THE QUALITY OF LIFE IN RURAL ASIA

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An economic transformation has occurred in much of rural Asia since the Asian Development Bank (ADB) last undertook a survey of the region in 1976. The rural economy has become increasingly linked to a rapidly integrating world economy, and rural society in Asia faces new opportunities and challenges.

The transformation of rural Asia has also been accompanied by some troubling developments. While large parts of the region have prospered, Asia remains home to the majority of the world’s poor. Growing inequalities and rising expectations in many parts of rural Asia have increased the urgency of tackling the problems of rural poverty. The rapid exploitation of natural resources is threatening the sustainability of the drive for higher productivity and incomes in some parts of rural Asia, and is, in general, affecting the quality of life in the entire region.

These developments have altered the concept of rural development to encompass concerns that go well beyond improvements in growth, income, and output. The concerns include an assessment of changes in the quality of life, broadly defined to include improvements in health and nutrition, education, environmentally safe living conditions, and reduction in gender and income inequalities. At the same time the policy environment has changed dramatically. Thus, there has arisen a need to identify ways in which governments, the development community at large, and ADB in particular, can offer more effective financial and policy support for Asian rural development in the new century.

In response to this situation, ADB has undertaken a study to examine the achievements and prospects of rural Asia and to provide a vision for the future of agriculture and rural development in Asia into the next century. The objective of the
The Quality of Life in Rural Asia

study was to identify, for ADB’s developing member countries in Asia, policy and investment priorities that will promote sustainable development and improve economic and social conditions in the rural sector.

The study was designed as a team effort, using ADB staff and international experts under the guidance of an ADB interdepartmental steering committee. To address the diverse issues satisfactorily and in a comprehensive manner, five thematic subject areas were identified to provide the analytical and empirical background on which the study’s recommendations would be based. Working groups of ADB staff were set up to define broadly the scope and coverage of each of the themes. The five working groups acted as counterparts to international experts recruited to prepare the background reports, providing guidance to the experts and reviewing their work to ensure high-quality output.

A panel of external advisers from the international research community was constituted to review and comment on the approach and methodology of the study and the terms of reference for each of these background reports. The external advisers also reviewed the draft reports. In addition, external reviewers, prominent members of academe and senior policymakers, were appointed to review each of the background reports and provide expert guidance.

The preparation of the background reports included four workshops held at ADB’s headquarters in Manila: an inception workshop in May 1998; two interim workshops in November 1998 and January 1999, respectively, to review progress; and a final workshop in March 1999 at which the background reports were presented by their authors to a large group of participants comprising senior policymakers from ADB’s developing member countries, international organizations, international and locally based nongovernment organizations, donor agencies, members of academe, and ADB staff.

The five background reports, of which this volume is one, have now been published by Oxford University Press. The titles and authors of the other volumes are:
Foreword

The results and recommendations from the study were presented at a seminar during ADB’s 32nd Annual Meeting in Manila. These have since been published by ADB as a book entitled Rural Asia: Beyond the Green Revolution.

The findings from the study will provide a basis for future discussions between ADB and its developing member countries on ways to eradicate poverty and improve the quality of life in rural Asia. The volumes in this series should prove useful to all those concerned with improving the economic and social conditions of rural populations in Asia through sustainable development.

Tadao Chino
President
Asian Development Bank
This study of the quality of life in rural Asia lies at the intersection of two distinct, independent, and evolving lines of inquiry: first, the benchmark studies sponsored by the Asian Development Bank (ADB) in the late 1960s and late 1970s on Asian agriculture and rural Asia; and second, an emerging body of more broadly based academic work on the nature, measurement, and process of social and economic development. The increasing attention being paid to quality of life is apparent in both sets of literature. ADB’s first study (Asian Agricultural Survey; ADB, 1969) focused on agriculture, with relatively low priority given to poverty reduction and quality of life per se. The second ADB study (Rural Asia: Challenge and Opportunity; ADB, 1978), while maintaining an emphasis on agriculture, took clear note of the well-being of Asia’s rural people as a central goal of the development process. The earlier development literature was more narrowly focused on income as the main determinant of quality of life, a perspective that has broadened in recent years to include other measures: income is increasingly seen as but one means to development, the true ends of which are the capacity to establish entitlements over such commodities as food and education, the ability to enjoy a long and healthy life, freedom, and security.

The present study endeavors to expand the focus of ADB’s inquiries into the living standards of Asia’s rural peoples, drawing upon recent advances in development thinking that assess development performance from the standpoint of its impact on quality of life, and focusing on the links between its numerous aspects and the broader institutional context.
We would especially like to thank two colleagues for their help in preparing different parts of the manuscript: David Steven (Defining the Quality of Life, and extremely helpful comments and suggestions throughout) and Eben Kenah (Coping With Adversity: A Case Study of Flooding in Bangladesh).

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Finally, the authors wish to register their appreciation to Alice Dowssett, Nancy Juskin, Sarah Newberry, Viviana Vasquez, Anne Sweetmore, and River Path Associates for strong administrative and editorial assistance.

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I  The Quality of Life

Over two billion people—slightly more than one in three inhabitants of the planet—live in rural Asia, more than double the population of Latin America and Africa combined. Helping such a huge and growing population to achieve fulfilling lives is a daunting challenge. It must be confronted forcefully, with great imagination, and with a determination that new initiatives are implemented thoroughly and effectively.

People need many things to live fulfilling lives. Sustenance and security; freedom and community; wealth and health; self-actualization and self-esteem: all these contribute to the quality of human life (see for example Maslow, 1968, for the classic statement of a ‘hierarchy of needs’). By focusing on quality of life (QOL), the intention is to take a broad and holistic view of rural Asia’s development, with the conviction that a QOL perspective will help Asia’s leaders develop policies that reflect the aspirations of their people and lead to powerful synergies between the social, human, and economic spheres.

Income is a powerful indicator of the QOL that people enjoy and has become the dominant measure of human well-being. Income poverty is widely associated with misery in the public imagination, and researchers have shown strong links between subjective well-being and income levels (Easterlin, 1973; Ahuvia and Friedman, 1998). Across the rural segment of the developing world, an income focus is associated with a concentration on improving agricultural productivity, with the expectation that rising agricultural output will promote higher rural incomes, automatically leading to improvements in QOL. This perspective is supported by considerable evidence showing links running from agriculture through income to a broad range of QOL indicators.
Recent thinking and related evidence, however, suggest that there is more to QOL than income alone. Health, education, political freedom, participation in civil society, and the status of women are all important components of QOL. These factors are bound to each other, and to income, in a complex network of two-way relationships. Educated people tend to be healthier, for example. But poor health keeps children out of school and slows their learning. Healthier people are better able to work and thus become wealthier, while rich people have more money to spend on health. The positive feedback between education and income is also well recognized. Yet the link between income growth and life improvements may often be rather tenuous. Easterly (1999) uses panel data over a 30-year period to show that for many of the aspects of life quality of interest here, there may be little relationship to growth, or the payoffs to QOL from growth may be quite far in the future. This suggests that policymakers concerned with QOL would be wise to focus on other strategies in addition to promoting growth.

Income, meanwhile, is not a wholly reliable measure of QOL. It is usually measured in averages and does not take into account the distribution of wealth within groups. Nor do income measures value amenities that are not priced in the market, such as environmental quality, physical security, freedom, or unpaid work (mostly undertaken by women). A focus on income has also led many policymakers to believe that technological change and rising capital stocks are the most natural and effective drivers of income. This has depressed investment in human and social capital, which can provide equally powerful ways of helping a society enjoy economic growth and improved living standards. Amartya Sen has pointed out that, in some countries, QOL seems to be significantly higher than income levels would suggest, citing Kerala in India and Sri Lanka as examples where higher than expected levels of general health and education are found despite low incomes (Sen, 1988).

*The Quality of Life in Rural Asia* explores the nature of QOL and discusses some difficulties in defining the term. It provides a detailed survey of current levels of QOL enjoyed
by rural Asians, compared both to those living in towns and cities in Asia and to those living in other rural parts of the developing world. It outlines a number of policy options for improving QOL in rural Asia and describes some of the key challenges the future is likely to bring. We are entering a faster, more integrated global economy, with technology driving a complex and extensive set of economic, political, and social challenges. The effects of these developments are far-reaching and are already being felt in even the most remote parts of Asia. As the world changes quickly, there is a need to make sure the two billion rural Asians benefit and do not fall further behind.

FOCUS OF THE STUDY

This study has three central objectives: (a) to take stock of trends and patterns in QOL in rural Asia; (b) to identify and analyze options for private and public policies and programs to improve QOL in rural Asia; and (c) to assess future prospects for QOL in rural Asia in light of major influences such as globalization, privatization, democratization, decentralization, and technological change.

The study helps expand the focus of the Asian Development Bank’s inquiries into the living standards of Asia’s rural peoples. It benefits from recent advances in development thinking that have concentrated renewed attention on the importance of a broad understanding of what development means to people and why it is important. Asia has experienced many successes over the last 20 years and considerably fewer reversals. Agricultural productivity has grown rapidly, with fewer people growing more food, while governments have made huge investments in rural infrastructure. However, although we know a great deal about agriculture’s contribution to Asia’s emergence, we know much less about the behavioral and institutional factors that promote or impede the distribution of agriculture’s benefits to rural Asia. Also unclear are the factors
that promote much-needed diversification of rural economies, the nature and strength of possible reverse links between QOL and the agricultural sector, and how globalization and improvements in urban areas may have filtered back to affect QOL in rural Asia.

