

Millennium Development Goal  
of halving poverty  
in Asia and the Pacific Region  
Progress, prospects and priorities

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**OCCASIONAL PAPERS**  
Knowledge for development effectiveness

Enabling the rural poor to overcome poverty



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**Millennium Development Goal  
of halving poverty in the  
Asia and the Pacific region**

Progress, prospects and priorities

by

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Enabling the rural poor to overcome poverty



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## ACRONYMS

<b>BRAC</b>	Bangladesh Rural Advancement Committee
<b>CPRC</b>	Centre for Chronic Poverty Research
<b>IDPs</b>	internally displaced people
<b>IRDP</b>	Integrated Rural Development Programme
<b>JRY</b>	Jawahar Rozgar Yojana
<b>MADP</b>	Mewat Area Development Project
<b>MDG</b>	Millennium Development Goal
<b>MFI</b>	microfinance institution
<b>R&amp;D</b>	research and development
<b>RD-12</b>	Rural Development Project-12
<b>RNF</b>	rural non-farm activities
<b>ROR</b>	rate of return
<b>SHARE</b>	Society for Helping to Awaken Rural Poor through Education (India)
<b>SHG</b>	self-help group
<b>TSPI</b>	Tulay sa Pag-unlad.In
<b>TVE</b>	town and village enterprise
<b>UPA</b>	United Progressive Alliance

## FOREWORD

Despite the impressive gains made by the Asia and the Pacific Region in achieving high economic growth and poverty reduction over the last three decades, this region still accounts for two thirds of the world's poor. Thus success in achieving the Millennium Development Goal (MDG) of halving poverty by 2015 depends to a large extent on this region's performance in further reducing poverty in the next ten years.

Several studies have shown that the goal of halving poverty by 2015 will be achieved by the region, as well as by many countries within the region. However, these studies are based on projections of past trends and do not consider how agricultural growth, trade and institutional factors influence poverty through their effects on overall income growth. Therefore, they do not offer useful policy insights.

This study, based on an econometric analysis, was commissioned to fill that gap and to deepen our understanding of policy changes in attaining the MDG of poverty reduction. It has provided a number of useful findings and policy implications. First, the actual economic growth rate in East Asia exceeds that required to achieve the MDG, whereas in South Asia economic growth needs to accelerate. Second, it has clearly shown that agricultural productivity growth makes a substantial contribution to poverty reduction. However, actual rates of growth are significantly lower than those required, both in East and South Asia. Third, moderate economic growth with a reduction in income inequality will achieve substantial poverty reduction. This is a significant finding, given the rising income inequality experienced by many countries in the region. Fourth, even modest improvements in institutional quality (transparency and accountability in local institutions, rule of law, political stability) are associated with significant positive effects on income and consequently on poverty reduction. This is also a crucial finding in view of IFAD's strong emphasis on institutional development and strengthening at the grass-roots level.

Preliminary findings of this study were shared with divisional staff at a retreat in December 2004 to solicit their comments and suggestions for improvement. The highlights of the study were presented at a round table during the IFAD Governing Council meeting of 17 February 2005, which was attended by many Governors and other delegates.

This full version of the paper is being published in order to share the study findings with a wider audience within and outside IFAD. We believe that it will be of interest to policy-makers, development practitioners, academics and civil society, and we would like to thank the authors for their excellent contribution.

With this paper, the Asia and the Pacific Division is initiating an occasional paper series, which will publish the work of divisional staff and of our partners on emerging thematic issues. We believe that this will offer IFAD staff the opportunity to share their knowledge and experiences with a wide audience. In order to ensure quality publications, all papers will be reviewed by an editorial team consisting of members from within and outside IFAD.

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## EXECUTIVE SUMMARY

The Millennium Development Goals (MDGs) draw attention to the deprivation afflicting large sections of the population in the developing world, and to the imperative of reducing this substantially by 2015. Although the eight goals are interrelated, the first is fundamental – that of halving the proportion of extremely poor people between 1990 and 2015. Achievement of this goal in the Asia and the Pacific Region – particularly in South Asia – is of considerable importance: in 1990 the region accounted for 466 million of the world's 1.2 billion poor.

Extreme poverty in the developing world is overwhelmingly rural. Even by 2025, when the majority of the world's population will likely be living in urban areas, most of the dollar poor will still be rural. As a result, rural and agricultural development will have a vital role to play in poverty reduction. This paper reviews progress in attaining this goal, assesses the prospects of achieving it by 2015 and identifies priorities in accelerating poverty reduction in Asia and the Pacific.

The main findings of the analysis are as follows:

- In East Asia, the actual growth rate exceeds that required to achieve the MDG of halving poverty, whereas in South Asia it falls short of the required rate. Thus the need for growth acceleration in South Asia is greater.
- Required rates of agricultural growth are higher than actual rates in both East Asia and South Asia.
- Moderate growth, in combination with a reduction of inequality in income, will have a substantial impact on poverty reduction at subregional and country levels.
- Even modest improvements in selected indicators of institutional quality (such as 'voice' and accountability) will have a substantial effect on poverty by raising incomes. While historical and geographical factors shape institutional quality, human capital has an independent, positive effect on this indicator.

Some key elements of a pro-poor growth strategy in a rapidly globalizing environment include: a credible and sound macro policy regime; an increase in agricultural productivity to sustain overall growth – especially in less-favoured areas with a heavy concentration of poor people; effective land rights for women; diversification of rural economies through non-farm opportunities; and easier access to markets, credit and other financial services by disadvantaged groups (such as tribal peoples and women). Transitional or incremental institutional reforms, on the other hand, may pave the way for deeper and more extensive reforms over a longer period. Thus a rigid approach to institutional reform may not be desirable. Distributive conflicts and coordination failures could be avoided through building public/private partnerships. Greater transparency and accountability on the part of local institutions could trigger significant changes in policies and their implementation, with more favourable outcomes for the poor.

Given the above, a re-examination of IFAD's strategic concerns in the Asia and the Pacific Region – with a sharper focus on institutional quality improvements – is a worthwhile undertaking. Greater attention should also be devoted to the assessment of poverty impacts, taking into account the correspondence between locally appropriate poverty indicators and the dollar-a-day criterion. Finally, given the devastation resulting from ethnic clashes, conflict prevention has assumed greater importance. Thus it is necessary to assess whether constitutional and other safeguards, devolution of power, preferential job policies, large-scale vocational training, rural public works and speedy relief efforts that mobilize local communities would help minimize the risk of ethnic and other conflicts.

## I. INTRODUCTION

At the Millennium Summit held in New York in 2000, world leaders committed the global community to halving the proportion of people living on less than a dollar a day and of those who suffer hunger by 2015. In the United Nations Millennium Declaration, they also pledged to achieve other Millennium Development Goals (MDGs) encompassing education, gender equality and women's empowerment, health, control of communicable diseases – such as HIV/AIDS and malaria – and environmental sustainability (IFAD, 2003). These goals aim to institute a broader and more inclusive process of human development (United Nations – UN, 2003).

The MDGs are ambitious. They represent clear and direct challenges both to individual countries and to the global community. Their achievement in the Asia and the Pacific Region – especially in South Asia – is of considerable importance because of the pervasiveness of poverty there, accounting for 466 million of the world's 1.2 billion poor in 1990 – some 41.5 per cent (World Bank, 2004; Thapa, 2004). Millions of poor people would be freed of abject deprivation and able to lead lives of dignity. Fewer children would be stunted by hunger. Many more women could broaden their spheres of participation and contribute more substantially to development activities. There would be greater protection from preventable diseases and better access to health care. All sections of society – government, the private sector and civil society – would work towards protecting and sustaining the natural environment (UN, 2003).

Although the diverse MDGs are interrelated (such as the reduction of poverty and of infant and child mortality rates), and progress in achieving them must be assessed comprehensively for a focused and coherent treatment of the most fundamental goal, the present paper concentrates on the goal of halving the proportion of the 'dollar poor', i.e. those living on less than a dollar a day.

Extreme poverty in the developing world is overwhelmingly rural. In 1990 some 900 million of the 1.2 billion dollar poor lived in rural areas in developing countries, depending mainly on agriculture for their livelihood. Even in 2025, when it is expected that the majority of the world's population will be living in urban areas, 60 per cent of poverty will still be rural poverty, and most of the dollar poor will still be rural. Thus rural and agricultural development have a vital role to play in poverty reduction. A key element is enabling the rural poor to improve their productivity and increase their incomes. In the overall strategy, they must be viewed not as beneficiaries, but as empowered agents of change (IFAD, 2003).

The objectives of this paper are to review progress in attaining the MDG of poverty reduction, assess the prospects for achieving it by 2015 and identify priorities for accelerating the process. On the basis of the analysis undertaken, a case is made for the primacy of institutional reforms. Specifically, even modest reforms are likely to have a substantial pay-off in terms of higher incomes and poverty reduction (Gaiha and Imai, 2005). In the final section, some issues and concerns are identified from IFAD's perspective for further discussion.

## II. PROGRESS IN ACHIEVING THE FIRST MILLENNIUM DEVELOPMENT GOAL IN THE 1990s

According to a recent assessment, during the 1990s the head-count ratio<sup>1</sup> fell from 34 to 24 per cent in Asia and the Pacific (UN, 2003). Although it left 768 million people still living on less than a dollar a day, it represented significant progress. A number of the most successful economies, all in East or South-East Asia (including China, Indonesia and Viet Nam), have already achieved their targets. However, progress has been much slower in South Asia, with the exception of India, where the 1990s saw a significant reduction in poverty.<sup>2</sup>

There have also been marked variations in the speed of poverty reduction over time. In Indonesia, for example, poverty rose sharply during the financial crisis, but fell subsequently.

During the 1970s-80s, many countries achieved remarkably high growth rates, accompanied by sizeable reductions in poverty (particularly in China, Indonesia and Thailand) (UN, 2003). In some countries growth rates were modest, while in others they were remarkably high. But growth in agriculture translated into poverty reduction primarily because it was sustained over two decades: economic growth steadily expanded employment and increased productivity.

The experience of the 1990s was different because of the financial crisis in East Asia and transition problems in Central Asia. As a result, some countries, such as Indonesia and the Republic of Korea, recorded an increase in poverty. Nevertheless, the proportion of dollar poor in the region (excluding Central Asia) declined from 34 per cent in 1990 to 26 per cent in 1998 – a reduction of over 147 million.

There were wide variations in growth rates. Only a few countries, mainly in East and South-East Asia, achieved growth above 4 per cent, and almost all of the ‘miracle’ economies suffered a slowdown linked to the financial crisis, but managed to bounce back to some extent.

1 These estimates are based on the 1993 purchasing-power-parity adjusted estimates of the proportion of populations living on less than a dollar a day. For a review of the methodology, see Gaiha (2003).

