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Rural Poverty in Developing Countries: Issues and Policies

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Abstract

In most developing countries, poverty is more widespread and severe in rural than in urban areas. The author reviews some important aspects of rural poverty and draws key implications for public policy. He presents a policy framework for reducing poverty, taking into account the functional differences and overlap between the rural poor. Several policy options are delineated and explained, including stable management of the macroeconomic environment, transfer of assets, investment in and access to the physical and social infrastructure, access to credit and jobs, and provision of safety nets. Finally, some guideposts are identified for assessing strategies to reduce rural poverty.

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I. Introduction

The purpose of this paper is to review some important aspects of rural poverty in developing countries and draw key implications for public policy. In most developing countries a large proportion of the poor are in rural areas and their poverty is generally far more severe than in urban areas. The causes of rural poverty are complex and multidimensional, involving the forces of nature, markets, and public policy. Likewise the rural poor are quite diverse in their resource endowments and links to markets and the government and their strategies to deal with vulnerability and risk. The paper identifies the rural poor and develops a policy framework for reducing poverty. It then discusses several policy options for poverty alleviation, including stable macroeconomic management, transfer of assets, access to credit, jobs and infrastructure, and safety nets. Finally, it delineates some of the strategic guideposts for reducing rural poverty.

II. Poverty: Concept, Measurement, and Differences

A. Poverty, Growth, and Inequality

Economic development, broadly defined, is about improving human "well-being."[2] It is usually a drawn out and complex process associated with deep structural and institutional changes in the economy and society. Development is determined largely by local conditions, including geography, institutions, political and social integration, social capability, and inequality.[3] Underdevelopment—the other side of development—in a country usually means that a substantial proportion of the population is in a state of unacceptably inadequate well-being or (absolute) poverty.

In the context of developing countries, poverty has been studied extensively only in the last 40 or 50 years; it has been the focus of public policy for no more than 30 years. Poverty is not only a state of existence but also a process with many dimensions and complexities. It is almost always characterized by high levels of (i) deprivation (dispossession), (ii) vulnerability (high risk and low capacity to cope), and (iii) powerlessness.[4] These characteristics form the core of inadequate well-being. Poverty can be

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[2] Well-being is a difficult concept to interpret since it encompasses several aspects of the human condition, including the material (income and consumption) and non-material (rights, freedoms, capabilities). See, for example, Dasgupta (1993).

[3] David Landes (1998) has written a very interesting and somewhat provocative history of economic development.

[4] Our understanding of contemporary poverty, its measurement, and policy implications in diverse circumstances, has been greatly enhanced by the writings of many economists, Amartya Sen (1999) in particular. A good review of the literature on poverty can be found in Lipton and Ravallion (1995).

persistent (chronic) or transient, but the latter if acute can turn into a transgenerational trap.[5] Consequently, the world of the poor is diverse both in space and time. The poor adopt all kinds of strategies to mitigate and cope with their poverty. In understanding poverty and the poor, it is essential to examine the context of the economy and society, including institutions of the state, markets, communities, and households (families). Poverty differences cut across gender, ethnicity, age, residence (rural versus urban), and income source. At the household level, often children and women suffer more than adult males. In the community, minority ethnic or religious groups suffer more than the majority groups, the rural poor more than the urban poor; among the rural poor, the landless wage workers suffer more than small landowners or tenants. These differences among the poor reflect highly complex interactions of cultures, markets, and public policies.

The links between poverty, economic growth, and income distribution have been studied quite extensively in recent literature on economic development.[6] Absolute poverty can be alleviated if at least two conditions are met. First, economic growth occurs—or the mean income rises—on a sustained basis. Second, economic growth is either neutral to income distribution or reduces income inequality. Poverty cannot be reduced if economic growth does not occur; poverty tends to change in the same direction as the mean income (Bruno and Ravallion, 1998). In fact, persistent poverty of a substantial portion of the population can dampen the prospects for economic growth.[7] Also, the initial distribution of income (and wealth) can greatly affect the prospects for growth and alleviation of mass poverty. There are good theoretical reasons and empirical evidence to suggest that large income inequality is not good for either poverty reduction or economic growth.[8] Current experience with economic growth shows that if countries put in place incentive structures and complementary investments to ensure that better health and education lead to higher incomes the poor will benefit doubly through increased current consumption and higher future incomes.

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[5] There is evidence that more people move into and out of poverty than remain always poor, reflecting the acute and fragile nature of transient poverty (World Bank, 2000).

[6] A compendium of literature on these issues can be found in a book recently edited by Atkinson and Bourguignon (2000). Also, see Lipton and Ravallion (1995) and Bruno, Ravallion, and Squire (1998).

[7] Several arguments have been made in support of this proposition. The major factors include inadequate ownership of physical assets, hence poor access to credit, and low levels of human capital (education and health). See the literature cited by Ravallion and Datt (1999).

[8] See Aghion, Caroli, and Garcia-Penalosa (1999); Ravallion and Datt (1999).

The pattern and stability of economic growth also matter in reducing poverty.[9] The capital-intensive, import-substituting, and urban-biased growth process, induced by policies on pricing, trade, and public expenditure, has not been good for alleviating poverty. Agricultural growth, with low concentration of land and labor-intensive technologies, is almost always good for poverty reduction (Gaiha, 1993; Datt and Ravallion, 1998). Finally, sharp drops in growth—resulting from shocks and adjustments—may increase poverty and even when growth resumes, poverty may not improve because inequality may have increased by the crisis.

B. Measurement of Poverty

Poverty is hard to measure for a number of reasons (Ravallion. 1994).[10] First, it is multidimensional, reflecting deprivation in income and nonincome dimensions. Second, it is dynamic, since the poverty dimensions are subject to fluctuations (volatility). Therefore, no single indicator or group of indicators of well-being exists on which there is or can be a consensus. Should we be satisfied with income or expenditure to acquire the food necessary for decent (humane) survival? Or should we add other "needs," such as housing, health care, education? Consumption (expenditure) is the preferred variable because of its stability compared to income. The relevant income concept is one that excludes taxes but includes net private and public transfers. Prices and access to public services vary so the same total expenditure may leave one household (individual) poor and the other not.

In addition, there has to be a consensus or general agreement on what is regarded as the "minimum" or "basic" level of well-being or standard of living. The minimum level of income or consumption necessary to buy the bundle of goods and services depends on a society's judgment (if not consensus) at any given time. We know that even absolute needs change with place and time.

Finally, with regard to the basic unit of poverty or the poor, should we measure poverty on a per capita or household (family) basis? The size and (demographic) composition of households differ, and there are also poverty differences among members of the household (children and women are at the bottom in most households).