**STRUCTURE**

This book is structured in the following manner. Chapter II explores the origins and history of the concept of QOL in an attempt to provide a more rounded view of individual needs and aspirations than that provided by income alone. It outlines some quantitative and qualitative approaches to measuring QOL, showing that QOL outcomes, opportunities, and agency can be measured and analyzed. The study of QOL is seen as promoting fertile exchanges between different disciplines, and between the perspectives of researchers and those being researched. Ultimately, methods of measuring QOL must depend on the use that any set of indicators will be put to, combined with the type of data that it is cost-effective to regularly collect and analyze.

Chapter II includes a new framework for understanding QOL in rural Asia. While QOL has many direct effects on development, the indirect effects, both positive and negative, that run between different QOL factors are highlighted here. These can lead to powerful virtuous or vicious spirals, with positive or negative feedback driving rapid developmental changes. If policymakers understand these complex systems, it is argued, they have an opportunity to develop a balanced portfolio of policies designed to instigate new virtuous spirals, build momentum within existing spirals, and prevent negative spirals from picking up speed.

The QOL framework is developed to focus on QOL within a rural context. It examines the difference between rural and urban labor markets and the rich relationship between rural and urban areas, with labor and remittances
the most obvious flows between towns and country. Rural areas are found to have growing links with the global economy, although the level of integration is much less than that experienced by urban markets. Rural areas currently enjoy a risk–return trade-off. When times are good they experience less benefit from the global economy, but they are also somewhat buffered from the effects of global economic crashes, as shown by a case study of the Asian financial and economic crisis.

Chapter III takes stock of trends and patterns in QOL in rural Asia. Both direct and indirect measures of QOL are used and, where possible, data for different points in time in order to assess whether rural living standards have improved or deteriorated in recent years. Indicators for nutrition; health; education; income; gender equality; fertility; political, civil, and economic freedom; environmental quality; access to infrastructure; and access to information are all used, as well as a series of indexes of the general state of social and human development. Because rural Asia encompasses enormous ecological, demographic, social, and economic diversity, frequent comparisons are made among Asia’s different countries and subregions (East Asia, Southeast Asia, South Asia, and Central Asia). We include a number of approaches to defining rural areas, including a new approach that uses data from a geographic information system to provide a uniform measure of population density.

Qualitative data are included to provide a context for the quantitative analysis. These data are derived from a select number of focus groups, run in three countries and designed to allow the voices of rural Asians to be heard. The qualitative data highlight the importance of improved infrastructure to people’s lives and the strong demand for education. The results also reveal an awareness of the trade-offs that must sometimes be made between opportunity and security, as well as concern about the fate of traditional social structures in the modern world.

The following two chapters consider the policy environment and the ways that policy interventions can
influence QOL. Chapter IV examines the role of institutions, a term that includes formal organizations such as bureaucracies, as well as the formal and informal rules that mediate the options open to organizations, communities, families, and individuals. Institutions are seen to have a critical influence on levels of QOL, as well as on the design and implementation of policies aimed to raise the standards of QOL that people enjoy. However, this is not a one-way relationship. Institutions are in constant flux, although change is often slow. QOL policies can be designed to try to promote ‘virtuous institutions’, which are relevant to contemporary society and able to meet people’s needs in a timely and efficient fashion.

Chapter IV focuses on three different institutions: civil society, gender, and human rights. Studies of QOL usually adopt an individual perspective and concentrate on health, education, nutrition, etc. The present examination of civil society provides a corrective to this, emphasizing the importance of social capital to development. Explored are the nature of trust in rural societies and the importance of strong networks of association in the space between family and State. The importance of civil society is underlined by a case study of flooding in Bangladesh. This reveals that the most recent floods in Bangladesh, although of immense ferocity, had less dramatic human consequences than earlier disasters. Part of this improvement appears to be due to the strengthening of state institutions and their greater accountability to the people affected by flooding. However, nongovernment organizations (NGOs) emerged as crucial actors in the aftermath of the flood, by delivering relief, focusing government and donor efforts, and helping to kick-start reconstruction. Improved social organization, it appears, was a literal life saver for thousands of people.

Chapter IV also discusses the importance of agency and various types of freedom to human rights. An exploration of the institution of human rights highlights the importance of applying widely accepted standards of minimum levels of human welfare to QOL in rural areas. Attitudes to human rights also reveal the importance of successful implementation.
Most Asian countries have made attempts to eradicate debt bondage from their countries, for example, but debt bondage still has a strong hold in many countries, especially in rural areas. Ways in which groups can be enabled to assert themselves more effectively, and how strengthened civil society can underpin a fuller and more permanent expression of human rights are discussed here.

Finally, the discussion of gender highlights the importance of the formal and informal rules that govern how we think about men and women, the roles they play within society, and their prospects for the future. Gender is found to have a strong influence on rural society, where what may be loosely described as ‘traditional’ attitudes are relatively more dominant than in Asian towns and cities. Women are critical to development success and, in many ways, have more influence on QOL than men. The influence of gender on health, education, and work is explored, as well as women’s role in creating social capital through their ‘kinwork’ that helps build and maintain a rich network of relations between family units and their communities.

Chapter V analyzes options for private and public policies and programs to improve QOL in rural Asia. The inquiry covers five principal areas of policy intervention: income generation; rural infrastructure; household energy sources; social service provision; and the development of rural financial institutions. Within each area, arguments and evidence related to the impact of specific policies on rural QOL are reviewed. An attempt is made to draw conceptual distinctions between the direct effect of policies on their target QOL indicators and any indirect effects on QOL that may result through the interaction of different components of QOL. The goal is not merely to catalog interventions according to their degree of success in improving rural QOL, but to uncover those principles of success and failure that are broadly applicable and transferable to other settings, as distinct from those that are specific to a particular context.

Chapter VI assesses future prospects for QOL in rural Asia. The demographic challenges of the next 50 years are explored in detail, with discussion of factors inhibiting the completion
of the demographic transition (from high fertility and mortality to low fertility and mortality) in rural areas. Asia’s population is rapidly aging. How rural Asia will cope with growing numbers of old people is explored. Also, the likely impact of continuing demographic change on gender equity is discussed.

HIV/AIDS is seen as a major, and growing, threat to rural QOL, and also as an example of how a health crisis can quickly depreciate many years’ investment in human and social capital. The nature of the Asian epidemic is described and a number of opportunities for action detailed. Finally, this chapter explores the context for future development in rural Asia in the light of major influences such as globalization, privatization, democratization, decentralization, and technological change. These have the potential to reshape the structure and performance of all national economies in Asia—and offer huge potential for visionary policymakers.

RESEARCH STRATEGY

Even though rural Asia has a larger population than any other major region of the world, data pertaining to QOL in rural Asia are remarkably scanty, and certainly no master data set exists on which a coherent and meaningful analysis could be based. Considerable effort has been made to assemble a variety of databases and other sources of information relevant to the goals of this study. The main database for the study consists of a set of indicators of QOL for Asian and nonAsian countries. Many of these indicators are available at different points in time, thereby permitting an examination of trends. Some (although a minority) are available separately for rural areas within Asian countries. The QOL indicators are drawn from a variety of sources, including the World Bank, the United Nations Population Division, the United Nations Development Programme (UNDP), and the World Resources Institute. These sources are also drawn upon for the ‘explanatory’ variables, and for alternative measures of the rural share of national
populations (for example, the proportion of the population living outside large cities, the proportion of the labor force working in the agricultural sector, and population density).

The second major source of information consists of individual and household surveys. Some of these, such as the Demographic and Health Surveys and the World Bank’s Living Standards Measurement Surveys are reasonably comparable across the handful of countries in which they are conducted, but are generally unavailable for more than one point in time. Others, such as India’s National Sample survey and labor force surveys in various countries, are available at several points in time, but are generally not available for recent years.

The third main source of data is focus groups conducted in several villages in the People’s Republic of China (PRC), India, and Thailand. Although the information gained from these inquiries is no more than suggestive, it was deemed essential to base the study at least partly on direct observation of rural conditions, and not solely on secondary data and literature. Focus groups appeal as a vehicle for allowing rural people to define QOL in their own terms, which may differ from the categories that typically appear in national and household databases. Focus groups also have the advantage of being more up-to-date than existing databases. In addition, if they are well designed and well facilitated, focus groups can reveal valuable information that would not be found even in the most carefully executed household surveys. The interaction of peers promotes honest revelation and brings out themes and associations of concepts and ideas that would be unknowable in advance to researchers.

The conduct of an extensive set of fundamentally new causal analyses is beyond the scope of this study. However, the literature offers many useful analyses that can inform the present study and are drawn upon here. Gaps in the literature and some corresponding research opportunities are identified. Finally, some in-depth case studies are presented of efforts designed to promote QOL in rural Asia, including one focused on the manner in which Bangladesh coped with the severe floods experienced in 1998.
Reliable information and data are today viewed as indispensable tools for policymakers. However, the current policy environment suffers from an extraordinary lack of information about rural areas that is not conducive to good policymaking. Changing this situation should be a priority for national and international organizations. Throughout this study, reliance was placed on the best available data on rural population shares, as collected and reported by various United Nations statistical agencies. The present results are not qualitatively sensitive to the use of alternative measures of rural population share, which are defined in a relatively uniform manner across countries. However, this approach is only an imperfect substitute for collecting better data, as these alternative measures also have their limitations.

This is clearly an area in which much scope remains for imagination and effort. Unfortunately, the task will be anything but routine given the well-known difficulties and expense of data collection in rural areas. We suggest the formation of a multisectoral and multidisciplinary regional or international task force, charged with making recommendations concerning the efficient collection of internationally consistent and high-quality data relevant to academic and policy research on rural development and QOL. There are potentially numerous country-specific measures differentiated by urban and rural areas that would be of use in ongoing assessments of rural QOL, such as the purchasing power of cash in rural and urban areas, or measures of social capital. But a properly convened task force would determine many more.