2 This assessment is debatable, as the National Sample Survey data for 1993 and 1999, on which it is based, are not directly comparable, owing to changes in the sample design for 1999. For a recent review questioning the assessment, see Sen and Himanshu (2004). With their adjustments, the reduction in poverty is barely three percentage points in the period 1993-99.

### III. GROWTH, INEQUALITY AND POVERTY

Available evidence points to a strong link between agricultural growth and poverty reduction. However, the extent to which growth translates into poverty reduction varies from one country to another and by region. During the 1990s, the highest poverty elasticities of growth were in the Philippines and Malaysia (from -1.7 to -2.0), followed by Bangladesh, the Lao People's Democratic Republic, India and Viet Nam (from -0.8 to -1.0), with much lower figures in China and Thailand (UN, 2003).<sup>3</sup>

During the 1990s, many countries recorded an increase in income inequality. This broadly reflected the shift from a rapidly equalizing period of rural and agricultural development to one centred more on urban areas and driven by export industries and services, while most workers continued to be dependent on agriculture.<sup>4</sup>

If slow growth is accompanied by greater inequality, as in some countries in Central Asia, South Asia and the Pacific, even a relatively small change in inequality can affect the extent to which the poor will benefit from such growth. Better poverty outcomes occur when significant growth is accompanied by a slight increase in inequality, as was the case in Bangladesh, China and India.

A third possibility is significant growth acceleration, combined with a reduction in inequality. In that case, poverty reduction is likely to be high. However, this has not been observed in any of the growth spells recorded for the Asia and the Pacific Region. The nearest example is Viet Nam, where land and market reforms in the late 1980s provided the basis for high growth with only a slight increase in inequality. An agriculture-based strategy matched a similar success in China from 1978 to 1988. Thailand was yet another close example in the 1970s and 1980s.

For poverty reduction, some forms of inequality matter more than others. Important ones include inequality in the distribution of assets, especially land, human capital, financial capital and access to public assets such as rural infrastructure. The fast-growing economies of East and South-East Asia had the advantage of low asset inequality compared to other Asian and Pacific economies. In some countries, this followed land reforms and a better distribution of educational services. Broadly speaking, a pro-poor agenda should include measures to moderate current income inequality while facilitating access to income-generating assets and the promotion of employment opportunities for the poor.

3 In a recent contribution, Adams (2004) reports that, while economic growth reduces poverty in developing countries, the rate of poverty reduction depends on how economic growth is defined. When growth is measured by changes in survey mean income, the growth elasticity of poverty is higher than that obtained from growth measured by changes in GDP per capita.

4 In fact, in some South Asian countries (e.g. Bangladesh, India and Pakistan), the gap between rural and urban poverty widened during the 1990s (Thapa, 2004).

## IV. VULNERABILITY, CHRONIC POVERTY AND DISADVANTAGED GROUPS

People living at or near the poverty line are frequently exposed to various shocks related to crops, prices and illness. Poverty is not just a matter of deprivation, but also of vulnerability to such shocks. This was illustrated dramatically during the recent East Asian crisis. Some countries were affected more seriously than others, particularly Indonesia and Thailand, which were exposed to international financial markets and had heavy debts in dollars, yen and other currencies. The crisis did much less damage in South Asia, as these economies were less exposed to world markets and large agricultural sectors helped insulate the poor. China, too, escaped, because its currency was not convertible and, together with its large foreign exchange reserves, effectively insulated the banking system. Other shocks that can trigger downward mobility of the vulnerable – sometimes into persistent poverty – include social instability, loss of markets, crop failures, drought, floods and other natural disasters. Individual households can be hit by the illness or disability of the principal earner. A broad typology of the vulnerable and persistently poor follows.

### Minorities and indigenous people

Indigenous minorities are also linguistic and religious minorities, living in remote regions. In China, for example, members of more than 50 ethnic minority groups are concentrated in poor, remote and mountainous regions. They represent less than 9 per cent of the total population, but about 40 per cent of those in a state of absolute poverty. A comparison of the living standards of 53 ethnic minority groups in Viet Nam and those of the Kinh majority show significant disparities and severe discrimination. Extreme minorities make up 29 per cent of the poor, but only 14 per cent of the population. Moreover, most people belonging to ethnic minorities remained trapped in poverty during a period of otherwise pro-poor growth: while the poverty headcount among the majority population fell from 54 to 31 per cent over the period 1992/93-1997/98, it only dropped from 86 to 75 per cent among minorities (Centre for Chronic Poverty Research – CPRC, 2004).

Throughout South Asia, the links between chronic poverty and ascribed status are played out through the persistent, severe poverty and exclusion experienced by both tribal (indigenous) and low-caste peoples. Both groups continue to face discrimination. In India, for example, scheduled tribes suffer highly limited and declining access to natural resources, especially the forests upon which their livelihoods are based. Most scheduled caste families are functionally landless and work as agricultural labourers.<sup>5</sup>

5 In India, survey data for 1993-1994 show that per capita incomes among SCs were lower than the state averages (24 percent in Andhra Pradesh, and 41 per cent in Kerala). In the eastern state of Orissa, more than 24 percent of the population consisted of STs, as compared to 9 percent in the country as a whole. 92 percent of the households belonging to a ST in rural southern Orissa were poor - twice the state poverty rate and three and a half times the national poverty rate (CPRC, 2004).

### **Women and girls in chronic poverty**

Where gender-based discrimination is pervasive and often severe, women and girls are the most at risk for persistent poverty. Parental investment in children is strongly affected by localized norms of entitlement. In many parts of China and South Asia, girls in poor households are less likely than boys to receive adequate general care, education, nutrition and health care. The cycle of maternal and child malnutrition, morbidity and mortality tends to perpetuate poverty over generations – a vicious cycle of low investment in women and in girls. Gender discrimination in access to facilities and services exacerbates this process further.

Premature and preventable death, due to various forms of deprivation, is the most fundamental manifestation of chronic poverty. Millions of young girls and women are not present in this world because of selective abortion, infanticide, overwork, ill health and neglect. Estimates of the total number of missing women vary from 60 to 113 million. Eighty million of the most plausible estimate of 101.3 million missing women (about 79 per cent) are Chinese and Indian. There has been a marked improvement in the sex ratio in Bangladesh and a small overall improvement in India. Worsening survival rates among infants and girls have partly offset the improvements in survival among older women.<sup>6</sup>

In China the situation is deteriorating. Of the 100 000-160 000 orphans and abandoned children in 1999, 90 per cent were girls. Second and subsequent daughters are at high risk for abandonment or abortion based on a combination of a strong preference for a male child and the one-child policy, which allows rural households to have a second child if the first-born is a boy (CPRC, 2004).

### **Ecological characteristics of spatial poverty traps**

Over half the world's rural poor live in areas of low agricultural potential. Half a billion people in developing countries live in arid regions with no access to irrigation systems; another 400 million on land where the soil is unsuitable for agriculture; 200 million in mountainous and hilly regions; and more than 130 million in fragile forest ecosystems. These regions are also highly vulnerable to climate fluctuations, pests, diseases and man-made natural disasters, which render food supplies precarious (CPRC, 2004).

In Bangladesh, panel data for 1987-88 and 2000 (of the same set of households) show that 15 per cent of the households that slipped into poverty had experienced a shock related to a natural disaster. Poverty rates are highest in extremely low-lying areas that are flood prone, including chars (river islands that disappear seasonally), and in tribal areas where social and geographical disadvantages overlap (Sen, 2003).

In semi-arid areas of rural Andhra Pradesh and Maharashtra, India, over one

6 Deaton and Dreze (2002), for example, show that improvements in income poverty went hand in hand with a decline in the female-male ratio among children, from 945 girls per 1000 boys in the 0-6 age group in 1991 to 927 girls per 1000 boys in 2000.



fifth of the population was poor in all nine years from 1975/76 to 1983/84, while 60 per cent were poor in at least five of the nine years. Further analysis of this data set suggests that even relatively affluent households are highly vulnerable to long spells of poverty when severe crop shocks occur (Gaiha and Deolalikar, 1993; Gaiha and Imai, 2004).

Available evidence for China suggests that chronic poverty is greatest in rural areas and heavily concentrated in the north-west, west and south-west, away from rapidly-growing coastal regions. Such areas are often quite remote from growth centres, of low agro-ecological potential and have large ethnic minority populations (CPRC, 2004).

### **Politics, rights and conflicts in spatial poverty traps**

Politically, concentrations of very poor people are associated with a less organized civil society, less responsive government and limited NGO presence. Consequently, pockets of chronic poverty exist where socio-political exclusion – often based on language, identity or gender – is pervasive.

Civil wars frequently occur in countries in which human and economic development is minimal. Borderlands and other regions typified by weak state presence provide fertile ground for the mobilization of militant groups and organized criminality. The powerlessness of the poorest makes them unlikely drivers of conflict, but the most likely to suffer its worst effects.<sup>7</sup> Conflict creates refugees and internally displaced people (IDPs) – now in the millions in developing countries. IDPs are a significant group of the chronically poor. In Sri Lanka, for example, the total number of IDPs (including those in welfare centres) is 650 000, equal to roughly one third of the population currently living in conflict-affected areas. In one affected area alone, it is estimated that as much as 80 per cent of the current population consists of displaced people, who arrived there as part of a major influx from adjoining conflict areas (CPRC, 2004).

7 For an insightful analysis of how ethnic conflicts are triggered, see Bardhan (2005). Of considerable interest is the elaboration of the role of rumours, information cascades and herd behaviour in communal riots.

## V. PROSPECTS OF ACHIEVING MDG

### **Recent reviews**

Assessment of the feasibility of achieving the MDG of poverty reduction is far from straightforward. It requires a careful analysis of the initial conditions, growth prospects and changes in inequality.

Of the available assessments to date, a recent evaluation for the Asia and the Pacific Region is particularly relevant (UN, 2003).<sup>8</sup> While it has the advantage of country-specific projections for the region, the methodology used is simple.

When extrapolating a trend in the head-count ratio to 2015, an optimistic assessment is obtained. All of the selected countries are expected to achieve the MDG goal. However, given the population projections, an unacceptably high number will continue to live on less than a dollar a day (UN, 2003).

Of course, these are estimates – the actual outcomes may be worse. For example, agricultural growth may suffer because of declining terms of trade, shocks to the global economy, financial instability or regional conflicts.

A proactive stance by governments in stimulating growth, reducing inequality and protecting the vulnerable is imperative, as is a more inclusive process of development. Such a strategy will assume greater significance as poverty levels decline, and governments and others will need to tackle pockets of persistent and acute poverty.

### **New evidence**

#### **Analytical framework**

First, a brief exposition of the analysis undertaken (and the simulations based on it) is presented (Gaiha and Imai, 2005).

While earlier reviews offer insight into the feasibility of achieving the MDG of poverty reduction, their perspectives or methodologies are not appealing. The study by Demery and Walton (1999), for example, relies on a somewhat rigid classification of policy stance into 'good' or 'bad', and neglects the role of agriculture. The UN (2003) study relies on historical averages or trends in poverty reduction and their extrapolation.