Certain dimensions of poverty dominate because of convenience in analysis and measurement for comparisons across households (individuals), countries, and time. The income or consumption level supplemented by indicators of health (e.g., infant mortality, life expectancy) and education (adult literacy and school enrolments) are the most commonly

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[9] Ravallion and Datt (1999) have argued persuasively that, in a dualistic economy with large rural-urban disparities, the growth of the nonfarm sector can reduce absolute poverty more if the initial income disparities among sectors and income groups are small.

[10] Lipton and Ravallion (1995) have summarized this literature.

used measures of poverty. There are two problems here. First, how closely associated are these dimensions? Second, people may be poor differently in different dimensions, although some households may be poor in multiple dimensions.

The money value of personal consumption, based on household surveys, has become the standard measure of (income) poverty. It is used to establish a critical cut-off point in personal consumption, or *poverty line*, that should, but does not always, include contributions from common property resources, subsistence production, subsidies and public services, and private transfers. There are two approaches to the measurement of the poverty line. In one approach the poverty line is fixed in relation to the average level of GNP of a country. The second approach uses the monetary value of a basket (bundle) of goods and services considered as the minimum necessary for decent survival. The latter approach allows intertemporal and intercountry comparisons by using a constant poverty line within and across countries.

Our interest in poverty is not merely in measuring the *headcount* or the proportion of a country's population whose consumption (income) level is at or below the poverty line. From a policy point of view, three other important issues need to be addressed. First, we have to know the *poverty gap* or the difference between the average consumption (income) of the poor and the poverty line consumption (income). This allows us to estimate, at the aggregate level, the resource transfer that may be required from the non-poor to the poor. Second, we have to know the *severity of poverty* or income distribution among the poor. Not all of the poor are equally poor. Third, we must know who the poor are in terms of their characteristics and links to the economy. These differences would highlight the need for policy options for both economic growth and poverty reduction.[11]

C. Rural and Urban Poverty

Rural poverty accounts for nearly 63 percent of poverty worldwide, reaching 90 percent in countries like China and Bangladesh and ranges from 65 to 90 percent in sub-Saharan Africa (World Bank, 2000). The exceptions are several countries in Latin America in which much of the poverty is in urban areas. In almost all countries, there is a higher incidence of poverty in rural than in urban areas and the conditions of the rural poor are far worse than those of the urban poor in terms of personal consumption levels and access to education, health care, potable water and sanitation, housing, transport, and communications. Persistently high levels of rural poverty, both with or without overall economic growth, have been feeding into rapid population growth and migration of people to urban areas. In fact, much of the urban poverty is a reflection of the poverty alleviation strategies of the rural

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[11] These issues have been analyzed extensively in the literature cited by, among others, Lipton and Ravallion (1995). In view of the importance of these issues, more of the research resources are being directed to surveys of household income and expenditure and accumulation of the panel data for households.

poor. Distorted policies of governments, such as penalizing the agriculture sector and neglecting the rural (social and physical) infrastructure, have been major contributors to both rural and urban poverty. The urban informal sector acts as a sponge for the labor that cannot find jobs in the formal sector and has strong rural links. Transient labor and remittances are a link between the rural and urban poor households in many countries.

The existence of disparities between the rural and urban sectors is an important dimension of the overall inequality in developing countries. The observed economic dualism limits the prospects for growth that favors the poor. Rural underdevelopment constrains sustained growth of industries in urban areas because it raises the cost of food and raw material and reduces the size of the market for industrial goods. In addition, the factor market distortions impede poverty reduction through nonfarm growth. The extent of the labor market distortion—reflected in the gap between rural and urban wage rates—affects the rural wage rate and the extent to which the poor are able to gain from an expanding nonfarm sector. The rapid growth of urban areas in the absence of sustained rural (farm and nonfarm) growth tends to reinforce the rural-urban disparities and does not benefit the poor (Ravallion and Datt, 1999).

III. The Rural Poor and Their Links to the Economy

A. Characteristics and Differences

The poor in rural areas are dependent largely on agriculture (crop and livestock production), fishing and forestry, and related (rural) small-scale industries and services. In order to understand the processes by which poverty affects these individuals and households, and to delineate the policy options for poverty reduction, we need to first know who the rural poor are. They are not a homogeneous group. One possible criterion for classifying the rural poor into groups is their access to agricultural land.

Cultivators	Noncultivators
small landowners sharecropping tenants owner-cum-tenants	laborers/employees village artisans pastoralists/herders

While this classification reflects real differences among the rural poor, there is much functional overlap between these groups. The overlap reflects the poverty-mitigating strategies of the poor in response to changes in the economy and society. Cultivators have access to some agricultural land either by ownership or tenancy. These small landholders and tenants form the bulk of the rural poor in developing countries. They are directly engaged in the production and management of crops and livestock. Since these households cannot sustain themselves on the small parcels of land they own or cultivate, they provide their labor to others for both farm and nonfarm activities inside the village and outside. Some members of these households migrate to towns or cities either on a rotational or long-term basis. In many countries, both small landowners and tenants are under increasing pressure to get out of the agriculture sector altogether. Underlying this process of "depeasantization" are the forces of market and policies affecting landholdings, rents, prices, credit, inputs (water, fertilizer, etc.), and public investment in the social and physical infrastructure.

Small landowners, in many countries, contribute a relatively large share of output of major crops. They also market a significant part of their output. They cultivate their holdings with high intensity of land and labor. Their integration into the cash economy (markets) has reduced the role of their subsistence (food) economy, hence they have become net buyers of food staples. They supplement their income and consumption by wage work on farms of others or in nonfarm activities. The other group of cultivators, sharecropping tenants, has access to small parcels of land and capital (input) markets through informal and largely insecure contracts with large landowners. In many countries, these contracts are highly asymmetrical, reflecting a high concentration of landownership and rapid growth of population (labor). Given the rapid development of capital-intensive farming, and its increasing profitability, the share-tenancy contracts are being replaced by either self-cultivation with wage labor or the fixed-rent contracts. Consequently, sharecroppers are being displaced (if not evicted) and joining the ranks of the landless (wage) workers.

Landlessness has become a major feature and cause of rural poverty in many developing countries. Both the size and proportion of the rural population without land have been rising rapidly. Landlessness has many causes, including unequal distribution of land, rapid growth of population, laws of inheritance, privatization of communal lands, periodic economic (price) shocks, indebtedness, and resource (land) degradation. The small landowners and sharecropping tenants are losing access to land because of the structural changes as well. These changes are part of the process of development itself. The overall pressure of landlessness in rural areas is reflected in the increasing importance of off-farm work and nonagriculture as a source of household income. A vast majority of the rural poor households, particularly those without access to land or with little land, are dependent on wage income that may account for one-third to one-half of the total household income. The near-landlessness of cultivators with small landholdings is exacerbated by (i) excessive fragmentation of their landholdings, (ii) marginal quality of land, and (iii) inadequate or unreliable supply of water.[12]

Generally the landless and unskilled workers are the poorest among the rural poor.[13] Their numbers have been rising rapidly by the natural increase in population and the process of depeasantization referred to earlier. These workers depend on the seasonal demand for labor in agriculture and off-farm activities in the rural informal small-scale industries and

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[12] See Lipton (1985); Jazairy and others (1992); and Gaiha (1993).

