>	<b>Main challenges facing the rural poor</b>
<b>Algeria</b>	<ol style="list-style-type: none"> <li>1. Smallholders producing food crops on mostly non-irrigated land with holdings less than 5 hectares</li> <li>2. Landless</li> <li>3. Rural elderly men</li> </ol>	The poor are concentrated regionally in rural areas. Poverty is more acute in the coastal areas, the High Plateaux, and southern regions.	<ul style="list-style-type: none"> <li>• Dualism</li> <li>• Political conflicts and civil strife (dislocations)</li> <li>• Limited asset base (human and physical)</li> <li>• Domestic policy biases</li> <li>• Gender biases (discriminations)</li> <li>• Food insecurity</li> <li>• Lack of access to finance</li> <li>• Lack of access to infrastructure</li> </ul>
<b>Egypt</b>	<ol style="list-style-type: none"> <li>1. Smallholders and near landless.</li> <li>2. Landless agricultural workers.</li> <li>3. Households headed by women.</li> <li>4. Pastoralists.</li> <li>5. Unemployed school leavers and graduates.</li> </ol>	There is a higher concentration of poverty in Upper Egypt and in the oasis of the western deserts.	<ul style="list-style-type: none"> <li>• Domestic policy biases</li> <li>• Gender biases (discriminations)</li> <li>• Cultural and ethnic biases</li> <li>• Poor assets base (physical and human)</li> <li>• Poor natural resource base and degradation of the environment</li> <li>• Lack of access to finance</li> <li>• Poor infrastructure (roads)</li> <li>• Food insecurity</li> </ul>
<b>Morocco</b>	<ol style="list-style-type: none"> <li>1. Subsistence farmers with less than five hectares.</li> <li>2. Small farmers and landless farmers.</li> <li>3. Nomadic pastoralists and agro-pastoralists.</li> <li>4. Small-scale fishermen</li> <li>5. Households headed by women.</li> </ol>	<p>All widely spread over the country but mostly concentrated in the low-rainfall and arid regions.</p> <p>The south and east regions and Tensift have the highest concentration of poverty.</p> <ol style="list-style-type: none"> <li>4. Mostly coastal areas</li> <li>5. Widely distributed</li> </ol>	<ul style="list-style-type: none"> <li>• Domestic policy biases</li> <li>• Limited asset base (human and physical)</li> <li>• Poor natural resource base and degradation of the environment</li> <li>• Lack of access to infrastructure</li> <li>• Political conflict and civil strife (dislocations)</li> <li>• Natural disasters (droughts)</li> <li>• Lack of access to finance</li> </ul>

<sup>15</sup> Unless otherwise indicated, the points in this column apply to all groups described in the previous column.