<sup>8</sup> Among other studies, an insightful assessment that analyses the trade-offs between growth and inequality in achieving the MDGs is found in Demery and Walton (1999).

A more detailed analysis is thus necessary, taking into account the centrality of agriculture in overall growth, roles of institutions, openness/globalization in growth, and the effects of growth, inequality and institutions on poverty.<sup>9, 10, 11</sup> Of particular interest is the interaction between growth and institutions (for example, do institutions cause growth or vice versa?), and whether globalization shapes institutions through better economic performance or whether globalization is itself shaped by institutions. As there is a vast literature presenting conflicting evidence, it is necessary to address these concerns and then assess the impact on poverty of growth, inequality and institutions in an integrated framework. For a review, see Gaiha and Imai (2005).

We have used an overall institutional quality measure. All scores lie between -2.5 and 2.5, with the higher scores being the better ones (Kaufmann, Kraay and Zoido-Lobaton, 2003).

As such an analysis had not been undertaken in the context of the MDG of poverty reduction, a brief exposition of the framework that helped specify a model for the analysis is given below, and a schematic illustration is presented in Figure 1. The state of knowledge of these links, distilled from the recent literature, is reviewed in Gaiha and Imai (2005). Guided by this knowledge, a model is specified and estimated by cross-country data.

The model comprises three sets of relationships. First, we identify and assess the determinants of income inequality (such as land inequality), institutions (historical and geographical factors) and openness (e.g. of institutions, geographical factors) Here we have drawn upon Acemoglu, Johnson and Robinson (2001, 2002); Rigobon and Rodrik (2004); Rodrik, Subramanian and Trebbi (2002); and Bardhan (2005). In the second stage, we focus on the determinants of per capita income (such as lagged agricultural income per capita, openness, geographical factors and institutions). Finally, we analyse the determinants of the head-count index of the dollar poor (such as income, income inequality, institutions and geographical factors).

This model is estimated using a database compiled from FAO, the World Bank, the United Nations and various recent research studies.<sup>12</sup>

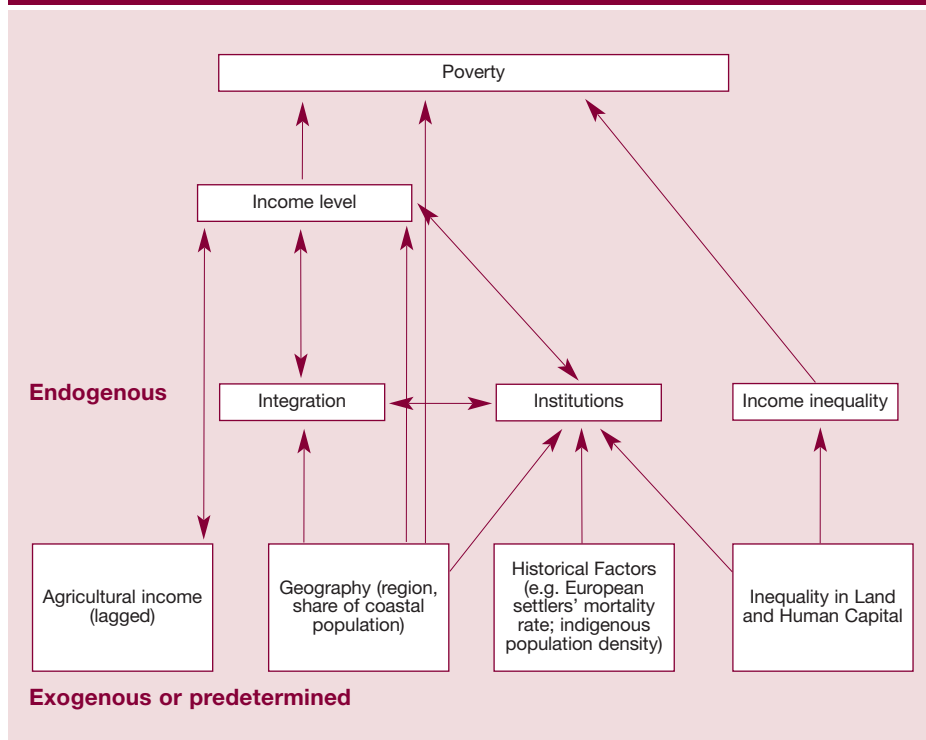
9 Following North (1981), institutions refer to a "set of rules, compliance procedures, and moral and ethical behavioural norms designed to constrain the behaviour of individuals in the interests of maximizing the wealth or utility of principals" (pp. 201-202). For a review of the role of institutions in rural poverty reduction along these lines, see IFAD (2004).

10 In another recent assessment (Thirtle, Lin and Piesse (2003)), some of these concerns are addressed with a focus on agricultural productivity. This is a rich and detailed analysis of the role of agriculture in mitigating poverty. But two limitations should not be overlooked. One is the absence of institutions as a key link between endowments and income. And the second is a lack of careful attention to the specification of a few relationships (e.g. the Gini coefficient of income distribution does not take into account inequality in physical and human capital). For an attempt at addressing these limitations in an appropriately specified econometric model, see Gaiha and Imai (2005).

11 Although shares of agriculture vary within the Asia and the Pacific Region, centrality of agriculture in overall growth as a general proposition cannot be disputed.

12 For details of European settlers' mortality rates and the Gini coefficients of land distribution, see Annex Table 1. See also the exchange between Albouy (2005) and Acemoglu, Johnson and Robinson (2005) on the reliability of these estimates. As the original results of the latter involve robust to alternative data sets, we have relied on their estimates of European settlers' mortality rates as instruments for institutional quality. Some refinements/extensions could also be carried out along the lines of Bardhan (2005).

**Figure 1: Determinants of Poverty**



Adapted from Rodrik, Subramanian and Trebbi (2002), Hoff (2003) and Bardhan (2005).

The five institutional quality indicators include: 'voice' and accountability, political stability and absence of violence, control of corruption, rule of law and an aggregate index of institutional quality. Their salient features are described in Table 1.

Simulations are carried out to deepen our understanding of policy choices in attaining the MDG of poverty reduction. These include enhancing agricultural productivity and overall growth, reducing income inequality and making institutional improvements.

## Results

The detailed simulation results are given in Tables 2-5.

- The poverty elasticity with respect to GDP per capita ranges from -0.69 to -0.92, depending on the institutional quality variant. Corresponding to these, the required growth rates range from 3.01 to 4.02, as compared with the actual growth rate of 0.86 in the complete sample over the period 1985-98. In East Asia, the actual growth rate exceeds that required under different institutional variants, while in South Asia the actual rate is lower than what is required, in all cases. The need for growth acceleration in South Asia is thus greater.
- Agricultural income per capita, through its contribution to GDP per capita, makes a substantial contribution to poverty reduction. The required rates of agricultural growth are, however, markedly higher than the actual rates for the entire sample, as well as for both East Asia and South Asia. This is not surprising given the low rates of agricultural growth (0.80 percent per annum in South Asia, as against a required rate of growth of over 4 percent).

- The elasticities of the head count ratio with respect to the income Gini are much higher than the corresponding income elasticities. On two alternative historic growth rates of per capita GDP, 1.76 percent (over the period 1960-90) and 0.86 percent per annum (over 1985-98), the required reductions in the income Gini cover a large range, from about -5 percent to -39 percent.
- We have carried out additional simulations at the country level. On the assumption of the historic rate of growth of income continuing over the period 1998-2015, and an unchanged Gini, 4 out of the 7 countries selected, such as China, Korea, Thailand and India, will achieve the MDG of poverty reduction. With 10 and 20 percent reductions in the latter, the head-count ratios will be lower in most cases. In fact, with a 20 percent reduction in the income Gini, Bangladesh will achieve the MDG.<sup>13</sup>
- Since institutional improvements evolve over time, in complex ways, extensive experiments were carried out. Two observations are made here. One is that institutional quality impacts poverty through income, and not directly. Also, after allowing for the variation in the index of openness due to institutional quality and geographical factors, openness ceases to have any effect on income. Some elaboration may be helpful at this point: (i) Most surveys report mixed evidence on trade-growth and poverty relationships. (ii) The few studies that take into account the dependence of openness on institutions and country size, confirm a weak causal effect of openness on income (notably Rodrik and his collaborators) and primacy of institutions. Our results, based on three different measures of openness, are consistent with this view.<sup>14</sup> This is, of course, subject to further validation, because no account is taken of long-term capital movements.
- What is interesting to note from the simulations is that even modest improvements in institutional quality are associated with significantly positive effects on income and, consequently, on poverty. For example, with the voice and accountability index assumed to take on the average value of this index among the top 30 performers, and the historic growth rate of agricultural income, the head-count index will have marked reductions relative to the base line, in China, Bangladesh, India, Sri Lanka and Indonesia (Vietnam is not considered as it is not included in the institutional data base). Both South and East Asia record substantially lower head-count values for 2015, relative to the base line.
- While historical and geographical factors have shaped institutional evolution, an alternative formulation points to the importance of human capital in influencing institutional quality which, in turn, has a positive impact on income. Earlier work has emphasized the impact of education on agricultural productivity but the causal links need further investigation. More specifically, it is necessary to examine whether education impacts on productivity directly and/ or indirectly. If the evidence in Gaiha and Imai (2005) is anything to go by, the indirect link via institutions cannot be ruled out.<sup>15</sup>

13 As Sri Lanka is an 'outlier', with a head-count index considerably lower than that predicted by its income, a cautious interpretation of country-specific results is necessary (Gaiha and Imai, 2005).

14 These measures comprise an instrumented share of trade in the GDP, Sachs-Warner and Frankel-Roemer indices. An important difference between our measure of openness and the Frankel-Roemer index is choice of instruments – in particular the use of several different institutional measures in Gaiha and Imai (2005) in instrumenting trade share.

An issue of considerable importance is whether the institutional quality measures used here are appropriate. Glaeser *et al.* (2004) are highly skeptical, on the grounds that they represent “ex post outcomes, highly correlated with economic development, rather than political constraints per se” (page 10). Some aberrations are cited (for example, Singapore) to illustrate the lack of a multiparty system but with secure property rights. Using other indicators of constraints on executive authority (such as proportional representation, judicial independence and constitutional review), they argue that institutions do not matter in growth.

In another important contribution, Bardhan (2005) points to an excessive preoccupation with institutions that safeguard secure property rights and a neglect of those that prevent coordination failures. In particular, he emphasizes the important role of the state, both as a catalyst and a coordinator in financial markets. An example would be the role of the state in East Asian development, through subtle but decisive interventions in the capital market in promoting and channeling industrial investment, underwriting risks and guaranteeing loans, and establishing public development banks. In Bardhan’s (2005) somewhat narrowly-focused econometric analysis, the rule of law and weak political rights instrumented by measures of state antiquity – which is designed to capture the institutional residues of a long history of state structure and bureaucratic culture even after the colonial interregnum and ethno-linguistic fragmentation – are significant determinants of income.