Perhaps the best starting point for the task force would involve seeking to establish common definitions of rural and urban areas, much like the International Labour Organisation has done in providing widely accepted operational definitions for such basic concepts as labor force participation, employment, and unemployment. The size of rural populations is extremely sensitive, for example, to whether the threshold at which a population is classified as urban is several hundred people or several thousand. In the absence of an internationally uniform classification system, such taxonomic differences can wreak
havoc with research studies in which rural and urban status plays a prominent role. The problems can only be expected to multiply as the sharp urban–rural distinction continues to fade.

Rural life in Asia is changing rapidly. As noted, the growth of rural infrastructure and services, of migration, and of nonfarm employment, along with ever-expanding urban centers, means that the lives of many rural Asians are less tied to the land and more intertwined with urban life. In many cases, this brings tremendous advantages to rural areas in terms of increased opportunities for work and trade, flow of goods, conveniences, and other appurtenances of modern life. Yet these changes also have their drawbacks: increased pollution; breakdown of traditional values and social support systems; and in some cases, increased economic insecurity because of the higher risks incurred by diversifying out of traditional food crops.

Related to this greater complexity, diversity, and integration of rural and urban life is a vision of what constitutes rural development and how to achieve it. The focus throughout this work is on the centrality of QOL as the goal of rural development. In light of the determinants of economic growth and QOL presented here, it is no longer sufficient to view improved agricultural productivity and income growth as being the dominant pathway to improved QOL. These fail to recognize the myriad of nonincome factors that influence QOL, and also neglect the stimulus to economic growth provided by QOL improvements.

The very complexity of rural life today is what puts the deficiencies of the old model into such stark relief. It is the authors’ hope that the information and framework presented in this book will encourage members of policy communities to look at their own roles and options in light of a new model that shows the tremendous interconnections among policy areas. We also hope that the lessons from this book will encourage activists and citizens who are seeking to ensure a higher quality of rural life, not only through their own deeds and participation, but also through pressure on elected and appointed officials. Working together, these groups can turn the prospects for rural Asia into a bright future.
II  DETERMINATION OF THE QUALITY OF LIFE

A fundamental premise of this book is that QOL is determined by a variety of interacting factors, both economic and noneconomic, whose effects on QOL are mediated by a society’s institutional landscape. This chapter explores the difficulties of defining QOL, concluding that the concept is important despite (or even because of) its lack of precision.

A framework is developed that draws attention to the multiplicity of factors associated with QOL and highlights the importance of positive and negative interactions between different components. The importance of institutions is explored, as are the relations between rural QOL and a wider urban and global context, an issue brought alive by a case study of the Asian financial and economic crisis.

DEFINING THE QUALITY OF LIFE

Improving QOL is now a common aim of international development. However, identifying robust QOL indicators, or providing a coherent and robust definition of the concept, remains problematic.

The difficulty is not a new one. Amartya Sen refers frequently to Aristotle’s comment in the *Nicomachean Ethics* that “wealth is evidently not the good we are seeking; for it is merely useful and for the sake of something else” (Sen, 1999).

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1 This section was written with David Steven of River Path Associates.
That ‘something else’ is happiness, produced by living well and doing well. But as Aristotle warned “with regard to what happiness is [people] differ, and the many do not give the same account as the wise.” Clearly, we are no nearer than Aristotle to deciding what constitutes human happiness or well-being—and may not agree with his strictures. QOL can inevitably be conceived in different ways according to viewpoint, and the term is likely to remain controversial.

This imprecision is compounded by the fact that QOL is more than a synonym for well-being, it is intended as a measure of it, allowing organizations to quantify how well-off people are and to track changes in levels of happiness over time. According to Land’s survey of social indicators, this effort was born when the US National Aeronautics and Space Administration (NASA) decided, in the mid-1960s, that it needed to measure the effects of its space program on American feelings of well-being (Land, 2000). Researchers from the American Academy of Arts and Sciences responded to the challenge by developing social indicators, and a new form of social reporting was born (Bauer, 1966). They, and all subsequent researchers, faced four distinct issues: first, the method by which QOL is measured; second, the domains of human existence that are included in the measurement (and who makes this decision); third, at what scale the measurement is carried out, whether for individuals or groups; and fourth, how to provide outcomes that have practical value for end-users, by allowing comparisons across individuals and groups, and over time.

The Measurement of QOL

Two distinct methods of measurement can be identified, based on either objective or subjective measures. Objective QOL measures are formed from one or more descriptive indicators that are felt to constitute reasonable proxies for what economists refer to as utility. They are well suited to describing the main features of social change and the development
process. They can also be refined to measure the interaction of various factors considered to be important components of QOL (Land, 2000).

The Physical Quality of Life Index (Morris, 1979), based on measures of health and education, was a major step in measuring QOL. It was followed by a number of widely promoted QOL indices produced by the UNDP. The Human Development Index (HDI), introduced in 1990 by Mahbub ul Haq and colleagues, reflects achievements in “the most basic human capabilities—leading a long life, being knowledgeable and enjoying a decent standard of living” (UNDP, 1999). These are measured through life expectancy at birth, educational attainment (adult literacy rate and combined primary and secondary enrollment ratio), and income per capita. The UNDP also produces the Gender-related Development Index (GDI) as well as a Gender Empowerment Measure (GEM). The GDI adjusts the HDI for gender inequality across each of its components, while the GEM measures gender inequality in terms of economic and political opportunities enjoyed by women. There are also a number of indicators that look separately at individual elements considered important to QOL, such as health, education, or political participation.

In theory, a simple objective index such as the HDI has two strengths: it is easy to compile regularly, providing longitudinal data; and includes a large number of countries (or other jurisdictions or demographic groups), providing comparative data. Achieving these strengths in practice, however, has not always proved possible. Accurate data are often not available, and methodological changes resulted in the 1999 HDI being calculated on a different basis from that in previous years. According to the UNDP, “if a country ranks higher or lower on the HDI ... that does not necessarily mean that its state of human development has deteriorated or improved.” Critics have also noted the arbitrary nature both of the components included in the different indices, and of the mathematical formulation used to combine them on a single scale.
Objective measures also beg the question of who decides which domains of human existence should appear in an index. This decision can be made by the researchers themselves, or by sampling the views of the individual or groups to be researched. Both methods are problematic, and researchers face a classic dilemma. If the researcher selects indicators, comparison across groups is possible, but it may be the researcher’s value system that is being measured. If stakeholders select the indicators, however, comparisons between groups, and even between individuals, become impossible because today, as in Aristotle’s time, people inevitably have different views of what constitutes happiness.

Quantitative and Qualitative Measures

Subjective measures try to circumvent this problem by measuring perceptions of well-being directly, rather than through proxies. This approach allows for the possibility that there may be a direct, indirect or even paradoxical link between people’s objective conditions and their subjective well-being (Gleick, 1999). Again, different types of subjective measurement are possible. Indicators can be quantitative, and a number of surveys measure subjective perceptions in order to create life satisfaction, well-being, and happiness indicators (Campbell and Converse, 1972). The World Database of Human Happiness, for example, based at the Erasmus University in Rotterdam, provides a Bibliography of Happiness, a Catalogue of Happiness in Nations, a Catalogue of Happiness Correlates, and a Directory of Happiness Investigators². Another large-scale multinational undertaking, the World Values Study, is a longitudinal investigation in over 60 countries that examines, among other themes, life satisfaction and its correlates.

² www.eur.nl/fsw/research/happiness
Qualitative descriptions of QOL are also possible, formed by eliciting QOL perceptions via techniques such as focus groups and in-depth interviews. While these techniques do not deliver rigorously measurable results, they do offer richly detailed accounts. However, some argue that their very richness is a source of weakness, in that the resulting data are necessarily open to a variety of interpretations. Yet paradoxically, qualitative methods, despite their imprecision, are most used by those with immediate practical decisions to make, such as marketing professionals making commercial judgments, politicians judging public opinion, and development workers on the ground.

Large-scale qualitative studies are rarer, although the World Bank has recently undertaken a major qualitative research effort, Consultations with the Poor, examining poor people’s perceptions of poverty. By pulling together the voices of 60,000 poor men and women from more than 60 countries, drawn from 95 participatory poverty studies, the World Bank believes that findings emerge that are compelling, sobering, and sufficiently rigorous. They also provide a context for the ‘harder’ measures to be used in the 2000/2001 World Development Report (World Bank, 1999).

**Domains of QOL: Outcomes, Opportunities, and Agency**

The domains of human existence included in a QOL measurement can be conceptualized in three main ways. First, and most simple, are QOL outcomes, such as those measured through the HDI. Second are QOL opportunities, which focus on the importance of human potential. The third is QOL agency, which asks not whether the playing field is level, but who is allowed on the field to play.

A focus on opportunities relies on the classic liberal view that equalizing outcomes actually diminishes QOL. As Milton Friedman put it, the “resultant inequality of income is surely required to permit the individuals in question to make the most of their initial equality.” (quoted in Kanbur, 1987). In response
to this critique, many policymakers are shifting focus from policies that encourage social welfare, to action to combat social exclusion. Indicators are therefore needed that reflect likely future outcomes and an individual’s perceptions of his or her prospects. An indicator of education, for example, measures something that may not have tangible effects for some years, but can have an immediate effect on perceptions of well-being. The flip side of opportunity is risk. Decreasing vulnerability to health shocks, for example, may make persons feel more secure, even though their QOL, as measured through outcomes, remains unchanged. Furthermore, the perception of freedom from a certain kind of risk may encourage people to take other risks, by seizing opportunities with greater enthusiasm. This could, in turn, have beneficial outcomes for them and for a wider group, adding to the sum QOL.

A focus on QOL agency is also possible. Justice, political participation, and freedom, as well as levels of trust and social capital, all reflect the individual’s relationship to the wider community (Fukuyama, 1999), with some researchers attempting to prove a link between levels of democracy and well-being. Amartya Sen has argued strongly for the importance of democracy as a contributor to QOL opportunities and outcomes. In a democracy, he argues, people are more able to control the direction of their lives. They also benefit from an implicit social contract with the rulers they elect. As Sen points out, no functioning democracy has ever suffered a famine.