<b>Table A5: Rural Poverty Mapping Selected Countries Eastern Europe and Central Asia</b>			
<i>Country</i>	<i>Who are the rural poor</i>	<i>Locations of the rural poor</i> <sup>16</sup>	<i>Main challenges facing the rural poor</i>
<b>Kazakhstan</b>	<ol style="list-style-type: none"> <li>1. Subsistence farmers with less than five hectares.</li> <li>2. Small farmers and landless farmers.</li> <li>3. Nomadic pastoralists and agro-pastoralists.</li> </ol>	<ol style="list-style-type: none"> <li>1. In rural parts of the country. Poverty incidence is very high in the southern part of the country.</li> <li>2. Also prevalent in the rural East.</li> <li>3. Concentrated in deserts and mountainous areas of the country.</li> </ol>	<ul style="list-style-type: none"> <li>• Domestic policy biases</li> <li>• Poor natural resource base and degradation of the environment</li> <li>• Political conflicts and civil strife (dislocations)</li> <li>• Natural disasters (droughts)</li> <li>• Food insecurity</li> <li>• Lack of access to infrastructure</li> <li>• Lack of access to finance</li> <li>• Cultural and ethnic biases</li> <li>• Limited asset base (human and physical)</li> <li>• Poor infrastructure (roads)</li> </ul>
<b>Romania</b>	<ol style="list-style-type: none"> <li>1. Landless rural population with holdings in average 1 to 3 hectares.</li> <li>2. Small farmers and landless farmers with scattered land ownership.</li> <li>3. Small semi-subsistence sub-family farms.</li> </ol>	<ol style="list-style-type: none"> <li>1. Poverty incidence is very high in the eastern part of the country, particularly in the South East and the North East, and the Hilly and mountainous areas.</li> <li>2. Concentrated in Botosani, Vaslui, Vrancea, and Teleorman areas.</li> <li>3. Widely distributed</li> </ol>	<ul style="list-style-type: none"> <li>• Poor natural resource base and degradation of the environment</li> <li>• Domestic policy biases</li> <li>• Poor social services</li> <li>• Limited asset base (human and physical)</li> <li>• Poor infrastructure (roads)</li> <li>• Lack of access to finance</li> </ul>
<b>Russia</b>	<ol style="list-style-type: none"> <li>1. Low-wage earners, landless rural workers.</li> <li>2. Subsistence farmers owning less than three hectares in the uplands (mainly corn and rain-fed crop farmers).</li> <li>3. Nomadic pastoralists and agro-pastoralists.</li> <li>4. Sub-marginal landholders</li> <li>5. Artisanal fishermen</li> <li>6. Landless</li> </ol>	<ol style="list-style-type: none"> <li>1. Densely settled areas. Absolute poverty is found in the Northern Caucasus regions. Poverty is also high in the central regions of Russia. West Siberia, Novosibirskaya, Saratovskaya, and Mordovskaya regions are among the poorest areas.</li> <li>2. Marginal drought prone areas of the country.</li> <li>3. Marginal land</li> </ol>	<ul style="list-style-type: none"> <li>• Poor natural resource base and degradation of the environment</li> <li>• Domestic policy biases</li> <li>• Poor social services</li> <li>• Poor infrastructure (roads)</li> <li>• Lack of access to finance</li> <li>• Limited asset base (human and physical)</li> <li>• Food insecurity</li> </ul>

<sup>16</sup> Unless otherwise indicated, the points in this column apply to all groups described in the previous column.

<b>Table A5: Rural Poverty Mapping Selected Countries Eastern Europe and Central Asia</b>			
<i>Country</i>	<i>Who are the rural poor</i>	<i>Locations of the rural poor<sup>16</sup></i>	<i>Main challenges facing the rural poor</i>
<b>Ukraine</b>	<ol style="list-style-type: none"> <li>1. Landless rural population.</li> <li>2. Nomadic pastoralists and agro-pastoralists.</li> <li>3. Small farmers and landless farmers.</li> <li>4. Artisanal fishermen</li> </ol>	<ol style="list-style-type: none"> <li>1. In some part of the western area. Severe poverty is found outside the areas of Kiev city, Chernihiv, Kharkiv, and Zakarpatska.</li> <li>2. High poverty rate in arid regions and high mountains areas.</li> </ol>	<ul style="list-style-type: none"> <li>• Poor natural resource base and degradation of the environment</li> <li>• Lack of access to credit</li> <li>• Domestic policy biases</li> <li>• Limited asset base (human and physical)</li> <li>• Poor infrastructure</li> <li>• Poor social services</li> </ul>