Both are persuasive but incomplete critiques. While Glaeser *et al.* (2004) assert the unimportance of institutions in growth, on the basis of a few selected indicators, Bardhan’s (2005) analysis does not go beyond identifying a few additional sources of exogenous variation in institutional quality. In any case, the primacy of institutions needs to be carefully interpreted for the following reasons: one is the fuzziness of institutional quality, which cannot be measured precisely. Consequently, all institutional measures (and not just those used in the present analysis) are likely to be problematic. The second reason is that even if there is a unidirectional causal link to institutional quality, such as from a set of exogenous factors (historical, geographical, human capital), and from that to income, institutional quality is merely a link in this causal chain. This raises a concern regarding mechanisms to trigger improvements in institutional quality. And in the case that causality may run both ways (in that institutions and income influence each other or both are simultaneously determined), identification of trigger mechanisms becomes harder. For a coherent critique of recent work on institutions along these lines, see Przeworski (2004). So, while we provide evidence of the importance of institutions in poverty reduction through higher incomes, the primacy of institutions rests on a link in a complex chain of causation.

15 At the same time, reverse causality cannot be ruled out. In particular, Glaeser *et al.* (2004) argue that human capital has a direct effect on income and a secondary effect on institutions. The latter in turn could feed back into higher income. Rigobon and Rodrik (2004), however, point out that the effect of income on institutions is relatively weak. In addition, the opening up of the economy may unleash forces that challenge the authority of landlords, corrupt politicians, bureaucrats and the currently subsidized rich, and pave the way for greater transparency and accountability in public policies (Bardhan, 2005). But empirical evidence supporting this view is limited and patchy.

## VI. TOWARDS A STRATEGY OF PRO-POOR GROWTH AND INSTITUTION-BUILDING

What the preceding analysis points to is the important role of agriculture in the overall growth process and in poverty reduction. Agriculture is a major source of employment and foreign exchange earnings, and its linkages with other sectors generate further employment and income for the rest of the economy. Although its share of GDP has fallen over time (for example in South Asia from 32.9 per cent in the 1980s to 27.68 per cent in the 1990s), it continues to account for a sizable share of employment (declining from 62.57 per cent in the 1980s to 60.34 per cent in the 1990s).<sup>16</sup> However, as economies grow, non-farm activities will assume greater importance.

From the perspective of equitable growth, the overall policy environment must induce greater participation in the development process by the rural poor, women and other disadvantaged groups, which are usually left out of the decision-making arena. Conditions must be created to enable these disadvantaged categories to have greater control over their lives, improve their access to assets, markets and financial services and participate in decision-making on issues that affect their well-being. Much depends, however, on the institutional framework (i.e. the social, economic and political organizations and the rules that govern their functioning) and the feasibility of improving the quality of that framework. Finally, the vulnerability of rural populations to natural and man-made shocks – especially for those located in mountainous and remote areas – is a major challenge that must be addressed as part of a broader effort to mitigate human insecurity. A distillation of recent experience is given below.

### Macro policy framework

A credible and sound macro policy regime is an important prerequisite for growth. From this perspective, the rapid increase in public debt in the second half of the 1990s in emerging Asian economies is a serious concern (China, India, Indonesia, Korea, Malaysia and the Philippines). The debt has gone from some 40 per cent of aggregate GDP in 1996 to about 65 per cent at present.<sup>17</sup> Although some countries have substantially reduced their foreign debt, domestic public debt has grown. This is linked to recapitalization of banks following the Asian crisis and to efforts to stimulate domestic demand rather than relying heavily on volatile export markets. The borrowing has boosted growth, but at a cost over the long term. High debt levels maintain borrowing costs at a high level, discouraging private investment and limiting the flexibility of fiscal policy.<sup>18</sup> The latter is a particularly serious concern in India, as it reduces social and infrastructure spending to sustain growth and eliminate poverty.

16 Computed from FAOSTAT and the World Bank's World Development Indicators (Gaiha and Imai, 2005).

17 Based upon a speech delivered by D. Burton, Director of the Asia and Pacific Department, International Monetary Fund, at the Reserve Bank of India, New Delhi, 21 October 2004.

18 Public debt, including borrowings by state governments, is 81 per cent of GDP.

What is reassuring, however, is that fiscal reforms can be implemented in a period of strong growth to reduce fiscal vulnerability.<sup>19</sup> Tax reforms can both raise revenues and improve incentives to save, invest and work. On the other hand, judicious cuts in unproductive expenditure can release resources for public and private investment in a credible and stable macro policy regime.

A second important concern is the sequencing of policy reforms. While generalizations are risky, a few tentative remarks can be made on the basis of recent evidence (Bardhan, 2002).

- As new income-earning opportunities are unleashed, it is imperative that the terms of trade do not move against the rural sector, and that the poor are in a position to seize such opportunities. Indigenous populations living in remote and inaccessible areas are bypassed in terms of infrastructural support and awareness. Women are often excluded, as victims of discriminatory social and economic practices. There is thus a need for policies that facilitate effective linkages of the rural economy and different segments of the poor with markets.
- Price reforms should take precedence over removal of marketing regulations, and measures to promote a competitive sector must be initiated before dismantling the public sector.
- In the absence of prior domestic trade liberalization and institutional support, gains from external trade liberalization are limited. Indeed, according to the evidence in Gaiha and Imai (2005), institutional quality improvements have greater priority.
- Various reforms must be packaged so as to compensate the big losers in some way. A social safety net, for example, may facilitate political support for reforms.
- In the transition period, it is imperative to have a consistent and stable policy environment that maintains the continuity of reforms, however slow.

### **Sectoral policy concerns**

Despite a steady fall in its share of GDP, agriculture continues to be a major source of livelihood for the vast majority of the rural population.

#### **Agricultural productivity**

Increases in agricultural productivity are important in reducing poverty. Specifically, research-led technological change has had a significant role in transforming famine-plagued and food-insecure Asian countries into food-self-sufficient ones. Under certain conditions, agricultural productivity growth benefits poor farmers and landless labourers alike by increasing both production and employment. It benefits the rural and urban poor through growth in the non-farm economy. It may also reduce vulnerability to shock through asset accumulation.

19 Financial systems across Asia are sounder than in 1997, and there is greater transparency. A risk, however, is that a rise in inflation due to oil prices would raise interest rates and reduce liquidity in bond markets.



- A recent estimate shows that a 1-per-cent increase in yields will reduce the number of dollar poor by 1.34 million in East Asia and 2.51 million in South Asia. In the Asian sample, yields vary with the research and development (R&D), fertilizer and land-quality indices (Thirtle, Lin and Piesse, 2003, and Annex Table 2). Various technologies and techniques have recorded impressive achievements in a number of rural development initiatives (such as biological control of crop pests in Asia). However, the latter successes are conditional on significant policy and institutional reforms that ensure equitable access to land, markets, credit, education, extension and infrastructure in rainfed farming areas.
- Of particular interest are some findings related to less-favoured areas. An analysis of Indian data shows that there is little trade-off between production and poverty reduction. Corroborative evidence from China indicates that returns to agricultural research and development in the poorest (western) region are 15 per cent above the country average. Moreover, 140 people are brought out of poverty per 100 000 Chinese yuans of extra research investment, as against 30 nationally.
- A cautious approach is necessary with respect to biotechnology. More public-sector research into transgenic food staples is needed to ascertain whether biotechnology reduces poverty. The potential of existing and indigenous technologies could be better exploited through easier access to water, extension and other support services. For a comprehensive and balanced review of evidence, see FAO (2004).
- Forest dwellers, pastoralists and indigenous peoples living in marginal areas contribute greatly to the sustainable management of natural resources. Their knowledge of their environment helps preserve abundant and clear water supplies, biodiversity and carbon storage. Blending traditional knowledge systems with emerging technologies may boost productivity, as well as enhance ecological sustainability. For a more detailed exposition, see IFAD (2001, 2002), and Rahman and Westley (2001).

### Reduction of inequality

As emphasized earlier, the impact of growth on poverty depends on the degree of initial inequality in the distribution of endowments (both human and physical) and on the distribution of the income generated by growth. If inequality in endowments does not coexist with capital market imperfections, the resulting income distribution may be less unequal and more pro-poor.<sup>20</sup> In the absence of data on asset distribution over time, the focus is usually on whether income inequality has increased or decreased during a growth period. There has been agreement on an increase in income inequality in recent years, during which there was a marked shift towards globalization in the sense of openness to foreign trade and investment.<sup>21</sup>

20 Srinivasan (2000) argues cogently that wealth inequality combined with capital market imperfections may be bad for growth as well.

21 Milanovic (2002) reports a sharp rise in world inequality over the period 1988-93, using both the Gini coefficient and ratio measures (i.e. richest decile/median and poorest decile/median). Analysis of 1998 data suggests a slight drop in inequality in 1993-98, leaving a large increase over 1988-93. Another study (Dikhanov and Ward, 2003), using the WIDER data set and a longer time period (1970-99), reports that the Gini increased from 0.668 to 0.683. For a similar finding in Asian economies, see UN (2003).

### Box 1: Land rights for women

Effective and independent land rights for women are important on four broad counts: welfare, efficiency, equality and empowerment. And there are three major ways by which women can gain land: inheritance, state transfers and the market.

Inheritance is the most important source, since in most countries arable land is privately owned (for example, 86 per cent in India). In South Asia (where inheritance laws vary both by region and religion), even though women in most communities can legally inherit from parents and husbands, their rights are not equal to men's, with Sri Lanka doing better than the rest of the region. Moreover, even to the extent that women enjoy legal rights, there is a vast gap between law and practice. While macro-assessments are difficult, given a dearth of gender-disaggregated data on land ownership, small-scale surveys are indicative: in rural India, a 1991 study found that only 13 per cent of women whose fathers owned land inherited any as daughters, and only 51 per cent of those whose husbands owned land inherited as widows, due to underlying social and administrative obstacles.

Similarly, land transfers by governments, whether under land reform, irrigation or poverty-reduction schemes, are typically made to men. The recent practice of granting joint title to spouses is an improvement, but gives women little control over the land and its produce. Individual titles or titles to groups of women would be more effective.

Land obtained in the market through lease or purchase is another option, but limited by women's restricted access to financial resources compared with men. There are, however, promising examples of groups of landless women using state-subsidized credit for leasing or purchasing land in groups and cultivating it communally. There is a window of opportunity here for framing policies to enhance gender equality in land rights, in the interests of both welfare and efficiency.

Source: Agarwal (2004)

However, there is a sharp divergence of views as to whether globalization played a major role in this phenomenon. For a review of the evidence, see Gaiha (2003) and Wade (2004).