[13] Lipton (1988) has discussed at some length the differences among the rural poor.

services. It is also from their ranks that a majority of the migrant workers are supplied to the urban informal sector. The rural landless workers are vulnerable to fluctuations in the demand for labor, wage rate, and price of food commodities. Their entitlement to food comes from their work, wage, and price of food. They are even more handicapped than the small landowners and tenants in accessing the public infrastructure and services. In addition, unlike their counterparts in urban areas, they are often excluded from the public sector safety nets (food rations, for example) as well. The village artisans in most countries have moved into small-scale rural industries. Pastoralists and herders are nomadic communities, found mostly in sub-Saharan Africa, who depend almost entirely on their livestock. As already indicated, rural women, both in the landowning and landless households, usually suffer far more than males. Their poverty and low social status in most societies is one of the most important reasons for persistent (chronic) poverty. There is substantial evidence from numerous countries that focusing on the needs of women and their empowerment is the key to economic and social development. This issue will be discussed further in the context of policy interventions to reduce rural poverty.

B. Links to the Economy

To understand the process of poverty creation in rural areas and its effects on different groups, we should look at the assets that the poor own or to which they have access and their links to the economy. The economic conditions of the rural poor are affected by a variety of assets (and their returns) at the household, community, and supra-community levels. These assets can be classified into four groups (Table 1). Their *physical assets* include the natural capital (private and common property rights in land, pastures, forest, and water), machines and tools and structures, stocks of domestic animals and food, and financial capital (jewelry, insurance, savings, and access to credit). The *human assets* are the labor pools with their age, gender, skills, and health in the household and communities. The *infrastructural assets* are the publicly and privately provided means of transport and communications, access to schools and health centers, storage, potable water, and sanitation. The *institutional assets* include the legally protected rights and freedoms and participation in making decisions at the level of household, community, and supra-community. The first two categories of assets are largely regulated through formal and informal networks between individuals and communities. It is important to take into account both the quantitative and qualitative aspects of these assets. Most rural people, particularly the landless households and rural women, are greatly handicapped by inadequate assets and their low and volatile returns.

The differences among the rural poor are more clearly reflected in their links to the economy, using their assets, and participating in the production process. As shown in Table 2, all of the rural poor are engaged in the production of both tradable and nontradable goods and services. However, there are many nontradable services that the artisans and unskilled workers provide and some nontradable products (such as staples) that the small cultivators produce. With regard to the use of resources, only cultivators have access to small parcels of land by ownership or (sharecropping) tenancy. They are also the only groups that own or rent physical capital such as tools, implements, and machinery. Artisans and pastoralists have only limited amounts of physical capital. The access to finance capital is limited and acquired largely through informal agents or institutions, except for tenants who can use the landlord as a conduit for formal credit. Much of the borrowed capital has a high cost and is used for consumption smoothing or meeting the cash needs for farm inputs. The household labor is both self-employed—unpaid family members—and used for wages—landless unskilled workers—on farm and nonfarm activities.

All groups of the rural poor are vulnerable to serious risk due to changes in nature (weather), health, markets, investment, and public policy. The fluctuations in prices and quantities of their assets and products, brought about by these changes, can mean either deepening poverty or getting out of it. Movement into and out of poverty is quite common. The main reason is that the rural poor have a very low capacity to absorb shocks. In addition, sharp increases in poverty can result from economic crises and natural disasters, which also weaken the ability of the poor to get out of poverty.[14]

The rural poor use a variety of mechanisms to manage risk (World Bank, 2000). There are three aspects of risk—reducing risk, mitigating risk, and coping with the effects of risk—and two mechanisms—informal and formal—for each of the three aspects (Table 3). The informal mechanisms are at the household and community (group) levels, and the formal mechanisms involve the market and public sectors. Informally, risk is reduced through diversification of income sources, preventive health care, management of common property and infrastructure, and migration. The formal mechanisms are all in the public sector for risk reduction, including sound policies on macroeconomic management, labor and product markets, environment, and provision of infrastructure and services for basic education, health care, sanitation. Risk can be mitigated informally by building buffer stocks, investing in human capital, diversifying land and crops, and forming community associations for savings and loans and networks for reciprocal exchange or cash transfers. The formal mechanisms can include both the market and public sectors, like banks and insurance in the market sector and the protection of property rights, microfinance, works program, extension service, and targeted subsidies on food or nutrition. However, these are either weak or nonexistent for the rural poor in most developing countries.[15] The coping mechanisms are all very costly, even disastrous, especially for the individual households and communities affected by shocks.

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[14] There is strong evidence that, while the channels affecting the different groups of the poor are not the same or similar, these shocks can wipe out previous gains, make the distribution of income more unequal, and deteriorate the social indicators (World Bank, 2000). While the effects of economic crises may not affect the rural poor in the same way or to the same degree because of their links with the economy, the damage of natural disasters (floods or drought) can collectively affect the whole community.

[15] Risk mitigating insurance in rural areas is largely done informally within the family or community (at the local level) in different forms that are both inadequate and costly. The formal market-based or publicly provided insurance, where it exists, is inaccessible to the rural poor.

IV. Rural Poverty Processes: Some Underlying Factors

There are a number of closely associated processes in the economy and society that create and perpetuate rural poverty.[16] Most of them are internal to the society, but some are external. The internal processes are induced by institutions, public policy, household behavior, and market conditions. The paper will examine them briefly to facilitate understanding of the factors and policies that can help reduce rural poverty.

Political instability and civil strife are obviously bad for economic growth and their effects on the rural poor are often the most debilitating. Even in stable societies, certain rural groups have been marginalized because of their exclusion on the basis of caste, race, or ethnicity. In addition, if the property rights are not well-defined or not fairly enforced, say in agricultural land or other natural resources, they lead to waste of these resources and reinforce rural poverty. This is the condition of small peasants in many countries of sub-Saharan Africa. In other parts of the world, a high concentration of ownership of agricultural land and the asymmetrical tenancy arrangements are often at the root of much poverty in rural areas. In fact, in many countries, access to land is the basis on which individuals and households are empowered and can acquire inputs and services.

There is also the problem of rural dualism in several countries of Asia and Latin America. This phenomenon is characterized by a dichotomous agrarian structure in which the large landowners and commercial production system (*latifundista*) coexist with the small peasants and their subsistence farming (*minifundista*). In these economies, the rural poor are usually victims of the excesses of landlords, merchants, and moneylenders. In addition, in many developing countries, a rent-seeking (corrupt) public bureaucracy—civil service, police, and judiciary—imposes additional costs on the poor by (i) appropriating in different ways a large part of the surplus the rural poor produce and (ii) not providing the services the poor need and rightfully deserve. This condition persists because of the absence of rule of law, lack of transparency and accountability, excessive controls or regulations, centralization of power, and voicelessness of the poor.