The importance of democracy and social participation to QOL is highlighted by several factors: the so-called third wave of democratization that has affected many countries, including some Asian countries, since the late 1970s (Huntington, 1991; Diamond et al., 1997); the globalization

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3 Huntington (1991) has characterized the global political history of the past two centuries as consisting of waves of democratization. These occurred as many countries transformed themselves into democratic systems during the period. The first wave lasted from 1828 to 1922; the second followed
of democratic discourse (Sheth and Nandy, 1996); and the contemporary promotion of decentralization as a way to empower citizens.

As a result, investigators have developed measures such as the Freedom House’s Index of Freedom, and Sen has used the concept of freedom to create a unified theory of QOL, defining it as “having more freedom to lead the kind of lives we have reason to value” (Sen, 1999). In many ways, however, this returns us to Aristotle. Sen’s ‘freedom’ and Aristotle’s ‘happiness’ are not single concepts, but must be determined according to people’s different preferences and values.

**Individual and Group Measures**

Sen’s view of freedom tends to focus on the individual and is consistent with the post-enlightenment belief that individuals are sovereign over their own preferences except when they impose on the preferences of others. Indeed, as Land argues, the social indicator movement has its roots in the powerful individualism of the 1960s. However, it is equally valid to measure QOL for a group or community—and by no means inevitable that the needs of individual and group will coincide.

Although a focus on the individual leads to a certain kind of relativism (each person makes his or her own choices), it also relies on absolute values: each person must have the freedom (and the capability) to make these choices. This allows for an external critique of standards prevalent in any society. In development, for example, it encourages outsiders—whether development agencies, human rights groups, or development NGOs—to argue for the rights of individuals or marginalized World War II and lasted until 1962; and the most recent or third wave began with the Portuguese revolution of 1978 and has spread to previously authoritarian or totalitarian regimes in Asia, Southern and Eastern Europe, and Latin America (Kurzman, 1998).
groups within a sovereign state. The partial rejection of income as a proxy (and the once fashionable idea of a ‘trickle down’ effect of wealth) has been driven by the disaggregation of the interests of individuals within a group, and the argument that notions of community may hide complex differences in wealth, gender, age, or origin (DFID, 1999).

In particular, QOL has been used to improve understanding of how two groups—poor people and women—fare as income and a range of social indicators shift. Poverty may be most commonly defined according to income, but QOL-based indicators are increasingly used to measure more precisely the changing position of poor people, to raise awareness of their needs, and to target more effective assistance. Nussbaum and Sen (1993) argue that “a universal account of human functioning seems to have critical potential” when exploring the role of women.

There are criticisms of QOL’s focus on the individual, however. Richard N. Cooper has criticized Sen for failing to tackle how to balance the freedom of the individual against a society’s need for security and stability (Cooper, 2000). It is possible for an individual’s QOL to impinge on that of a wider group in quite subtle ways and not just when, say, one person appropriates another’s goods for his or her own enjoyment. Individualism, without a concomitant notion of responsibility, may be associated with declines in social capital, which some have associated with rising levels of crime, family break-up, and other signs of social breakdown (Fukuyama, 1999). It is no easy task to measure the freedom or capability of an individual. Measuring the freedom or capability of a group is far harder, when this measure may be different from the mean of the capabilities of all member individuals. Balancing the two—and reconciling the rights of an individual with his or her responsibilities—presents further difficulties.
The Uses of Indicators

Ultimately, the process of developing QOL measures must be driven by their purpose. A useful distinction can be made between communicative indicators, which help focus public attention on a set of issues, and managerial indicators, which help target inputs and measure outcomes. The former must aim for public resonance, while the latter must be robust (Grove-White, 1997). Sen quotes Mahbub ul Haq as demanding that the HDI should be “a measure of the same level of vulgarity as GNP—just one number—but a measure that is not as blind to social aspects of human lives as GNP is.” According to Sen, this makes the HDI “inescapably a crude index, [which] must not be seen as anything other than an introductory move in getting people interested in the rich collection of information that is present in the Human Development Report” (Sen, 2000).

Some see the move to communicative indicators as part of a wider trend (Land, 1996), with Vogel (1997) arguing that the purpose of social indicators should be “to send signals to governments, business, other organizations and the general public”. The use of communicative indicators can damage perceptions of their objectivity, as the neologism ‘advocacy stats’ reveals.

Managerial indicators, by contrast, are often more complex and tend to avoid the production of easily understood summary values. In the UK, for example, the Department of the Environment, Transport, and the Regions is committed to measuring QOL and sustainable development through a new and complex set of some 200 indicators, some of which are currently “too complicated to collect” (DETR, 1999).

The field of medicine provides an interesting example of the use of QOL to make specific managerial decisions. Historically, mortality and morbidity indicators have tended to be reliable, and from an early point provided managerial indicators. More recently, the health sector has developed a range of more sophisticated QOL indicators related to health outcomes, often for specific diseases and conditions. Again, indicators have been developed both for individuals and for
aggregated populations. Indicators measuring individual QOL usually make a trade-off between length and quality of life, measuring an individual’s happiness with life across domains he or she considers important. Such measures are seen as part of a trend toward medicine defined by patients’ needs, rather than professional expectation (Epstein, 1997). This type of measure is considered especially important when treatment has unpleasant side effects, as well as when positive outcomes are uncertain or transitory.

Indicators that consider population aggregates are intended to allow for the more rational allocation of treatment resources, with treatments evaluated in terms not only of cost and objectives outcomes, but also in terms of a patient’s subjective perception of the effect of a treatment (O’Connor, 1993). However, even when the required outcomes of QOL measures are tightly constrained in this way, there are still formidable obstacles to their use. Measurements are seen as “soft, cumbersome and lacking in credibility, with the adoption of measures hampered by conceptual vagueness, the use of tools of dubious quality, the inappropriateness of methods, and the weakness of statistical analysis of resulting data” (Fallowfield, 1996).

Making Compromises

Ultimately, the ambiguous nature of the concept of QOL may be one of its most important characteristics. Income is certainly only one of many instruments that may lead to well-being, but the suggestion, supported by intellectual rigor and common-sense intuition, that such states cannot be meaningfully observed directly, and therefore cannot be compared across individuals or aggregated into a measure of social happiness, is surely also correct.

An attempt to bridge this divide with ‘good enough’ measures that aggregate various proxies may never yield final results, but this does not remove its usefulness. Indeed, the ambiguity itself has advantages. It demands compromise
between different disciplines, bringing together the intellectual traditions of economics, sociology, and philosophy, and exposing them to the demands of those who will make real-world decisions based on their findings. The process of measurement demands ongoing debate about methods and priorities. This book joins that debate and attempts to bring to the discussion both a framework for considering QOL, and a wealth of information about current and future prospects for QOL in rural Asia.

Plato quotes Socrates as remarking that “the unexamined life is not worth living”. We believe that the pursuit of a ‘good life’ is as relevant and important for the thinking of policymakers as it is for individuals. Considering QOL thus confers validity on this pursuit and provides concepts and measures which, when interpreted with care by policymakers and citizens alike, provide revealing and informative content.

QOL FRAMEWORK

This study attempts to draw as broad a picture as possible of QOL, even though this raises some practical difficulties. We believe a broad perspective is especially important for policymakers, who must develop and implement new policies with an understanding of the rich network of links between different dimensions of QOL.

Some links are direct and easy to understand, but indirect links also have a huge effect. They are often neglected by policymakers, who need to be aware of both unanticipated consequences and positive feedback when they assess the true effects of changes in the components of QOL.

Negative Indirect Links

There are many examples of negative indirect links between different QOL components. The most obvious are
when the state makes choices between different QOL priorities. Increased spending on schools may leave less money for health, or vice versa. Quality versus quantity trade-offs often arise when access to a service is rapidly broadened. Developing countries have struggled to expand access to primary education in recent years, offering an education to many poor rural children for the first time. However, educational quality has often suffered initially from fewer resources per child and an insufficient supply of qualified teachers.

The environmental Kuznets curve\(^4\) shows a similar effect, with pollution rising as poor countries become richer. Only when a threshold is crossed do countries give priority to cleaner technologies and stricter regulations, leading to gradual environmental improvement. Rising national income due to industrialization raises QOL on the one hand, but on the other hand decreases it for those living in polluted areas. The latter may suffer further indirect effects if increased pollution raises the incidence of disease or chronic illness.

Significant improvements in QOL often result from major social changes, and these changes may have unwanted side effects. A shift to a cash economy, for example, is usually a positive gain in itself, but it may erode traditional family or community ties. It may also have different effects on men and women. In rural India, household food security can be compromised when payment for labor shifts from grain to cash, because the social designation of cash has traditionally been a male prerogative. Women often have less control over

\(^4\) The "Kuznets curve" is an inverted U-shaped relation between income inequality and average income. The relation suggests that inequality increases as average income rises, then declines with further rises in income. Over the years, modest empirical evidence has been assembled in support of this relation. It also has a plausible conceptual foundation related to the functional and spatial reallocation of labor during the process of economic growth (from traditional rural-centered economic activities such as agriculture and fishing to modern urban-centered industrial and commercial activities). For further discussion see Kuznets (1979).
cash incomes, and hence less ability to feed their families than when they received their earnings as grain.

**Positive Indirect Effects**

Investment in QOL does not always involve trade-offs, however. Upward movement in one variable may have an immediate impact on a person’s QOL, but may also indirectly increase it by acting on other variables that in turn also have a beneficial effect. One of the most studied relationships is between health and income. Higher income leads to better health (Lee, 1982; Ettner, 1996; Pritchett and Summers, 1996), but better health also leads to higher income because of better productivity and labor force participation (Luft, 1975; Grossman and Benham, 1980; Lee, 1982; Bloom and Malaney, 1998; Bloom and Sachs, 1998; Bloom and Williamson, 1998; Bloom et al., 1998; Bloom and Canning, 1999).