The case for land redistribution rests on the presumption that small farms are often more productive than large farms because of their differential advantage in labour costs and the superiority of the soil quality. If access to production inputs and to information and marketing networks can be improved, land redistribution may enhance productivity. Security of tenure, if properly implemented, provides incentives for long-term investments in land. However, in the absence of adequate enforcement of tenurial security and effective ceilings on farm size, restrictions on tenancy can lead to the eviction of tenants (IFAD, 2002).

Even though political prospects for redistributive land reforms are not bright, additional considerations in their favour are that they may help change the local political structure by giving more voice to the poor and may encourage them to become more involved in local, self-governing institutions and common management of local public goods (Bardhan, 1996).

A recent study based on the Indian experience from 1955 to 1988 confirms a strong link between poverty reduction and two forms of land reform – tenancy reform and abolition of intermediaries. Land reforms also benefit the landless by raising agricultural wages (Besley and Burgess, 2003). From a broader perspective, another study draws attention to the significant role of land reforms in reducing poverty in the state of Kerala in India. An issue then is: what is special about Kerala? It is not growth, as Kerala's growth has been quite slow. Instead, the factors that facilitated agrarian reforms were an informed, participatory and assertive electorate and a competitive environment for political parties (Herring, 2002).

IFAD's experiences in China and India further corroborate the importance of security of tenure – i.e. of ownership or user rights (IFAD, 2002). The IFAD-supported Orissa Tribal Development Project in India obtained land titles for tribal groups. Land occupied by tribal peoples became transferable to women in the form of inheritable land titles in perpetuity. Such land titling led to major improvements in natural resource management. Comparisons between project areas where land titling had been granted and adjacent open-access areas revealed marked differences in land quality.

Another priority is the redistribution of ceiling surplus land to the landless. The objective is not so much the viability of small plots of land as it is to enable the landless to participate in the growth process. As the forced redistribution of land that occurred in China, Korea and Taiwan is unlikely in other Asian countries, market-assisted land transfers are proposed.<sup>22</sup> But these transfers are conditional upon clear and enforceable property rights to land and easy access to credit by the poor. A major risk, however, is that such transfers may benefit the rural middle class more than the landless.

Endowing women with land enhances their well-being, as well as strengthening their ability to challenge social and political gender inequities. For a persuasive argument along these lines, see Agarwal (1994).

### **Non-farm activities**

Non-farm sources of income are important for the poor because direct agricultural income does not provide an adequate livelihood, given the small holdings and seasonality of agricultural income and wages. Not only are non-farm activities a source of supplementary income and employment for the poor, and, in particular, an independent income source for women, but they also benefit agriculture through strong intersectoral linkages. Indeed, as most rural non-farm activities involve little capital and more employment per unit of capital, they are well suited to the requirements of many poor households. These households derive a significant, albeit variable proportion of their income from non-farm sources (for example, 32 per cent in Bangladesh and 56 per cent in the Philippines). The share of paid non-farm work in rural employment is also high among the poor, varying from 30 to 50 per cent.

22 Market-assisted land reform relies on voluntary land transfers based on negotiation between buyers and sellers, where the government role is limited to establishing the necessary framework and making a land purchase grant or loan to eligible beneficiaries (Deininger, 1999).

## Box 2: Non-farm activities and rural development in Bangladesh

Rural non-farm activities (RNF) have played an important role in boosting incomes and employment in rural areas in Bangladesh. A review of evidence over the period 1987-2000 offers useful insights.

In 2000, 52 per cent of the earning members of the households reported RNF activities as their primary occupation and another 10 per cent as the secondary occupation. The corresponding estimates for 1987 were 34 and 15 per cent respectively.

In 2000, a third of rural employment was generated in business enterprises and service-sector activities. There was an increase of over 60 per cent in the proportion engaged in these activities over the period 1987-2000. Service-sector activities are relatively full time, while a substantial proportion of workers take up business activities as a part-time occupation.

The largest expansion has taken place in rickshaw/cart pulling and self-employed repair and maintenance (the proportion of rural workers employed in these services grew from 2.7 to 8.3 per cent during 1987-2000). This was largely due to the expansion of rural roads and the increase in shallow tube wells, power pumps and power tillers.

Trade and business enterprises accounted for 22 per cent of rural non-farm employment and nearly 43 per cent of the income generated from the rural non-farm sector in 2000. Income from these activities rose at the highest rate.

Agricultural input- and crop-output-related enterprises comprised nearly one third of total business enterprises, but accounted for only one sixth of the capital. This implies the small-scale nature of these enterprises, with an average capital employed of US\$ 900, mostly financed through personal savings. In fact, mobilization of agricultural surplus financed many of these enterprises.

Average productivity in non-farm activities rose from \$1.43 per day in 1987 to \$2.28 in 2000 – an increase of 3.6 per cent per year. Productivity growth for the landless was lower (2.2 per cent per year) and was highest for the landowning group (4.6 per cent per year).

Non-farm incomes contributed substantially to the growth of rural incomes over the period 1987-2000. However, rural income distribution became more unequal (the income Gini rose from 0.4 in 1987 to 0.45 in 2000), because rural non-agricultural incomes are less equally distributed than agricultural incomes.

Thus, while poverty reduction was largely a result of a more broad-based growth in Bangladesh during the 1990s, an increase in income inequality moderated the poverty reduction.

Source: Hussain (2004)

Evidence from villages such as tambon Thung Sadok in northern Thailand unravels the risks and opportunities of globalization in rural areas (Rigg and Nattapoolwat, 2001). The intersection of global processes with local realities offers useful insights. By embracing a diverse portfolio of farm and non-farm activities, farmers have been able to secure higher incomes and living standards. In fact, households deeply involved in the global economy were able to cope with the economic crisis better.

Some features of the restructuring and integration of activities into a global network are noteworthy. One is that such activities are a small but growing component of the wide array of activities that households in this tambon typically pursue. The second is that vertical integration of these activities – especially in fruit production – is mediated by local and often quite small business interests. In fact, there is a four-way relationship in which farmers, small business interests, agro-industry and the state are cast in roles that are negotiated and contested over time.

### Microfinance

Despite the expansion of banking services in rural areas, the majority of rural poor people have failed to benefit. Following the success of the Grameen Bank in Bangladesh and other similar experiences, microfinance institutions (MFIs) tend to rely on peer-group monitoring and joint liability in order to overcome the screening, monitoring and enforcement problems frequently encountered by formal lending institutions. These programmes provide small loans to poor borrowers, mostly women organized into small groups, combined with accessible deposit facilities and much greater attention to risk management.

Although microfinance programmes have proliferated in recent years, their coverage remains limited. In 12 countries of the Asia and the Pacific Region, for example, about 5.1 million households were covered, of which 4.5 million were in Bangladesh. Assuming perfect targeting, this represents barely 2.5 per cent of all poor households (IFAD, 2002).<sup>23</sup>

Microfinance enables the poor to protect, diversify and increase their sources of income and to mitigate poverty and hunger. Small loans allow them to take advantage of a business opportunity or to cover a cash-flow gap. Savings accumulated in small amounts may help acquire additional assets, pay for health care or send more children to school. Loans, savings and insurance may help stabilize incomes and consumption during contingencies (such as illness or accidents), seasonal slumps, or events such as floods or a death in the family. Several studies corroborate these benefits (Littlefield, Murdugh and Hashemi, 2003; IFAD, 2002; and Gaiha, 2001, 2002).

- In Indonesia, borrowers increased their incomes by 12.9 per cent, while members of the control group recorded a 3 per cent increase. Another study of borrowers from Bank Rakyat Indonesia, on Lombok Island, found that clients' average incomes had risen by 112 per cent and that 90 per cent of these households had moved out of poverty.
- A study of clients of the Society for Helping to Awaken Rural Poor through Education (SHARE) in India reported significant improvements in the well-being of three fourths of the clients who participated in the programme for longer periods, and that half had moved out of poverty. The employment pattern of clients shifted from irregular, low-paid daily labour to diversified sources of earnings, increased employment of family members and greater dependence on small business.
- A detailed World Bank study of the three largest microfinance programmes in Bangladesh – the Grameen Bank, Bangladesh Rural Advancement Committee and Rural Development Project-12 – found that women clients increased household expenditure by 18 Bangladeshi takas out of every 100 takas borrowed, and that 5 per cent of the clients graduated out of poverty every year. What is more significant is that they were able to sustain these gains over time. Important externalities included higher wage rates. Increases in self-employment and subsequent withdrawals from wage employment resulted in a 21 per cent increase in wages in programme villages.

23 Note that these estimates exclude the beneficiaries of microcredit in India (we owe this clarification to Shyam Khadka).

- An IFAD assessment confirmed that voluntary savings by self-help groups, promoted by its microfinance programmes in Indonesia, allowed them to maintain their consumption levels during the recent financial crisis.
- Appropriate programme design can lead to empowerment of women, resulting in their owning more assets, having a more active role in family decisions and a broadening sphere of activities. The Women's Empowerment Programme in Nepal, for example, found that 68 per cent of its members were responsible for decisions on property transactions, sending their daughters to school, negotiating their children's marriages and planning their families. The non-profit Tulay sa Pag-uhalad. In (Bridge to Progress) in the Philippines reported that programme participation increased the percentage of women who were principal household fund managers from 33 to 51 per cent (in comparison with 31 per cent in the control group).

Some concerns about unsatisfactory targeting, however, cannot be set aside.<sup>24</sup> In Bangladesh, for example, only 26 per cent of hard-core poor households and 45 per cent of absolute poor households belonged to a credit NGO. Lack of access to land and a homestead is a major factor in the exclusion of the poorest, as are also the stringent financial requirements imposed by MFIs (such as strict savings and repayment schedules and penalties for delays).<sup>25</sup> A related concern is the sustainability of the local institutions created by microfinance programmes to channel loans and other financial products to target groups, in highly stratified and unequal communities, following completion of programme or project funding.

There is a growing realization of the weakness of the links between rural enterprise and markets, hampering quick diversification of rural livelihoods. It is important to bear in mind that credit or financial services alone have limited income-enhancing potential. This was illustrated by the Rural Microenterprise Finance Project in the Philippines, launched in 1997. It was effective in creating employment opportunities and enhancing the incomes of the poorest, but failed to realize its full potential because there was no provision for non-financial services and market linkages. The newly formulated Rural Microenterprise Promotion Programme is designed to overcome this weakness through entrepreneurship development, trade fairs, market information services and microenterprise associations (IFAD, 2004).

### **Institutional quality**

Institutions are a fuzzy concept – they can be defined in terms of the functions they perform (such as developing, regulating and legitimizing markets), as well as hierarchically (meta institutions, such as democracy, and meso institutions, such as the central bank). For the present purpose, examples of institutional quality at macro, sectoral and local levels are cited.

24 The assessment in Littlefield, Murdoch and Hashemi (2003) glosses over targeting failures and is overly optimistic about the sustainability of credit to the poorest without appropriate changes in the design and implementation of microfinance programmes (e.g. greater flexibility in repayment schedules).