National economic and social policies can contribute to rural poverty with biases that exclude the rural poor from the benefits of development and accentuate the effects of other poverty-creating processes. Policy biases that generally work against the rural poor include:

- urban bias in public investment for infrastructure and provision of safety nets;
- implicit taxation of agricultural products through so-called support prices and an overvalued exchange rate;
- direct taxation of agricultural exports and import subsidies;
- subsidies for capital-intensive technologies;

[16] Jazairy and others (1992) and Gaiha (1993) have discussed this issue in some detail.

- favoring export crops vis-à-vis food crops; and
- bias in favor of large landowners and commercial producers with respect to the rights of landownership and tenancy, publicly provided extension services, and access to (subsidized) credit, and the like.

These policies can have both short- and long-term effects on the rural poor. These effects are of particular significance in the context of the structural adjustment programs that many developing countries have undertaken to restore macroeconomic stability and expand the capacity of the economy to increase production, employment, and incomes.

The poor rural households have large families and a high dependency burden, reflecting rapid population growth. The survival strategy of the poor makes them strive for relatively large families since they have few assets other than human labor for both current and future income (that is, through expected transfers from children to parents in old age). The high rate of population growth—caused mainly by rapid decline in death rates without concomitant change in birth rates—and the skewed age structure have contributed to increased pressure on land and other resources, employment, social services, and rural-urban migration. While more hands (large family) may help alleviate immediate (acute) poverty, this strategy can become a cause of persistent (chronic) poverty.[17] Excessive pressure on natural resources, which results from high levels of rural poverty, also contributes to the depletion of natural resources and degradation of the environment. This in turn accentuates the suffering of the rural poor. Reduction in rural poverty can help reduce the burden on the natural resource base and the environment. Therefore, the availability of other resources (assets) is critical in determining the extent of rural poverty.

The role of markets is no less important in affecting the conditions of the poor in rural areas. Almost all of the product and resource markets are highly imperfect and produce distorted signals for the allocation of resources. These distortions are due to (i) the structural (dualistic) conditions of landownership and tenancy contracts and the segmentation of labor and financial markets and (ii) government policies on prices of output, particularly crops, subsidies on inputs and some services, direct and indirect taxes, exchange rate, interest rate, and the like. These factors work through the product and resource markets and adversely affect the conditions of all groups of the rural poor. In fact, the increased private profitability of commercial (capital-intensive) agriculture, induced largely by distorted market structures and public policy, has been a major factor in the process of depeasantization in many

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[17] In the large poor households, the burden of poverty is far greater on women and children than on adult males both in terms of the amount and drudgery of work and inadequate nutrition and health care. This is especially true of households from which some or most adult males have migrated on a rotational or permanent basis. While the remittances from urban areas may help alleviate some of the burden of poverty on the household, the rapid migration of rural labor adds to the economic and social problems of urban areas.

developing countries, increasing the ranks of the landless looking for casual work or long-term employment in rural and urban areas.

Finally, external shocks due to changes in the state of nature and conditions in the international economy can adversely affect poverty. Seasonal fluctuations in output and prices can translate into nutritional deprivation and hunger, particularly for the landless laborers and their households. Seasonal food shortages are aggravated because the poor, especially the small landowning peasants, are forced to sell the harvested crop immediately at a low price and buy the food back at a higher price later. These conditions tend to reinforce rural indebtedness. In some countries, natural disasters can assume a regular pattern in the form of drought and floods. Poverty in rural areas is also induced by the international processes that include (i) fluctuations in commodity prices, (ii) protectionism against agricultural exports, (iii) rising international debt, (iv) declining inflow of resources and public goods (such as agricultural technology), and (v) falling workers' remittances.

V. Public Policies for Reducing Rural Poverty

A. Agricultural Growth and Rural Poverty Alleviation: A Policy Framework

Agricultural growth through technological change is one of the most important ways to reduce rural poverty.[18] However, its impact on the rural poor depends on the initial conditions, the structure of institutions, and incentives. We know that agricultural stagnation, even regression, has harmed the rural poor in sub-Saharan Africa since it has reduced their entitlement to food and jobs by food shortages and higher prices. Conversely there is substantial evidence from the experience of the "green revolution" that rapid agricultural progress made a big difference in reducing rural poverty in parts of South Asia. Datt and Ravallion (1998) have found that higher crop yields reduce both the headcount and severity of rural poverty. But these effects are strong only if the following important conditions are met:[19]

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[18] Agricultural growth is essential for overall economic growth since it stimulates growth in the nonagricultural sectors, which results in increased employment and reduces poverty. The urban poor benefit from rural growth in several ways: (i) agroindustries create jobs; (ii) price of food falls; (iii) rural-urban migration slows down, leading to higher wages for unskilled urban workers; and (iv) urban growth, if not capital-intensive, generates jobs for rural workers.

[19] In this context, Lipton (1998) has summarized well the case for the rural poor: "If the potentially poor—who in Asia and Africa remain overwhelmingly rural—have access to land and jobs, they can effectively mobilize demands, political and economic, for technologies to reduce their poverty; if not, they cannot. *Policies that correct institutional, public-expenditure, political and price biases against farm and rural output, growth and employment, especially on small farms, will almost always improve the prospects for success of other anti-poverty policies, including those in the field of research and technology.*"

- Land and capital markets are not distorted by a high concentration in the ownership of natural resources (agricultural land), including unfair tenancy contracts, and repression in the capital markets (with restricted access to finance).
- Public policy on pricing, taxes, and exchange rate does not penalize agriculture and encourage or subsidize labor displacement.
- Public investment in basic education (schooling) and health care is high and used effectively; farmer literacy (schooling) and good health have great influence on farm productivity.
- Public sector support for agricultural research is strong and its transmission (extension) to small farmers is effective.
- Physical capital, like irrigation system, access roads, is adequately maintained.
- Safety nets and social assistance are available for the very poor, particularly the landless (casual) workers and rural women, in the form of workfare (public works program), microfinance, and food subsidies.
- The rural poor are directly involved in the identification, design, and implementation of programs to ensure effective use of resources and equitable distribution of benefits.

Since the rural poor are highly differentiated, it is important first to understand the conduits through which macroeconomic changes and policies can affect the rural poor. This section begins with a discussion of these conduits and policy issues. It then presents a policy framework for helping the rural economy grow and the rural poor to benefit from this growth. The three major conduits for policies to affect the rural poor are *markets* and *infrastructure* (including public services) and *transfers* (Table 4).[20]

The markets in which the rural poor participate are for products, inputs (labor and nonlabor), and finance (formal and informal sources). Several important features of these markets can affect the impact of macroeconomic policies on rural conditions, such as:

- extent of segmentation of markets due to location, natural conditions, and availability of infrastructure;
- mix of formal and informal markets;
- mix of spot and intertemporal markets;
- time response to changes; and
- role of private transfers or exchanges within extended families or communities.