An undisputed two-way interaction is also apparent between education and income, with higher income being both the result and the cause of obtaining more education. There is also a strong interaction between education and health. For example, iron-deficiency anemia leads to lower IQ and educational achievement among school children (Soewondo et al., 1989; Pollitt, 1993, 1997), while children who are often absent from school are likely to achieve less. Because of the links between education and income, good health can indirectly improve QOL through its influence on education and therefore income (Boissiere, Knight, and Sabot, 1992; Knight and Sabot, 1990).

Investigators have observed other, less obvious links. Gender is an especially important influence because of its policy implications. Increasing women’s education not only raises their QOL, but also has a greater positive impact on health than increasing education for men, leading to decreases in both infant mortality and malnutrition. Similarly, investigators have shown that a mother’s level of educational achievement has a greater impact than that of a father on children’s school
performance (Riddell, 1989), which may eventually translate into higher wages if better performers stay in school longer.

Education also enhances social participation, a key ingredient in QOL. People who are more educated tend to feel less exploited and less powerless, and have a greater sense of being able to influence decisions that affect their communities (Putnam, 1993). Investigators think that income levels also affect political participation. They generally believe that higher income leads to greater participation because it means higher social status and greater political awareness (Pei, 1997). For this reason, the rural poor are often seen as having low participation and political efficacy, although this is not always the case.

In the other direction, social participation is believed to be beneficial for QOL, both directly and indirectly, through its effects on people’s health and well-being. Kennedy et al. (1998) have linked very low levels of confidence in civic structures with falling life expectancies. Levels of trust in local government, for example, account for 14 percent of the variation on total male mortality among Russian regions, with disengagement from politics also correlating with male mortality. The researchers also found links between crime, conflict at work, and mortality, showing the importance of social cohesion. They comment: “those who have access to social capital get ahead; those who do not get sick and die.”

**Virtuous and Vicious Cycles**

Figure II.1 lays out a framework for understanding QOL. It builds on earlier ideas about economics and human development by indicating the direct effects of income, education, and health on QOL. It also shows examples of other variables that have direct effects, such as infrastructure and the quality of the environment. In addition, it indicates the links between QOL indicators and shows possible indirect effects, represented by the dotted arrows.

These links and their effects on QOL represent important policy tools for decision makers. Standard cost-benefit analyses
Figure II.1: Direct and Indirect Determinants of QOL

take only the direct impact of policy into account. Understanding indirect links may lead to different policy interventions, as policymakers attempt to take advantage of multiplier effects through relatively small, but targeted, investments in such areas as education and health.\(^5\) These investments may produce

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\(^5\) In a model that links demographic and economic growth, Bloom et al. (1998) show that such multiplier effects can be an important mechanism in the growth process.
virtuous cycles of increasing QOL: better-educated populations are healthier, more productive, and wealthier and will go on to acquire more education and better health, creating an upward spiral of improvement. The reverse is also true. Failure to make these investments may lead to a vicious cycle of stagnation within a poverty trap, where poor education, poor health, and poverty mutually exacerbate one another.

The Institutional Context

Many analyses of QOL encourage investment in human capital, such as education, health, and training, in order to realize returns in people’s general standard of living. These human development policies are not likely to be sufficient, however, in the light of the importance of institutions. Institutions have a huge influence on the interaction between the factors that shape QOL, while also affecting the chance of successfully implementing new policies that aim to promote QOL. Figure II.1 illustrates a number of institutional influences that are especially important in determining QOL outcomes.

Many economists and political analysts have now written about the importance of institutions, demonstrating that the embedded pattern of a society’s rules and beliefs has a major influence on the structure of markets, families, governance, education, and other organizations (Douglas, 1986; North, 1991; Powell and DiMaggio, 1991; Steinmo et al., 1992; Putnam, 1993). Institutions evolve over time and not always in socially optimal or rational ways. Corruption may become endemic within a bureaucracy, with bribery the only rational course of action for each individual, even though the end result is invisible taxation and an inefficient public sector. Institutions are also characterized by inertia (Putnam, 1993; Clark and Roy, 1997) and find it very difficult to reform their structure, practices, and behavior. In a rapidly changing environment, many institutions that once functioned well are poorly suited, at least in the short to medium term, to new conditions.
An awareness of the character and influence of institutions is essential to successful policy implementation. In Thailand, for example, the institution of rural property rights is weak. Farmers tend to use cultivation methods that maximize short-term productivity, but that damage the environment and adversely affect their long-term economic interests. In this situation, otherwise well-designed environmental and agricultural policies are unlikely to be successful without concurrent efforts to achieve institutional change (Feeny, 1988).

India, meanwhile, has successfully implemented land reform in some states, thereby helping to ameliorate rural poverty (Besley and Burgess, 1998). But by not reforming practices of how land is titled, many women have been shut out of the process with consequent negative outcomes for their QOL. In addition, enforcement institutions have failed to prevent landowners from transferring titles to family members, nominally reducing the size of their landholdings and winning exemption from the reforms. As Bryant (1998) points out: “In practice, legal, political and social changes proved to be just as important to getting land reform accepted as policy and crucial to successful implementation.”

Institutions can also interact positively with policy. Countries with a strongly institutionalized culture of emphasis on education, for example nations with a Confucian tradition (Fukuyama, 1995a), are likely to achieve higher returns from a given investment in education. Likewise, the results of Viet Nam’s doi moi reforms, which encouraged farmers to engage in nonagricultural pursuits, appear to be strongly influenced by the institutionalized knowledge of the communities themselves: those villages that once specialized in certain types of production, such as making iron pots, are more likely to engage successfully in such activity again than villages that never possessed such skills.
Policy versus Implementation

Many policy analysts claim that a central failure of policymakers is a lack of understanding and attention paid to implementation issues (Grindle and Thomas, 1991; Haggard and Webb, 1994; Reimers and McGinn, 1997).

Implementation is affected by institutional constraints, but also by the implementers’ capacity to carry out the policy. The PRC, for example, has experienced rapid rural development since economic liberalization began in 1978. Reforms have promoted rural growth by encouraging both family-farm production and the development of rural enterprises. Inter- and intraregional disparities are growing, however, and as Lyons’ (1998) study of Fujian Province shows, the capacity of local leaders to carry out development schemes is one reason why some places emerge better-off than others.

Decentralization offers serious challenges to rural areas. Locally based decision making is seen as more democratic and more efficient. However, in rural areas, which often suffer skills shortages, effective implementation of decentralized programs may be impossible without local skills building and training. A well-intentioned policy, therefore, will have limited chance of success without appropriate action during the implementation phase.

RURAL QOL AND URBAN AND GLOBAL ECONOMIES

Around the world rural life is changing fast, as rural economies restructure and people gain access to goods and services once only available in cities. An understanding of rural QOL therefore relies on a clear understanding of the relation of rural areas to urban and global economies.

Figure II.2 shows typical flows between rural, urban, and global or regional centers. As primarily agricultural producers, rural areas have supplied food to urban, and sometimes to global, markets. In addition, they have been a
Figure II.2: Schematic Representation of a Dual Economy in a Globalized Setting

- Labor, Food
- Manufactured goods
- Services
- Remittances
- Direct foreign investment, Remittances, Manufactured goods

Urban Economy

Rural Economy

Regional/Global Economy

Trade

Labor

Remittances
source of labor—either pulled out by an expanding urban manufacturing sector, and in some cases by overseas employment opportunities, or pushed out by landlessness and declining agricultural wages.

Flows to rural areas have included manufactured goods as well as some services. In addition, remittances from migrants who leave their families behind for urban or overseas jobs have contributed to the resources of some rural communities.

Rural and Urban Labor Markets

The theoretical literature on the nature of the relationship between rural and urban labor markets in developing countries focuses on the differences between agricultural and urban economies. In the agricultural sector the production unit, for instance a household, is characterized by self-employment and small-scale enterprise employment. By contrast, the chief characteristic of the production unit in the industrial sector is that it is based on labor hired on a contractual basis. While the extent of mobility between the sectors, and the causes of income differences between the sectors, are subject to considerable debate, their economic differences are fundamental to the relative development of rural areas.

Lewis (1954, 1958) advanced the earliest of the popular two-sector models. According to his model, the main characteristic of the traditional sector’s labor market is the presence of surplus labor. In the extreme version of this model, the marginal product of labor (the increase in output associated with an incremental worker) in the traditional sector is zero. In other words, all members of the household who are able to work do so, with output shared among all household members. Each household (or production unit) reaches the maximum

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6 This section draws partly on material contained in Bloom and Freeman (1986).
level of output possible from its nonlabor resources, given its production technology. Adding more labor does not increase output, rather each member either works fewer hours (Sen, 1968) or expends less effort during the same number of hours (Liebenstein, 1978). A less extreme version of the model views the marginal product as being less than the average product, which is the wage received by the household’s workers. The qualitative implications of the Lewis model are similar in both cases.

The industrial sector in the Lewis model closely resembles a neoclassical labor market. Employers have downward-sloping labor–demand curves, and they hire labor until the marginal product of labor equals the market wage. This wage will be determined by the nature of alternative job opportunities available to industrial-sector workers. Thus, in a closed and frictionless economy, the market wage in the industrial sector will equal the average product in the agricultural sector. However, because of the transaction costs associated with migration to the industrial sector, most models of developing-economy labor markets view urban-sector wages as being greater than the average product of labor in the agricultural sector. This feature of the theoretical models is consistent with empirical evidence that demonstrates the existence of a positive wage differential between the industrial and agricultural sectors in most developing countries, as well as uniformly higher output per worker in industry and services than in agriculture.