25 A recent comparative analysis of microfinance in China and India emphasizes the enduring popularity of informal finance in these countries despite the expansion of microfinance (Tsai, 2004). Apart from the failure of microfinance to meet the demand for grass-roots credit, it is argued that formal and informal channels of credit are imperfect substitutes, as they serve segmented groups. Formal-sector credit is in fact more expensive for the poorer segments, and reduction of transaction costs for the poorest is a major priority.

**Box 3: Empowerment of women**

As women are a particularly deprived subset of the Mewat population – in terms of literacy, property rights and autonomy – a major thrust of the Mewat Area Development Project was women's empowerment through modest but sustained economic betterment. Self-help groups (SHGs) were promoted to inculcate thrift, facilitate access to credit, promote self-employment and, above all, overcome social and other barriers to participation in the community sphere. NGOs were assigned a key role in SHG formation and growth. A total of 492 SHGs were formed between 1998-2000, with a membership of 6 703 women and savings of approximately 3.43 million Indian rupees (INR). Of this total, 331 SHGs had disbursed loans amounting to INR 4.2 million.

While there is evidence of male domination in the use of loans and income disposal, there is also some evidence supporting the view that women are not mere conduits for obtaining loans. For example, repayment of loans was seen as a family obligation and, to the extent that the loans have allowed women to contribute to household income, some changes have occurred in the male-female equation within the household. More significant, however, is the transformation of women's role in the community sphere, where SHG members have become more assertive about larger social concerns (such as prohibition). In short, there are unmistakable signs of women's empowerment, despite social resistance.

Source: Gaiha (2001)

An important lesson from the East Asian crisis is that domestic institutions of conflict management can mitigate the severity of economic hardship that results from an external shock. For a cogently argued view, see Rodrik (1999). It is arguable that Korea and Thailand were able to make the requisite policy adjustments more easily than Indonesia largely because of their democratic institutions and practices of consultation and cooperation among social partners. Specifically, the following features facilitated a smoother adjustment: (i) power was transferred from a set of discredited politicians to a new set of leaders; (ii) democracy required participation, consultation and bargaining, and thus a more consensus-based policy adjustment; (iii) the institutionalized mechanisms of voice reduced the risk of riots, protests and other forms of disruptive action.<sup>26</sup>

However, a rigid view of institutional reforms – including the standard menu of secure property rights, independent judiciary and effective corporate governance – may be too demanding in some contexts. A review of economic transformation in China suggests that transitional reforms work well. These reforms achieved two objectives simultaneously – they helped improve efficiency and were compatible with the interests of those in power. Examples cited are of town and village enterprises (TVEs), dual-track liberalization in agriculture (fixed-plan and flexible market prices) and fiscal federalism. For an elaboration of these examples, see Qian (2003). For example, under the dual-track approach, over the period 1977-88, the state procurement of grains remained fixed, while total grain produced rose substantially

26 Bardhan (2005) makes a related point: when wealth distribution is relatively egalitarian, as in large parts of East Asia (through land reforms and widespread expansion of education and health services), the building of consensus in favour of growth-promoting and stabilization policies is easier. And Hoff (2003) emphasizes that political and economic inequality shape institutional evolution in ways that constrain growth.

#### Box 4: Capture of village panchayats in India

A survey in the state of Uttar Pradesh in India on implementation of the Jawahar Rozgar Yojana and the Integrated Rural Development Programme – two major anti-poverty programmes – by village panchayats (elected village councils) confirmed large-scale resource diversion, producing only minimal benefits to the poor. With a local power structure dominated by the upper castes (especially brahmins and thakurs) and the poor lacking awareness and organization, rent-seeking behavior was unchecked. Regardless of whether the panchayat chairperson belonged to the upper or lower castes, there was little variation in the method and pattern of domination by locally powerful groups. Pessimism and a fear of violence discouraged any organized protest or resistance. Ironically, large segments of the rural population continue to be at the mercy of a few powerful groups despite a drastic overhaul of the panchayats. In this context, of particular significance is the initiative of an NGO, Mazdoor Kisan Shakti Sangathan, to improve the accountability of local governments through sustained agitation for right-to-information in the state of Rajasthan. While overcoming resistance will not be easy, the present United Progressive Alliance government reaffirmed its commitment to extend this right to the remaining states.

Source: Gaiha, Kaushik and Kulkarni (1998)

because of the incentive of selling higher output at market prices. From the early 1990s, the planned track was phased out, and it reduced to 16 per cent of agricultural output. When the planned track was abolished, potential losers were compensated.

On the other hand, economic incentives had a major role in the dramatic expansion of TVEs, with intense competition among the TVEs run by different local governments. The competition had teeth in the form of an imposed, hard budget constraint. Thus a failing TVE could not expect to be bailed out by the provincial or national government, but when a TVE generated a surplus, the local authority was allowed to keep most of it. However, local government ownership was successful only during a phase of complementary changes elsewhere. TVEs were increasingly privatized in the late 1990s – following declining growth and profit rates and greater legitimacy of the private sector. This suggests that institutional innovations must adapt to a changing economic environment.<sup>27</sup> For a recent review of TVEs, see IFAD (2004). The important lesson here is that transitional institutions do not necessarily block further reforms and may, in fact, pave the way for more extensive and durable reforms.

The experience of Viet Nam demonstrates that reform momentum and political and institutional continuity make a significant difference in growth and poverty reduction. The rapid growth during the 1990s was the result of a significant shift in economic policies – from those that reinforced a poverty trap (exchange rate overvaluation, hyperinflation, lack of incentives in the rural sector, severe limitations on the private sector) to a different set that could support a higher level of economic activity. The policy experience is broken up into five periods in Table 5.

27 Privatization accelerated after the constitutional amendment of 1998, which recognized the private sector as an important part of the Chinese economy and legitimated private ownership. In addition, lack of managerial incentives became a major concern as the economy became more market-oriented. For an elaboration of transitional institutional innovations, see Qian (2003).



### Box 5: Agency design and incentives: a comparison of Indian and Korean irrigation systems

In India, the canal patroller is a full-time employee and is not allowed to farm more than a small amount of land. Recruited by the Irrigation Department, which also pays his salary, he is usually not posted to his native village and is not supposed to remain in one location for more than six years. The irrigation system is subject to myriad checks and balances that are designed to check corruption, but have the unintended effect of hampering the system's efficient functioning. Financial control and expenditure are rigidly separated.

If, for example, a canal develops a breach, neither the foreman nor the assistant engineer may undertake repairs without the permission of the executive engineer. Under such an arrangement, it suits the assistant engineer to wait until the breach deteriorates, so as to have time to obtain formal approval of funds for repairs. Standing apart from the end-users and restricted in their ability to respond to villagers' needs, canal patrollers are confined to routine tasks. Their bureaucratic superiors are more concerned with political pressures, since the risk of unwelcome transfers is a real one. Arbitrary or manipulative decisions imposed from above tend to favour farms belonging to large landowners and/or specific villages.

By contrast, the Korean system is managed by local associations, with close links to the state as well as to the communities. The president of an association is appointed by the Ministry of Agriculture. Staff salaries and operational budgets of these associations are partly funded by the water charges collected by the associations. The professional staff are locally recruited, and the patrollers must themselves be end-users. A Korean patroller thus has stronger incentives to perform well – his own interest in obtaining water for irrigation, avoiding sanctions from his own community and preservation of his job. Not subject to transfers, he and his colleagues develop strong working relationships and exert peer pressure on one another.

Source: Wade (1997)

The devastation of the war and the rigidity of the regime had weakened the economy, and a severe economic crisis followed efforts towards immediate socialism. Policies were relaxed in a piecemeal manner, but without any clear shift in policy direction. Nevertheless, even this modest relaxation of controls allowed some growth. However, the growth eventually dwindled and in 1986 the Sixth Congress, while remaining committed to socialism, announced a new direction that allowed a multisectoral approach (a mix of public and private sectors). Implementation of these reforms was weak until an agricultural crisis in 1989 precipitated drastic reforms. This package of reforms, referred to as *doi moi*, was enormously successful, creating rapid growth until the effects of the East Asian crisis began to be felt in 1997.<sup>28</sup> These reforms were designed to sustain a much higher level of output within the same political and institutional regimes. Who the government is and what it intends to do or can do were generally not in dispute (Pritchett, 2003).

28 The growth process had a strong pro-poor bias as the proportional increase in the incomes of the poorest 20 per cent was appreciably larger than that of the top 20 or 40 per cent (Balisacan, Pernia and Estrada (2003)).

29 A case study of decentralization in central Kalimantan, Indonesia, revealed some features not very different from those described: elite domination, lack of transparency at village and district levels, and villagers sometimes resorting to 'community justice' initiatives to fulfil their livelihood needs (McCarthy, 2004).

30 For a detailed review of the Gal Oya project, see Uphoff and Wijayratna (2000). On the broader issue of the role of agencies in mobilizing social capital, with illustrative evidence from villages in Rajasthan, see Krishna (2001).

### Box 6: Strengthening of social capital

Before the project, water stealing by siphoning or diversion was rampant in Gal Oya. Unless 'head enders' were willing to change their behaviour by accommodating the interests and needs of 'tail enders', conflicts in water sharing and non-cooperation in cleaning, maintaining and operating channels and physical control structures were unavoidable – especially because the upper reaches of the Left Bank were populated by Sinhalese settlers and the lower reaches by Tamils.

In this project, the organizational roles and rules were created by the farmers themselves, assisted by project staff and institutional organizers. A shared value orientation encouraged the head-end farmers to cooperate in ensuring that tail enders could grow a crop. This was all the more remarkable because of the ethnic divide between these farmers. The usefulness of the Gal Oya farmer organizations as social capital was demonstrated during the 1997 dry season. The limited volume of water was distributed so sparingly yet effectively that a better than normal crop was obtained.

Source: Uphoff and Wijayratna (2000)

The examples of local institutions emphasize incentives, accountability and capture. While the designing of incentives for groups of officials and elected representatives is far from straightforward, some key elements may be identified. All too often, the concern to make local governments and bodies accountable to higher authorities is exaggerated and is unmatched by a corresponding concern for accountability to the local community. As a result, the capture of local governments by a few influential people in a context of acute inequality of endowments is commonplace, with the poor often being the victims.<sup>29</sup>

The importance of agency design and incentives is illustrated in a striking way by comparing the Indian and Korean irrigation systems.

Analysis of cooperative behaviour in the allocation of water among group members, investments in routine maintenance and in expansion of the productive capacity of wells in two villages in the southern Indian state of Andhra Pradesh yields useful insights (Aggarwal, 2000).