The infrastructure that directly affects the productivity of the rural sector and quality of life of the poor includes economic (transport, communications, extension, irrigation) and social (education, health care, water, and sanitation). Since most of it is provided through public funding, the level of spending, cost-effectiveness, quality of service, and access of the

[20] See Behrman (1993).

rural poor to the infrastructure and public services are important factors in determining the impact on human capital and productivity in rural areas.

Transfers are both private and public, providing some insurance against the anticipated and unanticipated shocks. Most rural poor depend on private transfers between households, families, and kinship groups. The public transfers can take the form of redistribution of assets like land, employment on public works, and targeted subsidies for inputs and some consumer products. These transfers can crowd-in (supplement) or crowd-out (displace) private transfers, depending on the policy instruments and how they are used.

An important point is that these channels—markets, infrastructure, and transfers—do not work in the same way for each group of the rural poor since their links with the economy are quite different, as shown earlier.

The paper now turns to the policy framework for interventions shown in Table 5. It focuses on four groups of the rural poor, namely, small landowners who cultivate their land; landless tenants who cultivate other people's land; landless laborers who depend on casual or long-term employment in the farm or nonfarm sectors; and rural women who could be part of any of these groups. The well-being of these groups can be affected by physical assets (land and other durable assets like machinery, tools), labor (individual and household), financial assets (access to credit), and markets (prices, wages). The joint (synergetic) effects of these factors (assets and markets) can far exceed the sum of their separate effects.

The quantity and quality of land and access to it are important factors for the small landowners and tenants. Policies on land consolidation, water management, land protection, land redistribution, fair and well-enforced tenancy contracts, land settlement, and the protection of property rights, particularly of rural women, are of direct relevance here. Employment opportunities, including public works programs (workfare), and flexible labor markets are important to all groups, but more so to the landless workers (including rural women). More important, accessible basic education, health care, and potable water—at a reasonable cost and of reasonable quality—can enhance the capabilities of the rural poor and contribute to economic growth. In this context, the needs of rural women, in view of their pivotal role in society and the handicaps they often suffer, should be a central focus of policy. Physical infrastructure (capital), including the networks for irrigation, transport, and communications, is important as well because it adds to farm productivity, lowers the cost of distribution of products and resources, and makes markets accessible to the poor. All groups of the rural poor are constrained by lack of access to financial capital. Increased financial density and targeted credit (microfinance) can make a big difference to them. Finally, good macroeconomic management that helps keep inflation in check and maintains unsubsidized prices can facilitate sustained economic growth through private investment and competitive markets. Macroeconomic instability tends to harm the rural poor disproportionately. Needless to add that unfair laws or poor enforcement of the existing laws, exclusion of the poor from the decision-making processes, and pervasive rent-seeking in the public sector are no less detrimental to the well-being of the poor than they are to overall economic growth.

B. Poverty Alleviation Policies for Rural Areas

There are several sources of persistent and high levels of rural poverty in developing countries, including:

- inadequate and poor quality of agricultural land and unfair tenancy arrangements;
- unstable employment opportunities and low return on labor;
- inadequate access to and high cost of financial capital (credit) to meet the investment and consumption needs;
- inadequate and poor quality of physical and social infrastructure, particularly low public investment in education, health care, sanitation, water supply, roads, communications, and power;
- lack of adequate research and extension services for transfer of profitable agricultural technology; and
- absence of safety nets.

This section addresses these issues briefly in terms of the possible policy interventions to strengthen the antipoverty struggle of the rural poor. A major function of government is to provide an enabling environment for markets—product, resource, financial and foreign exchange—to operate without distortions. Government has to focus its attention and resources on macroeconomic management and institutional reforms necessary for the private sector (producers and consumers) to take risks, adopt new technologies, and make long-term investments. Much damage has been done to the agricultural sector, hence to the rural poor, by diverse policies of discrimination on factor and product prices and public investment in infrastructure.[21]

Land Reform Program

Landlessness or inadequate access to agricultural land is probably the most important contributor to rural poverty. However, the relationship between access to land and rural poverty is not simple. Many other factors are involved, including quality of land, availability of other inputs, access to credit and markets, opportunities for nonfarm jobs, and access to public infrastructure and support services. A high concentration of landownership and unfair tenancy contracts are a predominant feature—hence a major reason for rural poverty—in many developing countries of Asia and Latin America. On the other hand, in many sub-Saharan African countries, poor quality of land and the erosion of customary land rights have

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[21] It is in this context that the economic reform programs supported by the International Monetary Fund and World Bank in most developing countries have become both necessary and contentious, since they include measures that can have serious short- and long-term effects on resource allocation, income distribution, and absolute poverty. See, for example, Alesina (1998).

become the major obstacles to agricultural growth and alleviation of poverty. There is good evidence that both agricultural growth and poverty alleviation can be facilitated if land inequality is reduced, land rights are well defined and protected, and the (sharecropping) tenants are protected by fair and well-enforced tenancy contracts (Lipton 1998). The agrarian reform programs in China, South Korea, Taiwan Province of China, Vietnam, and in some states of India were central to agricultural growth and poverty reduction. Land redistribution—if it is not confiscatory and does not force the new owners into collectivized or forced cooperatives—has been a source of increased efficiency, expanded the demand for labor, and reduced rural poverty.[22] Similarly, tenancy almost always renders the distribution of operated land more equal and more propoor provided the contracts are fair and the necessary legal and administrative support exists for their enforcement. The resistance to land redistribution and tenancy reforms in most countries rests on two basic factors. First, it reflects the entrenched power of the rural elite—whose hold on land empowers them—in the political system. Second, self-serving evidence of failed reforms is used to denigrate agrarian reform. However, there are reasons for optimism that agrarian reform to fight rural poverty can be undertaken or more easily accepted.[23]

Rural Public Works Programs

In most developing countries, a high proportion of the rural poor is increasingly dependent on employment for wages in agriculture and outside. This is certainly true of the noncultivating households who have no access to land. Even among the cultivators, income from farming is inadequate to support their households without falling into poverty. Also, the process of depeasantization is rendering more of their population into employment-seeking workers. These largely unskilled workers have basically two choices. Find gainful employment in the rural economy (in agriculture and small-scale industries) or migrate to the

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[22] Binswanger and Associates (1995) have done a detailed and critical survey of the problems associated with land rights and their effect on efficiency and equity. There is a large body of literature on agrarian reform in developing countries. Lipton (1998) has cited much of this literature and has identified many important reasons on grounds of efficiency and equity for land redistribution and tenancy reform. Gaiha (1993) has discussed in great detail some of the design issues for successful land reform. In sub-Saharan Africa, evidence shows that land titling is both politically difficult to implement and may not necessarily improve land use and encourage long-term investment. The customary land rights could in fact be codified and long-term leasing arrangements might be a better alternative (Gaiha 1993). In some countries, where public land is available, land settlement for the landless can help a great deal in alleviating the pressure on cultivated land and increasing agricultural output and income of the rural poor.