**Rural–urban Migration**

The dual nature of urban and rural labor markets forms the basis for migration from rural to urban areas. Yap (1977) found that in low-income countries, migration from rural areas accounted for 30 to 60 percent of urban population growth rates. An especially striking case of rural–urban flow is the case of the PRC’s so-called floating population, the estimated 80 to 130 million people who have flocked to the cities. In large part, this situation is due to massive amounts of surplus
labor in the rural areas combined with the institutional changes brought about by the Deng Xiaoping reforms of 1978. As Roberts (1997) notes, the latter includes the household responsibility system, where the rural household unit is paid for what it produces, giving it an incentive to cut down on the use of farm labor so that family members can earn extra income from outside the farm. This pushing out of agricultural production is inducing much of the urban migration.

Large labor flows often continue despite high unemployment in urban areas. Harris and Todaro (1970) explained these flows in the face of employment risk by pointing out that the urban–rural wage differential must be large enough for the expected value of the urban wage to be at least as high as the average rural product, which can be enjoyed with certainty. This implies that the urban wage is high enough, even with a relatively low probability of finding employment, for individuals to believe they will be better-off than with the certainty of a low-paying rural job.

Other factors also influence decisions to migrate. For example, investigators have repeatedly shown that education is positively linked to rural–urban migration (Greenwood, 1975; Schwartz, 1976; Schultz, 1982; Stark and Bloom, 1985). There are often fewer opportunities for the better educated in rural areas, and the possibilities are likely to be better in the urban labor market. Social ties and networks may also be linked to migration. In Thailand, for example, those with stronger social networks are more likely to migrate because these networks cut down both the costs of migration and job searching once in the new destination (De Jong et al., 1996).

Rural areas supply large amounts of labor to the industrial sector, but this labor remits a large portion of the wages earned back to rural areas. Rempel and Lobdell (1978) found that urban migrants in South Asia returned 10 to 25 percent of their incomes to family members in their home villages. This can represent a significant source of income for rural inhabitants. However, whether remittances go to fund rural development depends on the nature of migration. When whole families or those with few or weak family ties migrate, the effect on development is
much less than when individuals who are responsible for family members depart in search of employment. This may have a gender dimension: Fuller et al. (1990) found that in Thailand, female migrants were more likely than male migrants to send remittances home.

An added dimension of rural–urban migration is that families can spread risk across markets and locations when only certain family members migrate to cities while others remain in agriculture. As pointed out earlier, high unemployment in the urban labor market implies risk for the urban migrant. By contrast, risk in the agricultural sector generally depends on natural factors such as rainfall, and this risk is largely uncorrelated with urban unemployment. Diversifying risk across these markets allows for a smoothing of consumption for both migrants and their family members in rural areas.

Migration plays a number of roles in the development of the rural sector, and potentially influences QOL. By absorbing excess population and agricultural labor, urban migration acts as a safety valve for rural areas. In addition, the possibility of remittances from migrants means that living standards may be raised in rural areas through urban–rural cash flows.

Global Links

Another potential urban–rural link that affects rural QOL involves flows of investment and capital from cities to rural areas. By the 15th century, for example, more than half of England’s woolen cloth was being made in rural households as town-based merchants outsourced manufacturing functions (Landes, 1998).

A similar process is under way in the PRC, following the Deng Xiaoping reforms. Rural growth has been rapid and rural industrialization has become the most dynamic sector of the economy. Rural areas near coastal cities have seen the most dramatic increases in household income, mainly due to the growth of township/village enterprises. These enterprises
rely on cities to provide a market for their goods, but also for technical expertise from urban residents, who may even commute to a rural enterprise (Peng, 1999).

More remote rural areas do not receive this kind of investment, nor do they have access to higher-order services such as hospitals or secondary schools, which tend to be concentrated in areas with high population density. Where services do exist in rural areas, their quality is generally below that found in towns and cities. Unless governments implement creative policies such as distance education or electronic commerce that target remote areas (see, for example, Coeur de Roy, 1997), the gap between QOL in remote rural areas and the rest of society will widen.

THE ASIAN FINANCIAL AND ECONOMIC CRISIS: A CASE STUDY

The rural sector is less closely connected to the global and regional economy than is the urban sector. In Asia, this partly accounts for the faster growth of the urban economy during the 1980s through the mid-1990s. But correspondingly, rural areas have been somewhat insulated from the dual financial and economic crisis that struck parts of Asia in 1997.

The causes of the crisis have been traced in large part to the rapid integration of Asian economies into the global financial market. Rural economies are considerably less monetized, and less integrated with global financial markets. This has protected rural areas from banking and financial sector failures to some extent. However, links between rural and urban Asia have increased, as have direct links between rural and international markets in terms of both labor and production. As a result, rural Asia has felt some effects. This case study examines how the links between global, urban, and rural markets have mediated the impact on rural QOL.
The Extent and Impact of the Crisis

Many countries of East and Southeast Asia experienced phenomenal growth rates in the early 1990s, with Indonesia, Malaysia, Philippines, and Thailand achieving average annual growth rates of 6.8 percent between 1990 and 1997. So the financial crisis that hit Thailand in June 1997 and spread rapidly to other countries in the region came as an enormous shock. While almost all of these countries are now showing early signs of recovery, this recovery appears to be, for the most part, cyclical, and is still somewhat fragile and uneven. Republic of Korea and Thailand, for example, seem to be recovering more strongly than Indonesia, which has suffered much political uncertainty. Economic recovery does not immediately mitigate the social consequences: for children who missed normal schooling, or people whose illnesses were untreated, the scars from the crisis will be slow to fade.

The social impact of the crisis on the populations of East and Southeast Asia has been severe. The collapse in stock and asset prices has substantially diminished many people’s savings. More importantly, the sharp rise in unemployment, accompanied by high inflation, has pushed large numbers of people into poverty.

In the decades prior to the crisis, the region had made impressive gains in poverty reduction, with a decline in the percentage of people living in poverty from 57.7 percent in 1975 to 37.3 percent in 1985, and 21.2 percent by 1995 (World Bank, 1998a). However, these gains have been threatened. Unemployment rates at the end of 1998 showed dramatic increases in most of the crisis countries, where unemployment was exceedingly low before the crisis. Simultaneously, currency devaluations have led to high inflation rates, with general price increases as high as 44 percent in Indonesia, and reaching

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7 Poverty data are based on the international poverty line of US$1 per person per day at 1985 prices.
about 11 percent in the Republic of Korea and Thailand. This has further reduced real wages in both the formal and informal sectors. According to International Monetary Fund estimates, in 1998 the combined effects of increased unemployment and inflation will have pushed as much as 20 percent more of the population below the dollar-a-day poverty line in Indonesia, and 12 percent in the Republic of Korea and Thailand (IMF, 1998).

This situation has been exacerbated by reduced social expenditures by governments unable to sustain previous expenditure levels. Amongst other things, the crisis has affected central governments’ abilities to fund programs targeted at QOL improvements in rural areas. Indonesia, for example, put rural employment programs aside as the crisis hit (Bullard, Bello, and Malhotra, 1998).

The poor have borne a disproportionate impact from the crisis. Evidence from Indonesia shows that the lowest quintiles have been the most vulnerable to cost-of-living increases as a result of inflation (Levinsohn, Berry, and Friedman, 1999), and poverty has increased at almost 10 times the rate of decline in per capita consumption (World Bank, 2000). The social impact has been wide ranging. Evidence indicates that many parents have been taking their children out of schools, as they can no longer afford educational expenses or the opportunity costs of not having their children work. Recent evidence from Thailand indicated a sharp increase in the number of children between ages 13 and 17 looking for work. Not only are such actions costly in the short term, but they can also have long-term effects on economies as investment in human capital declines, limiting the future growth potential of these countries. To some extent, forward-looking policymakers are aware of the long-term threats and have responded by generating new policy priorities for social spending, such as Thailand’s emergency loan program aimed at helping families keep children in school.

Falling incomes and rising prices have also made health care less accessible to many people. The high import content of many pharmaceuticals has meant a disproportionate rise in the cost of drugs, putting them out of the reach of poorer segments
of the population. Declining health-care expenditures by
governments also reduce the affordability of health care and
threaten essential public health programs, such as child
immunization, with potential long-term consequences for the
health of the population.

The social costs of the crisis are falling disproportionately
on women. In rural areas, women generally eat after men do,
and often get less food. As access to food declines, the nutritional
well-being of women and girls declines disproportionately. As
parents have less money to send their children to school, girls
are the first to be taken out. In societies where men are viewed
as the primary breadwinners, women tend to be targeted first
when employers are forced to lay off workers. Reports from
social organizations indicate an increase in both prostitution
and domestic violence.

Many other indicators also reflect the increased economic
hardships. Indonesia’s political destabilization was directly
linked to the collapse of the economy. Similarly, the Philippines
and Thailand reported increased crime rates and substance
abuse. Applications for divorce have been on the increase and
the extent of child abandonment also increased. While many
of these outcomes are not easily quantifiable, making their
overall importance difficult to assess, the costs they place on a
society certainly appear to loom large in the public psyche.

The Impact of the Crisis in Rural Areas

The effects of the crisis in rural areas have differed
significantly from those in urban areas. Production links from
rural areas to the outside proved, for the most part, to be highly
beneficial. Rural Asia produces food for urban areas as well
as for export to international markets. The rise in the general
price level translated into a significant increase in food prices.
For rural households that are net producers of food, this
resulted in an increase in earnings. Furthermore, for goods
exported to the world market, the currency devaluations meant
an increase in demand, which often translated into higher
incomes for farmers. This increase was offset to some degree by increased prices for such inputs as fertilizers and insecticides, which are often imported. For many farmers, though, the net change was positive. In Indonesia, for example, spice growers, tropical oil producers, and shrimp farmers realized much higher profits than usual, and estimates indicate that spending by middle-class rural households actually increased by 10 percent between August 1997 and August 1998 (McBeth, 1998).