There are certain activities in which mechanisms of informal cooperation work well and others in which they do not, even when the group size is small and members are related. Since allocation of water and routine maintenance of group-owned wells are of a repetitive nature, require low contributions and entail low risks and close monitoring, these activities function best when left to the local people to manage themselves. But for activities that require larger commitments and entail higher risks, such as investing in new wells, the probability of collective action is low. Farmers prefer to invest individually despite the benefits of pooling capital and sharing risk. Apart from a few exceptions, group investment in new wells has been widespread in areas where there was external agency involvement (e.g. the government).<sup>30</sup>

Strengthening of social capital, in terms of norms of equity, productivity and participation, and creating space for new roles to emerge at the grass roots, has a high payoff. Outsiders do not create social capital. However, they can introduce roles in communities that are then reinforced by rules, precedents and procedures, which facilitate mutually beneficial collective action. This is illustrated by the Gal Oya scheme in southeastern Sri Lanka, a system of farmer organizations established in the early 1980s, which greatly improved the efficiency and extension of irrigated rice production.

**Box 7: Coping strategies in the war-affected north-east of Sri Lanka**

Some insights emerge from a comparison of livelihood strategies in four villages in the war-affected, multi-ethnic Trincomalee district. Two propositions are illustrated: first, livelihood strategies are deeply contextual and depend on the local geography of war; and second, war can be both a threat and a limited opportunity.

Within the households, responsibilities and gender roles change, and women are often forced to take a more active role in economic affairs – especially in Tamil communities. In Ithikulam, for example, many households involve women and the elderly in bringing agricultural produce to markets, passing through army checkpoints.

Instances of poor households undertaking risky livelihood activities are reported. In Vattam, fishermen sail into restricted areas, and in Ithikulam, destitute families send children to the nearby jungle to collect firewood to be sold.

A lucrative option for some Sinhalese men is home guard employment, with a regular salary that exceeds their earnings from agriculture.

The risky environment and limited livelihood options also influence household management of investment and expenditure. In Kumurupitty, for example, households are extremely reluctant to invest in tangible assets or cultivation.

Source: Korf (2004)

Finally, frequency of civil war, ethnic conflicts and organized criminality in countries with low human and economic development – and in borderlands and other regions typified by weak state presence – add to the powerlessness of the poorest. Some of the coping strategies that they are forced to adopt are sketched below.

While there are no easy answers, greater attention must be given to conflict prevention through a more inclusive process of rural development. As argued earlier in this report, a major priority is reallocating resources to build social infrastructure (such as roads, schools and health clinics), expand livelihood options in some of the most backward regions and strengthen local institutions of conflict management and norms of equity and participation.

In a wide-ranging set of proposals, Bardhan (2005) draws attention to the potential of the following measures to contain periodic eruptions of ethnic conflicts and violence: constitutional guarantees that reduce the fear of ‘victimhood’ and subjugation; separation of executive, legislative and judiciary powers; electoral reforms that give incentives to the formation of multi-ethnic coalitions and inter-ethnic accommodation (such as a preferential system of voting, as opposed to the first-past-the-post rule in single-member constituencies); devolution of power in a federal structure; preferential job policies; protection of tribal and indigenous people against encroachments on their traditional rights to land, forests and mineral resources; a large-scale programme of vocational training and public works for unemployed youth; and cheap housing and other amenities. If the evidence presented in this report is indicative, even modest reforms along these lines may help mitigate the severity of deprivation in this region for a large segment of the rural population.

## VII. ISSUES FOR DISCUSSION

Based on the above analysis, some policy concerns and issues deserve careful examination.

- As the development discourse has changed significantly and commitment to the MDGs has grown, it may be worthwhile reviewing IFAD's strategic concerns. With the rapid globalization of developing countries – especially in the Asia and the Pacific Region – the primacy of institutions in a pro-poor strategy of growth must not be overlooked. A related concern is whether this shift calls for changes in IFAD's portfolio, with a sharper focus on institutional quality. Finally, greater clarity in linking and adapting locally appropriate poverty indicators to the dollar-a-day criterion for impact assessment would have considerable operational value in the context of performance-based assistance.
- As new income-earning opportunities are unleashed in a more globalized environment, it is imperative that the terms of trade do not move against agriculture and that the poor are in a position to seize such opportunities. Thus there is a need for policies that facilitate effective linkages of the rural economy, and various segments of the poor, with the market. The articulation of policy options focused on infrastructural support (such as roads and transportation), agricultural research, extension and deregulation is a priority.
- Sequencing of policy reforms is another major concern (e.g. price reforms, deregulation, privatization). Specifically, attention must be devoted to initiating a more competitive environment for farm and non-farm activities – phasing out of subsidies on fertilizer, electricity and water, and easier access to markets and price information – without causing severe hardships to disadvantaged groups (e.g. women, tribal peoples, smallholders and labourers). An issue here is whether political resistance to such reforms can be overcome through social safety nets that mitigate the severity of hardships in the transitional phase.
- Although available evidence favours a larger share of public expenditure in less-favoured areas with large concentrations of the poor, the cost-effectiveness of investments in roads, markets, electrification and irrigation and their production and poverty impacts are not well understood. This is an important policy concern, given the diversity of such areas in terms of population density, livelihood options and vulnerability to natural and other shocks.
- In the context of diversification of rural economies through non-farm activities, a specific issue is whether conditions can be created under which the most disadvantaged groups benefit more from the expansion of such activities – for example, through acquisition of new skills, easier access to credit and marketing networks and group ownership of assets.

- In the context of local institutional quality, modest goals may suffice. However, it is imperative to understand the constraints arising from elite domination. Thus careful attention must be given to strengthening voice and accountability mechanisms – for example, through easier access to official records, strengthening of producer groups and women’s associations and expansion of livelihood options – and shared norms of fairness and reciprocity. In addition, given the pervasiveness of coordination failures, the forging of partnerships between public and private agencies is equally important (for example, between governments and markets, on the one hand, and between NGOs and markets, on the other).
- Given the devastation resulting from ethnic conflict and natural disasters, it is imperative to gain a better understanding of the feasibility of constitutional and other safeguards, devolution of power, preferential job policies, large-scale vocational training and rural public works, as well as speedy relief efforts that mobilize local communities.

**Table 1: Definitions and sources of institutional data**

Variable	Definition
Voice and accountability	Includes a number of indicators measuring various aspects of the political process, civil liberties and political rights. These indicators measure the extent to which citizens of a country are able to participate in the selection of governments. Also included here are indicators measuring the independence of the media, which serves an important role in monitoring those in authority and holding them accountable for their actions.
Political stability and absence of violence	Combines several indicators that measure perceptions of the likelihood that the government in power will be destabilized or overthrown by unconstitutional and/or violent means. This index is designed to reflect the concern as to whether the quality of governance is compromised by the likelihood of wrenching changes in government, implying drastic policy changes and undermining of the ability of all citizens to peacefully select and replace those in power.
Control of corruption	Measures perceptions of corruption, defined as the exercise of public power for private gain. Different sources measure it differently, ranging from the frequency of 'additional payments to get things done' to the effects of corruption on the business environment, to measuring 'grand corruption' in the political arena or in the tendency of elites to engage in state capture.
Rule of law	Includes several indicators that measure the extent to which agents have confidence in and abide by the rules of society. These indicators are based on perceptions of the incidence of crime, effectiveness of the judiciary and enforceability of contracts. Together, they reflect the success of a society in creating an environment in which fair and predictable rules form the basis for economic and social interactions, and for the extent to which property rights are protected.

Source: Kaufmann, Kraay and Zoido-Lobaton (2003)

**Table 2: Elasticity of poverty head count with respect to: 1. GDP per capita; 2. agricultural income per capita, and; 3. income Gini and required rates of growth (reduction of income Gini) in comparison with actual growth (actual income Gini)**

Elasticity with respect to:		Elasticity of poverty head count	Required rate of growth for halving poverty by 2015	Actual growth rate
(1) GDP per capita	Besley-Burges Study	-0.76	3.60	1.70(1960-90)
	Based on Case C in Table 1-1	-0.92	3.01	
	Based on Case A in Table 1-3	-0.75	3.70	
	Based on Case B in Table 1-4	-0.86	3.22	0.86(1985-98)
	Based on Case E in Table 1-5	-0.69	4.02	
	Based on Case B in Table 2-1	-0.81	3.42	
(2) Agricultural income per capita	Based on Case C in Table 1-1	-0.51	5.48	
	Based on Case A in Table 1-3	-0.57	4.86	
	Based on Case B in Table 1-4	-0.62	4.48	0.36(1985-98)
	Based on Case E in Table 1-5	-0.35	7.88	
	Based on Case B in Table 2-1	-1.08	2.57	
		Elasticity of poverty head count	Required reduction of Gini to halve poverty by 2015 with actual growth of:	
			[0.86%]	[1.76%]
(3) Income Gini	Based on Case C in Table 1-1	1.47	-22.06	-11.37
	Based on Case A in Table 1-3	0.91	-38.93	-24.06
	Based on Case B in Table 1-4	3.59	- 9.33	- 5.15
	Based on Case E in Table 1-5	1.36	-26.85	-17.51
	Based on Case B in Table 2-1	1.00	-34.36	-20.02

Disaggregation of actual growth

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East Asia	South Asia	Middle East & North Africa	Sub-Saharan Africa	Latin America
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3.50	2.68	1.64	0.00	0.48
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1.36	0.80	0.26	-0.01	0.46
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Gini coefficient (actual figure in 1998)

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East Asia	South Asia	Middle East & North Africa	Sub-Saharan Africa	Latin America
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38.80	34.74	35.87	46.47	49.44
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**Table 3: Simulation results based on different assumptions of institutional development for selected countries and areas<sup>1</sup> (%)**

	Summary statistics of institutional indicators							
	Voice & accountability		Aggregate governance index		Political stability		Rule of law	
	Value	Rank	Value	Rank	Value	Rank	Value	Rank
China	-1.5	63	-0.4	42	0.3	16	-0.2	28
Republic of Korea	0.7	7	0.5	7	0.2	18	0.8	4
Bangladesh	-0.2	33	-0.4	43	-0.4	44	-0.7	52
India	0.3	19	0.0	21	-0.3	37	0.2	13
Sri Lanka	-0.3	39	-0.6	51	-1.8	60	-0.1	24
Indonesia	-1.3	59	-1.2	59	-1.5	58	-1.0	58
Thailand	0.1	22	0.2	11	0.3	15	0.4	11
South Asia (average)	-0.2	33	-0.4	41	-0.8	47	-0.3	34
East/South-East Asia (average)	-0.3	34	-0.1	25	0.2	19	0.0	26
Sub-Saharan Africa (average)	-0.4	39	-0.4	36	-0.3	33	-0.4	38
Middle East & North Africa (average)	-0.8	48	-0.4	32	-0.6	34	0.047	24
Latin America (average)	0.3	20	-0.1	27	-0.2	32	-0.2	31
Average		-0.18		-0.25		-0.24		-0.23
Maximum		1.26		0.96		0.98		1.26
Minimum		-1.72		-1.40		-2.65		-1.30
Average for top 10 performers		0.86		0.56		0.71		0.76
Average for top 30 performers		0.44		0.15		0.36		0.25
Number of countries		64		63		63		64