[23] See, for example, World Bank (2000). However, some have suggested that a land-value tax on large landholdings can achieve the objectives of efficiency and equity without facing the resistance potentially involved in land redistribution.

urban (informal) economy. In the rural economy, particularly in agriculture, employment is mainly seasonal and brings low wages, leaving a large proportion of the landless households in poverty. Of course, if agriculture and agroindustries experience sustained and labor-intensive growth, the poor can find more work and the wage may also rise. The problem, however, is that seasonal variation in the demand for labor and fluctuation in food prices can adversely affect the income and consumption levels of most landless households.

It is in this context that the employment programs for rural public works have a potentially significant role in reducing rural poverty.[24] They avoid many of the difficulties involved in other programs of transfers since they have a high degree of self-targeting if the wage paid is less than the market wage and the focus of job creation is during the relatively inactive period (season) in agriculture. The employment program creates both transfer and stabilization benefits for the poor. The transfer benefit is the net income generated by employment; the stabilization benefit is in the form of reduced risk of consumption falling below the poverty level. Besides evidence shows that these programs, if properly administered (decentralized and flexible) on a sustained basis, can be cost-effective, can build and improve the rural infrastructure of value to the rural poor, and can enhance the bargaining power of the poor in rural areas (Lipton, 1998). It should be added that the public works programs for employment of the rural poor do not create the kind of opposition, particularly by the rural elite, that some other programs can or do.

Access to Credit

In all developing countries, rural people, particularly the poor with few resources, need financing (credit) to smooth out consumption, given the low level of income and its variability, and to purchase current and capital inputs well before farm incomes are available.[25] Rural credit is supplied by both the informal sources (moneylenders, merchants, landlords, friends and relatives) and formal institutions (banks and governments). The informal sector credit is high cost, reflecting the cost of administering small loans and risk of default, inadequate to meet the needs for consumption and investment, and may even lock the borrowers into mortgaging their assets (land) or labor. Governments, either directly or through the banking system, have tried to supplement or displace the informal credit in rural areas. In some countries, the involvement of formal institutions has alleviated somewhat the

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[24] Public works has a long history as a source of employment for the poor. Much evidence now exists about the favorable effects of these programs in many developing countries (Bangladesh, Bolivia, Botswana, Chile, India, and Peru) cited by Gaiha (1993), World Bank (1997), and Lipton (1998). Foreign (food) aid can lower the cost borne by the government since part of the food aid can be sold to the nonpoor and its revenue used to purchase material inputs for public works (infrastructure).

[25] See Gaiha (1993) and Lipton (1998), who have discussed at length both the theory and evidence on rural credit.

credit problems of farmers. However, the government's intervention in the rural credit market has generally revealed serious problems:

- Credit is restricted for productive inputs and to creditworthy individuals who have collateral of land or other assets.
- Small borrowers raise the cost per unit of lending with problems of adverse selection, moral hazard and enforcement of repayment.
- Credit subsidy is never targeted well since most of it is appropriated by the non-poor who may also use the loans for labor-displacing technologies.
- Rationing of subsidized credit and cumbersome procedures lead to rent-seeking, hence create inconvenience and raise the cost of formal credit to small borrowers.

In view of the failures of large-scale credit programs that have attempted targeting the poor, governments in many countries have moved to flexible and unsubsidized credit programs that work for the poor, including those who have no collateral. Decentralized and group-managed (community-based) credit programs, which lower the transactions and enforcement costs, have evidently become quite popular because of their success in reaching the diverse groups of the rural poor.[26] In many of these programs, the poor borrowers have started experimenting with small savings schemes tied to the credit system. The private financial institutions and governments are using the nongovernmental organizations (NGOs) as a support mechanism for group lending to the rural poor. These credit programs reduce both the administrative cost and the risk of default because of joint liability. The success of the targeted group-based credit, of course, depends on the size of the group, its homogeneity and cohesiveness, extent of direct participation by members, and previous experience with group activities.

Physical and Social Infrastructure

Numerous studies at both the macro and micro level have established the critical importance of physical and social infrastructure to development. Investments in physical and human infrastructure have high social and private returns, hence they make a major contribution to economic growth and alleviation of poverty. It is also accepted that, because of economies of scale, externalities, public goods characteristics, and distributional concern, government has a major role in financing and supplying infrastructure. However, there has been considerable debate about this role in terms of cost, quality, and accessibility.[27]

Three general statements can be made with confidence about the state of infrastructure in many developing countries. First, investment levels are low and not properly

[26] The problem of fungibility of loans should not be taken too seriously since the borrowers know the best use of funds and they repay the loans when due (Lipton, 1998).

[27] See Jimenez (1995) for a detailed analysis of these and related issues.

focused relative to their returns and effects. Too much is spent, for example, on expensive tertiary education and curative health care. Second, the infrastructure and related services are not cost-effective and generally of poor quality. Finally, there are great disparities in the access to infrastructure between genders, income groups, and residence (rural versus urban).

The evidence is overwhelming that the development of rural infrastructure, with public investment and private contributions, is both progrowth and propoor provided the poor get access to it. Some of the infrastructure can be developed or provided without concern about the poor since it cannot exclude them. However, some of it, particularly in education, sanitation, water supply, and health care, has to be targeted for the poor, including households and members of the same household. Evidence shows that basic education—adult literacy, primary and secondary schooling, and technical training for the youth—and public health facilities—immunization of infants, potable water supply, sanitation, and family planning—raise efficiency and reduce poverty. More important, the rural poor are willing to share the cost of infrastructure and services provided they are reliable, focused, and of reasonable quality. Recent experience in many developing countries has shown that if the rural people participate in the design, implementation, and management of the infrastructure and its services, the benefits can reach the intended group beneficiaries on a sustained basis and have the desired impact on productivity and quality of life. Governments have to establish flexible partnerships with the rural communities and private (market) sector with regard to financing, pricing, and maintenance of both the physical and social infrastructure.