**Table A6: Rural Poverty Mapping for Selected Countries in East Asia and the Pacific Region**

<i>Country</i>	<i>Who are the rural poor</i>	<i>Locations of the rural poor</i> <sup>17</sup>	<i>Main Challenges facing the rural poor</i>
<b>China</b>	<ol style="list-style-type: none"> <li>1. Small agricultural operators with holdings of less than 2 hectares.</li> <li>1. The landless</li> <li>2. Minority ethnic groups</li> <li>3. Displaced people</li> <li>4. Transient poor</li> </ol>	<p>Concentrated in China's western provinces and remote mountainous townships</p> <p>Upland sections of the interior provinces of northern, northwestern and southwestern China</p>	<ul style="list-style-type: none"> <li>• Poor natural resource base and degradation of the environment</li> <li>• Food insecurity</li> <li>• Domestic policy biases</li> <li>• Political conflict</li> <li>• Lack of access to finance</li> <li>• Lack of access social services</li> <li>• Cultural and ethnic biases</li> <li>• Landlessness</li> <li>• Lack of access to infrastructure</li> </ul>
<b>Indonesia</b>	<ol style="list-style-type: none"> <li>1. Small and marginal agricultural operators owning less than one hectare with more than 50 percent owning less than 0.5 hectare.</li> <li>2. Landless agricultural laborers.</li> <li>3. Households headed by women.</li> <li>4. Non-rice farmers.</li> </ol>	<p>Rural poverty is most highly concentrated in Java (highest in Central and east Java), Lampung, most of Sulawesi and in most of the eastern Islands especially East Nusa Tenggara. Deprivation is highest in Nusa Tenggara, followed by west Nusa Tenggara and Kalimantan. Rural Sumatra as a whole has almost three times as many "deprived" people as rural Java.</p>	<ul style="list-style-type: none"> <li>• Limited assets base (physical and human)</li> <li>• Poor natural resource base and degradation of the environment</li> <li>• Past domestic policy biases</li> <li>• Lack of access to finance</li> <li>• Lack of access to infrastructure</li> <li>• Political conflicts</li> </ul>
<b>Philippines</b>	<ol style="list-style-type: none"> <li>1. Low-wage earners, landless rural workers.</li> <li>2. Subsistence farmers owing less than three hectares in the uplands (mainly rain and corn rain-fed crop farmers).</li> <li>3. Lowland subsistence rice farmers.</li> <li>4. Sub-marginal landholders and intercropping tenants on coconut lands.</li> </ol>	<ol style="list-style-type: none"> <li>1. Densely settled lowland areas, in central Luzon, southern Tagalog, western Visayas and northern Mindanao</li> <li>2. Marginal uplands and highlands in drought-prone western Luzon, Bicol, Northern Mindanao and other Visayas islands.</li> <li>3. Non-irrigated lowland areas in the Visayas and western Mindanao.</li> <li>4. Lands of low fertility, such as those located at intermediate elevations on the Visayas islands, and Bicol.</li> </ol>	<ul style="list-style-type: none"> <li>• Domestic policy biases</li> <li>• Limited assets base (physical and human) and poor social services</li> <li>• Political conflicts and civil strife (dislocations)</li> <li>• Lack of access to infrastructure</li> <li>• Poor natural resource base and degradation of the environment</li> <li>• Lack of access to credit</li> </ul>

<sup>17</sup> Unless otherwise indicated, the points in this column apply to all groups described in the previous column.

<b>Table A6: Rural Poverty Mapping for Selected Countries in East Asia and the Pacific Region</b>			
<i>Country</i>	<i>Who are the rural poor</i>	<i>Locations of the rural poor<sup>17</sup></i>	<i>Main Challenges facing the rural poor</i>
	5. Artesian fisheries  6. Displaced sub-sector workers suffering sharp recession.	5. Around Bicol, the eastern and central Visayas islands and Cagayan Valley  6. Particularly the sugar lands of many Negro estates	