1 Figures in bold italic show case under which MDG is achieved

Case C: Table 1-1  
(for voice & accountability)

MDG headcount	Baseline (historic growth)	:Top 30 performers	:Top 10 performers
	Headcount	Headcount	Headcount
17.0	6.1	1.1	0.5
1.0	0.2	0.3	0.1
17.4	21.2	8.6	3.8
23.3	14.7	10.3	4.5
1.9	9.3	4.6	2.0
10.3	18.8	0.6	0.3
6.0	1.0	0.5	0.2
22.0	24.9	7.3	3.2
13.8	10.8	0.6	0.3
23.8	43.6	12.3	9.2
1.2	4.7	0.4	0.2
8.4	11.4	4.7	2.1
15.3	23.8	6.8	4.4

**Table 3 (continued): Simulation results based on different assumptions of institutional development for selected countries and areas<sup>1</sup> (%)**

Case A: Table 1-3  
(for aggregate governance)

	MDG headcount	Baseline (historic growth) Headcount	:Top 30 performers Headcount	:Top 10 performers Headcount
China	17.0	10.2	7.8	6.5
Republic of Korea	1.0	2.6	3.0	2.5
Bangladesh	17.4	19.8	15.1	12.6
India	23.3	16.8	15.6	12.9
Sri Lanka	1.9	10.0	15.7	13.1
Indonesia	10.3	11.7	6.3	5.2
Thailand	6.0	6.6	6.7	5.5
South Asia (average)	22.0	20.4	15.8	13.1
East/South-East Asia (average)	13.8	8.4	7.3	6.0
Sub-Saharan Africa (average)	23.8	41.2	32.4	28.1
Middle East & North Africa (average)	1.2	3.4	2.6	2.2
Latin America (average)	8.4	14.5	9.7	8.0
Average	15.3	23.2	17.7	15.1

1 Figures in bold italic show case under which MDG is achieved

Case B: Table 1-4  
(for political stability)

Case E: Table 1-5  
(for rule of law)

Baseline (historic growth)	:Top 30 performers	:Top 10 performers	Baseline (historic growth)	:Top 30 performers	:Top 10 performers
Headcount	Headcount	Headcount	Headcount	Headcount	Headcount
8.5	8.4	7.4	3.8	2.8	1.4
0.4	0.4	0.3	0.3	1.3	0.6
6.1	4.7	4.1	27.1	11.3	5.6
16.6	13.2	11.7	13.7	12.4	6.1
14.8	7.3	6.5	10	9.9	4.9
1.6	0.9	0.8	6.5	2	1
10.8	10.7	9.5	1.7	2.2	1.1
12.5	8.8	7.8	20.4	11.1	5.5
19.3	19.3	17.2	5.7	2.3	1.1
50.4	48.4	47.9	40.7	14.1	7
2.4	1.9	1.7	2.8	1.7	0.8
30.3	22.3	20.7	14.9	5.8	2.9
32.4	28.8	27.7	22.1	6.4	3.1

**Table 4: Simulation results based on different assumptions of income distributions for selected countries and areas<sup>1</sup> (%)**

	MDG headcount	Income Gini in 1998	Baseline (historic growth) headcount		
			Without reduction of income Gini	With 10% reduction of income Gini	With 20% reduction of income Gini
China	17.0	40.3	6.1	5.2	4.4
Republic of Korea	1.0	31.6	0.2	0.2	0.1
Bangladesh	17.4	33.6	21.2	18.2	15.3
India	23.3	37.8	14.7	12.8	11.0
Sri Lanka	1.9	34.4	9.3	8.0	6.7
Indonesia	10.3	31.7	18.8	16.4	14.1
Thailand	6.0	41.4	1.0	0.9	0.7
South Asia	22.0	38.8	24.9	21.7	18.6
East/South-East Asia	13.8	34.2	10.8	9.4	8.1
Sub-Saharan Africa	23.8	35.9	40.3	37.5	34.8
Middle East & North Africa	1.2	46.5	4.7	4.1	3.5
Latin America	8.4	49.4	11.4	9.9	8.5
<b>Total</b>	<b>15.3</b>	<b>44.5</b>	<b>22.0</b>	<b>20.0</b>	<b>18.1</b>

1 Figures in bold italic show case under which MDG is achieved

**Table 5: Economic growth in Viet Nam 1976-99**

Period	Policy environment	Growth of GDP per capita per annum
1976-81	Unification of country, 'war communism', nationalization of private industry, trading, collectivization of farms in the south	-0.67%
1981-86	Second Five-Year Plan, some relaxation of controls in rural areas, introduction of 'contract system', but no announced reform path	5.86%
1986-88	Doi moi, prestabilization: reforms were announced in 1986, but proceeded slowly	1.97%
1988-97	Doi moi, with economic stabilization: a major stabilization in 1989 included exchange-rate unification, abolition of dual price system, reduction of quotas and tariffs, and others	5.85%
1997-99	East Asian crisis: spillover effects dampen growth	3.40%

Source: Pritchett (2003)

## ANNEX

**Table 1: List of countries used in the estimation and availability of data on European settlers' mortality rate and land distribution**

Country name	Country code	Area	Data of European settlers' mortality rate (*data exist)	Data on Gini of land distribution (data are available for countries with figures)
China	CHN	East Asia	.	.
Indonesia	IDN	East Asia	*	0.49
Republic of Korea	KOR	East Asia	.	0.33
Lao People's Dem. Rep.	LAO	East Asia	.	.
Malaysia	MYS	East Asia	*	0.51
Mongolia	MNG	East Asia	.	.
Philippines	PHL	East Asia	.	0.48
Thailand	THA	East Asia	.	0.41
Albania	ALB	East Europe	.	.
Armenia	ARM	East Europe	.	.
Azerbaijan	AZE	East Europe	.	.
Belarus	BLR	East Europe	.	.
Bulgaria	BGR	East Europe	.	.
Croatia	HRV	East Europe	.	.
Czech Republic	CZE	East Europe	.	.
Estonia	EST	East Europe	.	.
Georgia	GEO	East Europe	.	.
Hungary	HUN	East Europe	.	.
Kazakhstan	KAZ	East Europe	.	.
Kyrgyz Republic	KGZ	East Europe	.	.
Latvia	LVA	East Europe	.	.
Lithuania	LTU	East Europe	.	.
Republic of Moldova	MDA	East Europe	.	.
Poland	POL	East Europe	.	.
Romania	ROM	East Europe	.	.
Russian Federation	RUS	East Europe	.	.
Slovak Republic	SVK	East Europe	.	.
Slovenia	SVN	East Europe	.	.
Turkey	TUR	East Europe	.	0.52
Turkmenistan	TKM	East Europe	.	.
Ukraine	UKR	East Europe	.	.
Uzbekistan	UZB	East Europe	.	.
Bolivia	BOL	Latin America	*	0.55

Country name	Country code	Area	Data of European settlers' mortality rate (*data exist)	Data on Gini of land distribution (data are available for countries with figures)
Brazil	BRA	Latin America	*	0.73
Chile	CHL	Latin America	*	0.64
Colombia	COL	Latin America	*	0.70
Costa Rica	CRI	Latin America	*	0.67
Dominican Republic	DOM	Latin America	*	0.70
Ecuador	ECU	Latin America	*	0.69
El Salvador	SLV	Latin America	*	.
Guatemala	GTM	Latin America	*	.
Guyana	GUY	Latin America	*	0.60
Honduras	HND	Latin America	*	0.64
Jamaica	JAM	Latin America	*	0.68
Mexico	MEX	Latin America	*	0.58
Nicaragua	NIC	Latin America	*	.
Panama	PAN	Latin America	*	0.74
Paraguay	PRY	Latin America	*	0.77
Peru	PER	Latin America	*	0.61
Saint Lucia	LCA	Latin America	.	.
Trinidad and Tobago	TTO	Latin America	*	0.61
Uruguay	URY	Latin America	*	0.72
Venezuela (Bolivarian Rep. of)	VEN	Latin America	*	.
Algeria	DZA	Middle East & North Africa	*	.
Egypt	EGY	Middle East & North Africa	*	0.35
Jordan	JOR	Middle East & North Africa	.	0.57
Morocco	MAR	Middle East & North Africa	*	0.47
Tunisia	TUN	Middle East & North Africa	*	0.58
Yemen	YEM	Middle East & North Africa	.	.
Bangladesh	BGD	South Asia	*	0.50
India	IND	South Asia	*	0.55
Nepal	NPL	South Asia	.	0.59
Pakistan	PAK	South Asia	*	0.50
Sri Lanka	LKA	South Asia	*	0.58
Botswana	BWA	Sub Saharan Africa	.	0.50
Burkina Faso	BFA	Sub Saharan Africa	*	.



Country name	Country code	Area	Data of European settlers' mortality rate (*data exist)	Data on Gini of land distribution (data are available for countries with figures)
Central African Republic	CAF	Sub Saharan Africa	*	.
Côte d'Ivoire	CIV	Sub Saharan Africa	*	0.36
Ethiopia	ETH	Sub Saharan Africa	*	0.25
The Gambia	GMB	Sub Saharan Africa	*	0.38
Ghana	GHA	Sub Saharan Africa	*	0.44
Kenya	KEN	Sub Saharan Africa	*	0.72
Lesotho	LSO	Sub Saharan Africa	.	0.47
Madagascar	MDG	Sub Saharan Africa	*	.
Mali	MLI	Sub Saharan Africa	*	.
Mauritania	MRT	Sub Saharan Africa	*	0.52
Mozambique	MOZ	Sub Saharan Africa	.	.
Namibia	NAM	Sub Saharan Africa	.	.
Niger	NER	Sub Saharan Africa	*	0.30
Nigeria	NGA	Sub Saharan Africa	*	0.37
Rwanda	RWA	Sub Saharan Africa	*	0.39
Senegal	SEN	Sub Saharan Africa	*	.
Sierra Leone	SLE	Sub Saharan Africa	*	0.44
South Africa	ZAF	Sub Saharan Africa	*	.
Uganda	UGA	Sub Saharan Africa	*	0.59
United Rep. of Tanzania	TZA	Sub Saharan Africa	*	.
Zambia	ZMB	Sub Saharan Africa	.	0.08
Zimbabwe	ZWE	Sub Saharan Africa	.	.

**Table 2: Yields, R&D and rate of return (ROR) in Asian countries**

Country	R&D/ha (1995 US\$)	Value added/ha (1995 US\$)	% $\Delta$ yield	ROR (%)
Bangladesh	3.03	719	2.41	8
China	0.88	220	5.17	29
India	1.01	455	3.63	38
Indonesia	2.07	660	3.84	29
Malaysia	14.90	1410	4.91	9
Nepal	0.88	384	3.15	31
Pakistan	1.00	447	5.06	44
Philippines	1.24	1440	2.69	50
Sri Lanka	4.68	1020	1.15	-1
Thailand	3.29	728	3.28	23

Source: Thirtle, Lin and Piesse (2003)

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