Production and Transfer of Agricultural Technology

Technical progress in agriculture, particularly on small farms, determines the pace of agricultural growth but also its impact on different groups of the rural poor. There are three major components of agricultural technology: land and water development, biochemical innovations, and mechanical innovations (Lipton, 1998). Additional land for agriculture is either not available or available at high cost. The focus has to be on reducing the land loss due to soil and water depletion and unplanned rapid urbanization. In many areas of the world the more serious obstacle to productive and stable agriculture is inadequate water supply and poor management of water in the irrigation system and on the farm. Irrigation increases food supply and labor demand and stabilizes them. The role of government is to make investments in the irrigation system on both large and small scale and encourage the efficient use of water through price and nonprice policies. The biochemical innovations (fertilizers and new plant types) help increase the productivity per unit of land and the demand for labor. The mechanical innovations in many developing countries—stimulated by distorted prices, subsidized credit, inappropriate research choices, and lobbying by the rural elite—have come long before labor became scarce in rural areas. They have pushed agriculture away from labor intensity without necessarily improving the overall productivity of resources, particularly land.

Numerous studies have shown that investment in agricultural research and extension service can yield a high (real) rate of return to the society (Alston, Norton, and Pardey, 1995). The problem is that, in many developing countries, the national agricultural research and extension system does not set the right priorities, is underfunded, lacks effective coordination, and does not provide the right incentives to the professional staff in terms of salary and benefits, working conditions, and career enhancement. In addition, the agricultural extension service is usually inaccessible or of uneven quality when available to the vast majority of small farmers. It does not use the stock of specific knowledge that exists with farmers to make necessary improvements and adjustments. Government policies have also not encouraged partnership between the public and private sectors with regard to the transfer of technology to small farmers. Evidence shows that the beneficial effects of technology tend to increase significantly if the (small) farmers are organized and linked directly to the research and extension system.[28]

Food Supply and Subsidization

Nutrition is a basic necessity, hence the importance of food security for the rural poor. Some groups of the poor—small landowners and tenants—can achieve this security from their own production of staples, but others—landless workers and artisans—must earn their entitlement to food through wage income. But both groups are vulnerable (subject to high risk) due to fluctuations (variability) in production, prices, wages, and employment. The entitlement for the assetless is limited by their command over purchasing power. The effects of abrupt price changes can be far more severe on these groups than on others because food accounts for a large share of their budget and cash constraints preclude the storage of food. Of course, the problem of nutrition varies in the poor household as well, affecting the women and children usually far more than adult males. Poor and insecure nutrition, both chronic and acute, debilitates human capabilities, productivity, and well-being. While food is a private good its deficiency or insecurity has bad effects (negative externalities) on the society, hence the case for government intervention in the supply of subsidized food to the poor.

In many developing countries, governments have used one or several methods by which they have tried to supply subsidized food. The food subsidy can increase the real income of the receiver and lower the labor cost to the employer.[29] However, the rural poor

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[28] Lipton (1998) has argued that the underfunding of agricultural research at the national and international levels is *the main threat, though a hidden one, to success in poverty-reducing policies*. Also, see Byerlee (1999) for some of the issues involved in setting national agricultural research priorities for rural poverty reduction.

[29] Food subsidy, particularly if it is general, can have serious macroeconomic effects on the economy. In some countries, the subsidy on food has been a significant part of the government budget, supported by domestic revenue or money creation (feeding into inflation), international food aid, or both. Governments have often imposed the cost of (urban) food subsidy on food producers through extra imports and intervention in the pricing system—food is procured at below-market prices—with the resulting disincentive effects on food production and employment expansion.

have generally been excluded from these programs, no matter whether they include the general or targeted food subsidy. In most developing countries, or states in a country, governments have not reached the rural poor for two basic reasons. First, the rural poor are dispersed, not organized, without political clout, and almost voiceless. Second, the necessary rural infrastructure and distribution networks are lacking or inadequate.

The principles—design and implementation of food subsidies (which can take many forms)—raise many contentious issues (Besley and Kanbur, 1993; Gaiha, 1993; and Dasgupta, 1993). The general food subsidy has been very costly (Egypt and Sri Lanka, for example) and its benefits distributed disproportionately in favor of the nonpoor since their spending on food per person in absolute terms is usually higher than that of the poor. On the other hand, the targeting of subsidy has not been easy because of inadequate coverage and large leakage. Bad targeting can be fiscally costly and not reach the targeted groups or individuals. The rent-seeking behavior of both public and private agents involved in the food distribution system can become both pervasive as has been the case in many countries (Gaiha, 1993).

The three major forms of food subsidy provided to the poor, but largely in urban areas, are rationed food or quota, food stamps or the money value of food quota, and supplementary feeding programs to reduce undernutrition of targeted groups. In some countries, governments have successfully "tagged" the subsidy to observable attributes (correlated to income or need) based on gender (lactating or pregnant women), age and weight (underweight children), location (urban neighborhood or village), and type of food, (mostly consumed by the poor). Targeting of foods to the needy, in conjunction with targeting of health care and education, can be both cost-effective and have a larger impact on the well-being of the poor. Flexible distribution mechanisms, with direct involvement of the intended beneficiaries in all aspects of the system, can improve monitoring, accountability, and cost-effectiveness of the food subsidy programs.

VI. Strategic Guideposts to Reduce Rural Poverty

Macroeconomic stability, competitive markets, and public investment in the physical and social infrastructure are widely recognized as important requirements for sustained economic growth and reduced poverty. In many developing countries, the rural sector is an important—in some the predominant—part of the economy in terms of its share in the national income, employment, exports, and poverty. The fact is that a high proportion of the poor population depends on farming and related activities and its poverty is usually more severe than among the urban poor. In addition, institutions and policies have usually discriminated against the rural sector in numerous ways, thus adversely affecting the goals of sustained economic growth and poverty alleviation. The first requirement of a strategy to reduce rural poverty is to provide the enabling environment and resources for those in the rural sector that are engaged in the agricultural production and distribution system. In addition, the growth process has to work for and not against the rural poor. A sustainable process of economic growth requires reduced inequalities that in turn will reinforce the growth process itself.

Several important questions and issues can be raised as guideposts for assessing national strategies to reduce rural poverty.

(1) What are the data requirements for identifying and classifying the rural poor? The rural poor are not a homogeneous group in terms of their links to the economy and their handicaps. There are significant interhousehold and intrahousehold disparities. Therefore, sustained efforts and resources have to be devoted to gathering information—based on both the structured and participatory household surveys—about these links, handicaps, and differences. These data will also highlight the functional overlaps between different groups of the poor since most of them have somewhat similar strategies to risk management. These overlaps reflect the effects of the depeasantization process and strategies that the rural poor adopt to deal with it, including income diversification and migration.

(2) What assets do the poor need to enhance their ability to earn higher incomes? These assets can be physical (like agricultural land or other resources), financial (like access to credit), and human (like health and education). Dependence on raw labor, without access to building other assets, is the single most important source of persistent poverty. These assets cannot be acquired or built without the institutional support above the household and community level, particularly of the government. The informal transfers and exchange at the household and community level, important as they are in providing a cushion against moderate risks and shocks, cannot help build the assets with high and stable returns that the rural poor need to get out of poverty.