# Bibliography

- ACC/SCN.2000. "The Fourth Report on The World Nutrition Situation." Geneva: ACC/SCN.
- Agarwal, B.(1994). "A field of one's own: gender and land rights in South Asia". Cambridge University Press.
- Ahmed, Raisuddin, and Mahabub Hossain. (1990). "Development Impact of Rural Infrastructure in Bangladesh". BIDS Research Report 83. Washington, DC: International Food Policy Research Institute in collaboration with the Bangladesh Institute of Development Studies.
- Appleton, Simon. 1999. "Changes in Poverty in Uganda." Center for the Studies of African Economics Working Paper, Oxford University.
- Arulpragasam, L.C. (1990). "Land reform and Rural Poverty in Asia" The State of World Rural Poverty Working paper 21. Rome International Fund for Agricultural Development.
- Besley, T. and Burgess, R. (1998). "Land reform, poverty reduction and growth: evidence from India". London School of Economics, Suntory and Toyota Centres for Economics and Related Disciplines DP No. 13. London School of Economics: London.
- Binswanger, H.P., Khandker, S.R. and Rosenzweig, M.R. (1993). How infrastructure and financial institutions affect agricultural output and investment in India". *Journal of development Economics* 41 (2): 337-66.
- Bijlmaker, L., Basset, M.T and D.M. Sanders (1996). Health and Structural Adjustment in Rural and Urban Zimbabwe. Research Report No. 101. Nordiska Afrikainstitutet, Motala.
- Buvinic, Mayra, and GeetaRao Gupta. 1997, "Female-headed Households and Female Maintained Families: Are They Targeted to Reduce Poverty in Developing Countries?" *Economic Development and Cultural Change*, 45 (2).
- Chen, Shaohua and Martin Ravallion. 2000. "How Did the World's Poorest Fare in the 1990s?" World Bank Staff Working Papers. Washington, D.C.: The World Bank.
- Coleman, Gilroy. 1990. "Problems in Project-Level Monitoring and Evaluation: Evidence from One Major Agency." *Journal of Agricultural Economics* 41:149-161.
- Csaki, Csaba and Laura Tuck. "Rural Development Strategy: Eastern Europe and Central Asia." World Bank Technical Paper Number 484." Washington, D.C.: The World Bank.
- Dercon, Stefan and Pramila Krishnan.1998. "Changes in Poverty in Rural Ethiopia 1989-1995: Measurement, Robustness Tests and Decomposition." Center for the Studies of African Economics Working Paper, Oxford University.
- Dollar, David and Paul Collier .2000. "Can the World Cut Poverty in Half? How Policy Reform and Effective Aid can Meet the DAC Targets." Washington, D.C.: The World Bank.
- FAO.1999. "The State of Food Insecurity in the World." Rome: FAO.
- Gaurav, Datt and Martin Ravallion. 1998. "Farm Productivity in Rural India." *Journal of Development Studies* 34: 62-85.

- Haddad, Lawrence, Christine Pena, Chizuru Nishida, Agnes Quisumbing, and Alison Slack. 1996. "Food Security and Nutrition , Implication of Intra Household Bias: A Review of Literature Discussion Paper 19, International Food Policy Research Institute (IFPRI), Washington, D.C.
- Hagenaars, Aldi J.M. and Bernard M.S. Van Praag. 1985."A Synthesis of Poverty Line Definitions." *Review of Income and Wealth* 2:139-54.
- Howell, John.1990. "Rural Poverty and External Aid." *Development Policy Review* 8:269-86.
- Huang, Xiyi. 1999. "Ground-Level Bureaucrats as a Source of Intensification of Rural Poverty in China." *Journal of International Development* 11:637-48.
- IFAD .2000. "Ending Rural Poverty in the 21st Century." IFAD: Rome.
- (1999e0. "Rural poverty assessment: Asia and the Pacific region". Asia and Pacific Division project Management Department. IFAD: Rome.
- (1999I). "Rural poverty: a regional assessment". Latin America and the Caribbean Division. IFAD, Rome.
- (2000a). "Rural Finance Policy paper. IFAD: Rome.
- International Fund for Agricultural Development . (1990a). "Bhutan Revisited. IFAD Country Strategy Statement". Rome: International Fund for Agricultural Development.
- (1989c). "Special programming Mission to Ethiopia". Rome: International Fund for Development.
- (1990m). "Socialist Republic of Viet Nam. Country brief and Pre-strategy report. IFAD Country Strategy Statement". Rome: International fund for Agricultural development.
- (1991a). "Special Programming Mission to Islamic Republic of Iran". Rome: International Fund for Agricultural development.
- International Federation of Agricultural Producers(IFAP). 1998. "Rural Poverty and Sustainable Development." Paris: IFAP
- Jalan, Jytsna and Martin Ravallion. "Determinants of Transient and Chronic Poverty: Evidence from Rural China." *World Bank Staff Working Papers*. Washington D.C.: The World Bank.
- Jazairy, I., Alamgir, M., and Panuccio, T. (1992). " the state of World Rural poverty: An Inquiry into Its Causes and Consequences". New York: University Press.
- Khan, Mahmood Hasan. 2000. "Rural Poverty in Developing Countries: Issues and Polices." *IMF Working Paper WP/00/78*. Washington: The International Monetary Fund.
- Killick, T. (1999). "ODI Poverty Briefing – making Adjustment Work for the poor.
- Kyeyune Grace and Patricia Goldey. (1999). "Toward Effective Poverty Reduction: A study of heterogeneous Groups of Poor Women in Uganda." *Journal of International Development* 11:565-580.
- Lampietti, Julian A, and Linda Stalker. 2000. "Consumption, Expenditure and Female Poverty: A Review of Evidence". Background paper for Engendering Development. World Bank, Washington, D.C.