It should be noted, though, that these benefits were restricted to net producers of food products. For the landless, who generally represent the poorest segment of rural populations, incomes are determined primarily by real wages. Real wages declined significantly in rural areas, primarily as a result of labor market links with the urban sector. The high rates of unemployment in the urban sector stemmed the flow of rural to urban migration and in fact led to high rates of return migration. Thai labor studies document massive migration back to rural areas following the onset of the crisis. Focus-group discussions in Thailand supported this finding, as villagers discussed the return of their migrant children who could no longer support themselves in the cities. Not only did this reduce the flow of remittances to the rural economy, but also the resulting increase in the rural labor supply brought down real wages and increased both unemployment and underemployment in rural areas. In Indonesia, where this problem was the most severe, the real consumption wage in agriculture declined by 35 percent in 1998 (World Bank, 2000).

A mechanism that served to protect rural incomes from the shock to some extent was the differential composition of the typical market basket consumed in rural as compared to urban areas. Insofar as rural baskets include a relatively small share of goods and services that are tradable (or have tradable components), rural consumption tends to be less sensitive to inflation arising from exchange rate shocks. Levinsohn, Berry, and Friedman (1999) show that in Indonesia rural households in every province faced smaller increases in their cost of living index than did their urban counterparts. But in rural areas, as
in urban areas, it was the lowest quintile of the population that suffered the greatest increase in cost of living.

Rural communities have some inbuilt mechanisms for dealing with shocks, which are not available in urban areas. Social ties tend to be stronger in rural communities, providing, to some extent, for smoothing of risk within family networks. For instance, family-based agricultural employment facilitates the absorption of excess labor. While the result may be underemployment, workers generally earn their average product rather than their marginal product, as would be the case in a competitive labor market. This generally ensures that they earn at least a subsistence wage. These distribution mechanisms give rural inhabitants a better ability than their urban counterparts to deal with shocks.

To the extent that rural–urban migrants maintain social and family ties with their villages, they are able to diversify risk over urban and rural employment and income shocks. While return migration was the primary cause of a decline in real wages in the agricultural sector, it was also a valve that enabled the release of some of the pressure on the urban sector. While real wages fell drastically in Indonesia, it was found that total employment in fact increased by 2.6 percent in 1998, primarily as a result of a 13 percent increase in agricultural employment. In the Republic of Korea, which was the most urbanized of all the countries affected, this option was limited. As a result, the overall increase in unemployment was the greatest in that country, reaching almost 6 percent in 1998.

As discussed earlier, a major advantage of such labor market links is that employment risks across urban and rural markets are generally uncorrelated. By an unfortunate coincidence, a severe drought in Indonesia, the Philippines, and Thailand brought on by El Niño occurred at the same time, and has exacerbated the effects of the crisis. In the Philippines, for example, the major share of the increase in unemployment between April 1997 and April 1998 has been attributed to the fall in agricultural production caused by El Niño (Atinc and Walton, 1998). Focus-group participants in Thai villages also emphasized the effects of the drought.
Even so, evidence from Indonesia shows that increases in poverty will be somewhat larger in urban than rural areas. Thai focus-group participants emphasized the importance of this security, even when incomes are lower than are available in urban areas. Agricultural workers talked about how the land would always provide for their basic needs. While they appreciated the benefits urban areas offered in terms of earning opportunities, there was a strong sense of the security agriculture provides, at least in terms of subsistence.

**Institutions and the Crisis**

Other effects of the crisis in rural areas highlight the importance of institutions and their role in shaping QOL. In many instances, the crisis has rocked institutions, especially those of the State, and the resulting changes have implications for the quality of rural life.

In Thailand, demands by rural districts to have more say in how they cope with the crisis have led to a process of decentralization, which has the potential to bring about long-term change and, advocates hope, greater local participation in rural areas (Vatikiotis, 1998). In Indonesia, the International Monetary Fund insisted that the government should lift long-established subsidies on imported commodities such as fuel and kerosene. The Suharto regime was loath to do so because its power depended partly on its ability to buy the political support of important sectors through the use of such subsidies. Rural households in particular depended on these subsidies: 60 percent of their lighting and energy comes from kerosene (Rosenberger, 1997). While the discontinuation of subsidies does eliminate distortions, it implies an immediate decline in QOL for most rural inhabitants.

In summary, the case of the Asian financial and economic crisis demonstrates that the increased strength of the links between the rural sector and urban and rural markets has enhanced the vulnerability of this sector to global shocks. However, the impacts in rural areas were significantly different
from those in urban areas. While the general increase in price levels raised the cost of living in rural as well as in urban areas, the increase in food prices had a positive impact on the incomes of those who were net producers of food. The currency devaluations that led to this inflation also lowered international prices, thereby increasing demand for agricultural products. Large-scale reverse migration resulted in real wages declining more sharply than in most urban areas. However, the ability of the agricultural sector to absorb excess labor prevented unemployment rates from rising to the extent that they did in the urban sector.

The relatively muted impact of Asia’s financial and economic crisis in rural areas, resulting from the position of rural areas in national and global markets, illustrates the importance of the rural sector to the national economy as a potential buffer against such global shocks. Basically, the rural–urban distinction offers a risk–return trade-off. Rural areas are slower to prosper when times are good, but are also slower to suffer at a time of global economic crisis.

CONCLUSION

The above QOL framework:

- conceptualizes QOL as a system of mutually interdependent factors;
- focuses on the important role that institutions play in mediating QOL outcomes;
- emphasizes the importance of capacity in ensuring adequate implementation; and
- explores the relationship between rural areas, and urban and global economies.

Policymakers need to pay close attention to the forces promoting QOL within rural societies, and to the opportunities presented by potential virtuous cycles. They must also be aware
of wider forces that have an impact on rural areas. Above all, they need a detailed understanding of the current state of rural QOL and its likely evolution. As a step to achieving this understanding, the following chapter presents an up-to-date look at important patterns and trends of life in rural Asia.
In 1970, 1.5 billion people lived in rural Asia, representing 45 percent of the total population of the world and 78 percent of the total population of Asia. Due to rapid urbanization from 1970 to 1995, the dominance of Asia’s rural people had declined by 1995 to 39 and 68 percent of the total population of the world and of Asia, respectively. Notwithstanding this decline in relative size, the population of rural Asia increased by nearly 600 million people between 1970 and 1995, more than the entire 1995 population of sub-Saharan Africa.

This population boom has imposed enormous pressure on living standards in rural Asia, as net additions to the population competed with existing members of the population for resources. In essence, rural Asia has been struggling to climb a descending escalator. Quantifying its net progress is a central goal of this chapter, while subsequent chapters will attempt to draw out patterns and trends in more detail.

In general, rural QOL is lower than urban QOL in Asian countries. QOL is also lower in countries that have larger rural populations. QOL appears to have become generally static in rural Asia between 1970 and 1995, with two main exceptions. Rural incomes have tended to decline relative to urban incomes, although increasing in absolute terms. The HDI, meanwhile, shows rural Asia making faster progress than urban Asia. In other words, according to the weighting used by this index, increased life expectancy and access to primary schooling have outweighed declining relative incomes in rural QOL.

This chapter explores the data and research design that provide the rationale for the specific analyses undertaken. The
quantitative findings are then presented, based on a wide variety of QOL indicators, and the picture is broadened with qualitative data obtained from focus groups.

DATA AND METHODOLOGY

The analysis addresses five practical issues:
• nature of the data examined;
• specific QOL indicators analyzed;
• yardsticks against which QOL in rural Asia is measured;
• manner in which the term ‘rural’ is made operational; and
• statistical tools used to analyze the data.

Nature of the Data

Quantitative indicators were selected using country-level data. Although no single database contained all the relevant data, aggregate data were generally available for a wide range of countries, both within and outside Asia; for different points in time as far back as the 1960s; and for a wide range of information, although not for every variable one might ideally wish to study. Most of the data examined have been assembled by the World Bank; the United Nations Educational, Scientific, and Cultural Organization; the World Health Organization; the United Nations Population Division; and the Human Development Report Office of UNDP.

The main weakness of the aggregate data is that few of the QOL indicators analyzed are measured separately for rural and urban populations. A simple econometric technique was developed that allowed inferences to be drawn about rural QOL from national-level data. Also examined were all available rural-specific indicators, which include estimates of rural poverty and measures of access to safe water, health services, and sanitation.
The task of analyzing microdata on QOL in rural Asia is left to other researchers. The World Bank’s Living Standards Measurement Surveys, Macro International’s Demographic and Health Surveys, and several ongoing, well respected, and publicly available household and labor-force surveys for individual countries, provide valuable opportunities to seek independent confirmation of results derived from aggregate data and to extend those results considerably.

Given the formidable size of rural Asia, there is a paucity of data available to measure directly the level and trend of its QOL. The need for efforts to collect better-quality data, comparable across countries and over time, is one of the strongest and least controversial recommendations to emerge from this study.

QOL Indicators

As discussed in Chapter II, QOL is not a technical term in any of the social sciences. It is a concept of human welfare with many influences that vary in importance over time and across different cultures. In our analysis, QOL is viewed broadly as having multiple sets of components, each of which has at least several indicators. These components are

- Nutrition
- Health
- Education
- Income
- Gender equality
- Fertility
- Political, civil, and economic freedom
- Environmental quality
- Access to infrastructure
- Access to information.

Several indexes of the general state of social and human development were also examined.
Table III.1 lists 47 different QOL indicators used in these components (Appendix 1 defines the indicators and provides the data sources). The Table divides these indicators according to whether they were observed once only or at several points in time, and according to whether they are specific to rural areas or available only at the national level.