(3) The right to adequate land and water is a key to reducing rural poverty in many developing countries. A broad-based land reform program, including land titling on an individual or a communal basis, land redistribution, and fair and enforceable tenancy contracts, can make the small (marginal) landowners and tenants more efficient producers and raise their standard of living.

(4) The rural poor need to build and strengthen their human capital by which they can get out of poverty and contribute more to the economy and society. For this purpose, basic health care (immunization, clean water, family planning) and education (literacy, schooling and technical training), particularly for women and children, are the building blocks. The important issue here is that the health care and education facilities should be accessible at a reasonable cost. The infrastructure and services associated with health and education can be funded and maintained best if the target groups are involved in making decisions about the design, implementation, monitoring, and accountability.

(5) The rural poor cannot make the best use of their resources, including human capital, if some of the key physical infrastructure (irrigation, transport and communications) and support services (research and extension) are inadequate in both quantity and quality. As in the case of social infrastructure, the direct involvement of the poor can

make the physical infrastructure and support services both cost-effective and of reasonable quality.

(6) The informal and formal sources of finance (credit) do not respond well to the needs of the rural poor because of their high cost or inadequate accessibility. The so-called targeted rural credit programs, especially if they are subsidized, benefit the nonpoor far more than the poor. The poor want manageable credit that meets their needs at the time when they need it. The growing experiments of community-based credit programs, in which the poor have their voices heard and are subject to peer accountability, have been successful in reaching the target groups at reasonable cost.

(7) A high (and increasing) proportion of the rural poor is dependent on wage labor because it has either no asset other than the raw labor or very few in the form of meager land and animal stock. A flexible public works program can greatly help the near landless and landless in smoothing out the household consumption and avoid transient poverty. If used on a sustained basis, it can also strengthen the bargaining power of the poor in rural areas.

(8) Food is the most basic of human needs. Some of the rural poor, both at the individual and household level, suffer from undernutrition most of the time. They need support in different forms, depending on their particular circumstances. These can include food supplement programs, through schools, health care clinics, and community centers, and cash transfers. Decentralized and targeted programs seem to work the best.

Table 1. Household, Community, and Supra-community Assets Affecting Rural Poverty

Assets	Household Level	Community Level	Supra-community Level
Physical Natural	individual land, pasture, forest, water, fish (quality and quantity)	common land, pasture, forest, water, fish (quality and quantity)	commons: rivers, lakes, seas, air, watersheds
Capital	productive tools, machinery, household goods, houses and other structures	productive assets (rental markets)	productive assets (rental markets)
Stocks	livestock, food stocks	livestock, food stocks	buffer stocks
Finance	jewelry, savings, access to credit, insurance markets	access to credit, savings, insurance markets	finance and insurance markets, international finance
Human Individual	household composition and size, education, health and nutrition	labor pool	labor markets
Societal	intrahousehold ties, social ties, networks	community (civic) ties, networks	societal groups
Infrastructural	access to schools, health centers, water and sanitation, roads, transport, marketplace	water and sanitation, schools roads, storage, marketplace transport, communication	transport and communication networks, health and education infrastructure
Institutional (Political)	participation in household decision-making and sharing	participation in community activities and decision-making, security, stable governance	political participation, security, basic rights of freedom, stability of governance

Table 2. Links of Rural Poor to the Economy

Rural Poor	Products		Inputs/Factors									
			Land		Capital		Finance		Labor			
									Farm		Off-Farm	
	T	NT	O	R	O	R	F	IF	SE	W	SE	W
Cultivators owners	♦	♦	♦	--	♦	♦	--	♦	♦	♦	--	♦
tenants	♦	♦	--	♦	--	♦	♦	♦	♦	♦	--	♦
owner-cum-tenants	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	--	♦
Noncultivators laborers/employees	♦	♦	--	--	--	--	--	♦	--	♦	--	♦
artisans	--	♦	--	--	♦	--	--	♦	--	♦	♦	♦
pastoralists/ herders	♦	♦	--	--	♦	--	--	♦	♦	--	--	--

Notes: T = tradable goods; NT = nontradable goods; O = owned; R = rented; F = formal sources; IF = informal sources; SE = self-employed; W = wage work.

Table 3. Risk Management Mechanisms for the Rural Poor

Risk Strategy	Informal Mechanisms		Formal Mechanisms	
	Individual/Household	Group/Community	Market Sector	Public Sector
Reducing Risk	preventive healthcare migration diversification of income sources	actions for infrastructure and common property management		sound macroeconomic educational, public health, infrastructure, labor, and environmental policies
Migrating Risk	Land and crop diversification investment in capital (physical and human) extended families sharecropping buffer stocks	associations for occupations savings and loans associations social capital (reciprocal exchange networks)	savings and loans in banks microfinance insurance for old age and disability	protection of property rights liberal trade agricultural extension pension systems unemployment and disability insurance
Coping with Effects of Risk/Shock	sale of assets loans from money-lenders child labor reduced food consumption	transfers from social networks of mutual support	sale of financial assets loans from banks and other financial institutions	social assistance workfare subsidies social funds cash transfers

Table 4. Conduits for Macroeconomic Changes Affecting the Rural Poor

I. Markets

A. Products
1. Farm and rural nonfarm products (prices and quantities)
2. Consumer products: staples and other foods; nonfood products
3. Human resource services (prices and quantities)

B. Factors (Inputs)
1. Labor
   (i) wage rates (in rural and urban areas) for unskilled and skilled labor
   (ii) employment levels by skill
2. Nonlabor
   (i) land (access and prices)
   (ii) capital: implements (tools) and other similar inputs (prices and availability

C. Financial
1. Formal (interest rates, terms and access)
2. Informal (interest rates, terms and availability)

II. Infrastructure

A. Economic
1. Transport and communications
2. Agricultural and other extension services
3. Employment-related
4. Irrigation and water supply

B. Social
1. Education
   (i) Schooling (quantity, quality and cost)
   (ii) Training (quantity, quality and cost)
2. Healthcare (quantity, quality and cost of services)
3. Sanitation and Hygiene
4. Transfers (private and public)

Table 5. A Framework for Policy Intervention for the Rural Poor

Rural Poor	Land	Labor	Human Capital	Physical Capital	Credit	Prices and Markets
Small Landowners	land consolidation; land supplement; land protection;	farm and nonfarm work; workfare	access to schools and basic health; potable water supply (quality and cost)	irrigation; transport; communications; (quality and cost)	financial density; targeted credit; pooled credit	market information; unsubsidized prices; access to storage; stable exchange rate; low inflation
Landless Tenants	tenancy right; rent protection; land redistribution and/or land settlement	same	same	same	same	same
Landless Laborers	transmigration/ resettlement	workfare	same	same	microfinance (targeted)	price stability of food staples
Rural Women	property right protection	workfare	(same) plus family planning (accessible)	same (accessible)	microfinance (targeted)	same

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