- Lanjouw, P and Feder, G. (2001) Rural Non-Farm Activities and Rural Development: From Experience Towards Strategy. (draft unpublished background paper to new Rural Development Strategy), World Bank, Washington, DC.
- Lawrence, M., Lawrence, F., Cole, T.J., Coward, W.A., Singh, J., and Whitehead, R.G. (1989). "seasonal Pattern of Activity and Its Nutritional Consequences in Gambia". In Sahn (ed.). 1989a. 47-56.
- Lipton, M. (1977). "Why poor people stay poor: a study of urban bias in world development". Australian National University press: Canberra.
- (1985). "Land Assets and Rural Poverty, World bank Working Paper No. 744". World bank, Washington DC.
- Malmberg-Calvo, C. (1998). Options for Managing and Financing Rural Transport Infrastructure. World Bank, Washington, DC.
- Mearns, Robin. 1999. "Access to Land in Rural China." World Bank Staff Working Papers. Washington D.C.: The World Bank.
- Nyberg, Albert and Scott Rozelle. 1999. "Accelerating China's Rural Transformation. Washington, D.C.: The World Bank.
- Okidebe, Nwanze. 2000. "Monitoring Rural Well-Being a Rural Score Card." Washington, D.C.: The World Bank.
- Operations Evaluation Department (OED). 2000. "Poverty Reduction in the 1990s: An Evaluation of Strategy and Performance." Washington, D.C.: The World Bank.
- (2000b). "Evaluation and Poverty Reduction: Proceedings from a World Bank Conference." Washington, D.C.: The World Bank.
- Pradhan Menno and Martin Ravallion. 1998. "Measuring Poverty Using Qualitative Perceptions of Welfare." World Bank Staff Working Papers. Washington, D.C.: The World Bank.
- Quisumbing, Agnes, Lawrence Haddad, and Christine Pena. 2000. "Are Women Over-represented Among the Poor? Poverty Measures and Dominance Analysis for Ten Developing Countries" IFPRI, Washington, D.C.
- Rahman, A.. (1990a). "Poverty profile for Sub-Saharan Africa: An Overview". The State of World Rural poverty Working paper 39. Rome: International Fund for Agricultural Development.
- (1990g). "Selected Country Poverty profiles from Eastern Africa: Ethiopia". The State of World Rural Poverty Working Paper 50. Rome: International Fund for Agricultural development.
- Ranis, G., Stewart, F. and E. Angeles-Reyes (1990) Linkages in Developing Economies: A Philippines Study. San Francisco: International Center for Economic Growth. ICS Press.
- Ravallion, Martin and Binayak Sen. 1996. "When Method Matters: Monitoring Poverty in Bangladesh." Economic Development and Culture Change 44:761-92.
- (2000). "On the Urbanisation of poverty. Mimeo. World Bank: Washington DC.
- Ravallion, Martin. 1999a. "Monitoring Targeting Performances when Decentralized Allocation to the Poor is Unobserved." Washington, D.C.: The World Bank.
- (1999b). "Is More Targeting Consistent with Less Spending?" World Bank Staff Working Papers. Washington, D.C.: The World Bank.

- (1997). "Can High-Inequality Developing Countries Escape Absolute Poverty?" World Bank Policy Research Working Papers. Washington, D.C.: The World Bank.
- (1996). "Issues in Measuring and Modeling Poverty." *The Economic Journal* 106: 1328-1343.
- Rodrigues, Adrian and Stephen Smith . 1994. "A Comparison of Determinants of Urban, Rural, and Farm Poverty in Costa Rica." *World Development* 22: 381-397.
- Saith, Ashwani. 1990. "Development Strategies and the Rural Poor." *The Journal of Peasant Studies* 17: 171-244.
- Schneider, Hartmut. 1999. "Participatory Governance for Poverty reduction." *Journal of International Development* 11:521-534.
- Sen, A.K. (1976). "Poverty: An Ordinal Approach to measurement". *Econometrica*. 44 (2): 219-231.
- Siroki, S. and Siroki, S.K. (1993). Socio-economic profile of livestock owners: a case study. "Journal of Education and Social Change 7".
- Sjaastad, E. and Bromley, D.W. (1997). Indigenous land rights in Sub-Saharan Africa: Appropriation, Security and Investment Demand. "World Development" 25 (4): 549-62.
- Quibria, M.G. and T.N. Srinivasan.1993. "Introduction" in *Rural Poverty in Asia*, 103-23. Ed. by M.G. Quibria (Hong Kong: Oxford University Press).
- Schneider, Hartmut. 1999. "Participatory Governance for Poverty Reduction." *Journal of International Development* 11:521-34.
- Sen, Amartya. 1976. "Poverty: An Ordinal Approach to Measurement." *Econometrica* 44:219-231.
- Srinivasan, T.N. 1993. "Rural Poverty: Conceptual, Measurement, and Policy Issues," in *Rural Poverty in Asia*, 103-23. Ed. by M.G. Quibria (Hong Kong: Oxford University Press).
- Thorbecke, Eric. 1999. "Short Note on Poverty Indicators." Background paper for World Development Report 2000/1: *Attacking Poverty*. Washington, D.C.: The World Bank.
- UNDP. 2000. "Overcoming Human Poverty." New York: United Nations.
- (1993). "Human development report 1993. Oxford University Press: New York
- (2000). "Human development report 2000. Oxford University press: New York.
- (1998). "Human Development Report 1998". Oxford University press: New York.
- White, Howard. 1999. "Global Poverty Reduction: Are We Heading in the Right Direction?" *Journal of International Development* 11: 503-519.
- World Bank. 2000a. "World Development Report 2000/1: *Attacking Poverty*." New York: Oxford University Press.
- (2000b). "A Sourcebook for Poverty Reduction Strategies." Washington, D.C.: The World Bank.
- (1998). "El Salvador: Rural Development Study." World Bank Country Study. Washington: The World Bank.
- (1997). "Rural Well-Being: From Vision to Action" ESSD Proceedings No. 15. Washington, D.C.: The World Bank.

----- (1990). "World Development Report1990." New York: Oxford University Press.

----- (1995). "Rural women in the Sahel and their access to agricultural extension sector study: overview of five country studies". World bank: Washington D.C. Report No. 13532.

----- (2000). "Voices of the poor". World bank: Washington DC.

----- (2001). Engendering Development. World Bank: Washington D.C.

Zeller, Manfred, Cecile Lapenu, Bart Minten, Eliane Ralison, Desire Randrianaivo, and Claude Randrianarisoa.  
1999. "Pathways of Rural Development in Madagascar: An Empirical Investigation of the Critical Triangle Between Environmental Sustainability, Economic Growth, and Poverty." *Quarterly Journal of International Agriculture* 2: 105-27.

## **Other Background Papers in this Series**

This study is the third in a series of background papers published by the Rural Development Department of the World Bank in the preparation of the Bank's new rural development strategy. For additional information on this, or forthcoming papers in the series, please contact Mr. Alan Zuschlag at (202) 458-5591.

**Rural Development Strategy Background Paper #1:** Long Term Prospects for Agriculture and the Resource Base – August 2001

**Rural Development Strategy Background Paper #2:** The Role of Agriculture in Economic Development – August 2001





The World Bank

Rural Development Department  
The World Bank  
1818 H Street, N.W., Room MC5-724  
Washington, D.C. 20433  
website: <http://www.worldbank.org>