Comparisons

Both historical and comparative yardsticks were adopted for assessing QOL in rural Asia. In particular, several QOL indicators were selected and four types of comparisons made:

- between rural Asia and urban Asia;
- between rural Asia and rural populations in other regions;
- between rural populations in different subregions of Asia; and
- within rural Asia at different points in time.

A key feature of the available data is that many variables were measured at only one, usually quite recent, point in time. For these QOL indicators only a ‘snapshot’ (or between-country) analysis was possible. By contrast, for those indicators that were measured at two or more points in time, QOL patterns at each point in time as well as temporal trends (a within-country analysis) could be determined. The years 1970, 1980, and 1995 were adopted as the main focal points for analysis, because considerable data are available for this broad span of years.

Defining ‘Rural’

A fundamental difficulty in examining rural QOL relates to the absence of a commonly accepted definition or measure of the term ‘rural’. It is a statistical concept defined by every
Table III.1: QOL Indicators by Rural Specificity and Periodicity

<table>
<thead>
<tr>
<th>Unit of Analysis</th>
<th>Single Point in Time</th>
<th>Several Points in Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>Access to health care (%)</td>
<td>Access to safe water (%)</td>
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<tr>
<td></td>
<td>Access to sanitation (%)</td>
<td>Population growth (%)</td>
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<tr>
<td></td>
<td>Percentage of people under the national poverty line</td>
<td>Population share (%)</td>
</tr>
<tr>
<td></td>
<td>Calories available per capita</td>
<td>GDP per capita in 1987 constant US$</td>
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<tr>
<td></td>
<td>Economic Freedom Index</td>
<td>GDP per capita in PPP$</td>
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<tr>
<td></td>
<td>GDP per worker in 1987 constant US$</td>
<td>Hospital beds (per 1,000 people)</td>
</tr>
<tr>
<td></td>
<td>Gender Empowerment Measure</td>
<td>Human Development Index</td>
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<tr>
<td></td>
<td>Human Poverty Index (%)</td>
<td>Infant mortality rate</td>
</tr>
<tr>
<td></td>
<td>Newspapers (per 1,000 people)</td>
<td>Irrigated cropland</td>
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<tr>
<td></td>
<td>Paved roads (%)</td>
<td>Labor force gap</td>
</tr>
<tr>
<td></td>
<td>Percentage of people under the national poverty line</td>
<td>Labor force in agriculture (%)</td>
</tr>
<tr>
<td></td>
<td>Population below $1/day (%)</td>
<td>Labor force, female (%)</td>
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<tr>
<td></td>
<td>Population below $2/day (%)</td>
<td>Life expectancy</td>
</tr>
<tr>
<td></td>
<td>Public expenditure on education (% of GNP)</td>
<td>Life expectancy gap</td>
</tr>
<tr>
<td></td>
<td>Public expenditure on health (% of GDP)</td>
<td>Literacy gap</td>
</tr>
<tr>
<td></td>
<td>Stunting</td>
<td>Maternal mortality rate</td>
</tr>
<tr>
<td></td>
<td>Wasting</td>
<td>Political Rights Index</td>
</tr>
<tr>
<td>National</td>
<td></td>
<td>GDP per capita in 1987 constant US$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GDP per capita in PPP$</td>
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<td></td>
<td></td>
<td>Hospital beds (per 1,000 people)</td>
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<td></td>
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<td>Human Development Index</td>
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<td></td>
<td></td>
<td>Infant mortality rate</td>
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<td></td>
<td></td>
<td>Irrigated cropland</td>
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<tr>
<td></td>
<td></td>
<td>Labor force gap</td>
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<td></td>
<td>Labor force in agriculture (%)</td>
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<td></td>
<td>Labor force, female (%)</td>
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<td></td>
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<td>Life expectancy</td>
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<td>Life expectancy gap</td>
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<td>Literacy gap</td>
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<td></td>
<td></td>
<td>Maternal mortality rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Political Rights Index</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Primary school enrollment ratio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Radios (per 1,000 people)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary school enrollment ratio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telephone mainlines (per 1,000 people)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TV sets (per 1,000 people)</td>
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</tbody>
</table>

GDP = gross domestic product; GNP = gross national product; PPP = purchasing power parity
country’s national government, commonly based on the population’s size and density, the predominant forms of economic activity, the nature of local infrastructure, and the form of local political organization. Information provided in global databases is derived from national sources, but the precise definition of ‘rural’ exhibits considerable variation across countries and some variation over time.

The range and ambiguity of definitions of the term are well illustrated by comparing the definitions of ‘urban’ (the complement of ‘rural’) in Bangladesh and the Philippines. In the Philippines, urban areas are defined to include

(a) entire cities and municipalities if their population densities are at least 1,000 people per km²;
(b) central districts of municipalities and cities if their population densities are at least 500 or more people per km²;
(c) communities, regardless of their population density, that have networks of streets, six or more commercial or recreational establishments, and at least three of the following:
   (i) a town hall, church, or chapel
   (ii) a public plaza, park, or cemetery
   (iii) a market where trading takes place at least once each week, and
   (iv) a public building such as a school, hospital, or library.

Communities with 1,000 or more inhabitants that satisfy conditions (i–iv) and in which the dominant economic activities are not farming and fishing are also defined as urban.

In Bangladesh, by contrast, urban areas must be developed areas that satisfy four conditions. They must

(a) have an identifiable central place;
(b) have infrastructure such as roads, communication facilities, and electricity and other utilities;
(c) be densely populated with a majority of the workforce engaged in nonagricultural activities; and
(d) be a well-developed community.

In both Bangladesh and the Philippines, rural areas are taken to be those areas that do not meet the requirements for being classified as urban.

National definitions of rural and urban can also vary over time. For example, the PRC decided to redefine ‘urban’ in 1986 in a manner that included a large enough number of agricultural communities to drive its rural population share down by roughly 25 percentage points. The definition was subsequently changed to be more consistent with, although not identical to, earlier definitions.

**Rural Measures**

As a result of the difficulty in defining ‘rural’, a number of different ways of measuring rural populations were used.

- Rural population share for each country, based on the World Bank’s *World Development Indicators 1998*. Figure III.1 shows rural population shares across Asia based on this measure.
- Relative population densities within countries, based on population densities within 1-degree squares derived from a geographic information system, divided by the average population density for each country as a whole. Figure III.2 shows this measure.
- The proportion of the total labor force working in agriculture within each country. Labor-force data

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8 The rural share of the total population is calculated as 1.0 minus the proportion of the population reported as living in urban areas, which are the data actually reported.
Figure III.1: Rural Population Shares, Asia
Figure III.2: Relative Population Density, Asia
are, in principle, closely comparable across countries and over time, because for most countries they are based on definitions established by the International Labour Organisation. However, the difficulties involved in measuring the size of the labor force, especially the female labor force, and its sectoral composition are well known. This measure also fails to capture nonagricultural employment in rural areas, which is sizable in some, and increasing in many, Asian countries.

- The proportion of the population living outside cities that have populations in excess of 750,000 people. These data have two disadvantages. First, the 750,000 cut-off—the lowest cut-off for which published data are readily available—includes many population centers that merit an urban classification. Second, data are readily available only for 1990.

The rural population share, and agriculture’s share of the total labor force, in every Asian country for which the requisite data are available are reported in Table III.2, which documents the dominance of the rural population in most Asian countries. The rural population exceeds 50 percent of total population for two thirds of the countries listed, including Asia’s five largest countries: Bangladesh, PRC, India, Indonesia, and Pakistan. The labor-force data show a similar pattern, although the sample is smaller. Asia and sub-Saharan Africa are the most rural regions in the world (Table III.3).

Tables III.2 and III.3 also report the percentage change in the rural population from 1980 to 1996, as well as the change in the rural share of the total population. The figures reveal that the absolute size of the rural population increased in most countries since 1980—by nearly 18 percent for the region as a whole—but that the relative size of the rural population declined from 75 to 67 percent for the region as a whole. Asia’s urbanization has reduced the growth rate of the rural population, but it has not reversed its direction.
Table III.2: The Relative Size and Growth of the Population of Rural Asia, by Country/Economy

<table>
<thead>
<tr>
<th></th>
<th>Rural Population</th>
<th>Agricultural Labor Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia</td>
<td>62.2</td>
<td>4.9</td>
</tr>
<tr>
<td>PRC</td>
<td>69.0</td>
<td>6.3</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>4.9</td>
<td>–28.4</td>
</tr>
<tr>
<td>Japan</td>
<td>21.7</td>
<td>–1.6</td>
</tr>
<tr>
<td>Korea, Dem. People’s Rep. of Korea</td>
<td>38.5</td>
<td>13.5</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>17.7</td>
<td>–50.9</td>
</tr>
<tr>
<td>Singapore</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Southeast Asia</td>
<td>66.3</td>
<td>19.3</td>
</tr>
<tr>
<td>Cambodia</td>
<td>79.0</td>
<td>42.6</td>
</tr>
<tr>
<td>Indonesia</td>
<td>63.6</td>
<td>8.7</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>78.7</td>
<td>34.1</td>
</tr>
<tr>
<td>Malaysia</td>
<td>45.7</td>
<td>17.6</td>
</tr>
<tr>
<td>Myanmar</td>
<td>73.8</td>
<td>31.8</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>83.7</td>
<td>37.2</td>
</tr>
<tr>
<td>Philippines</td>
<td>45.1</td>
<td>7.3</td>
</tr>
<tr>
<td>Thailand</td>
<td>79.7</td>
<td>23.3</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>80.5</td>
<td>39.9</td>
</tr>
<tr>
<td>South Asia</td>
<td>73.4</td>
<td>31.9</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>79.7</td>
<td>43.1</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>81.1</td>
<td>28.3</td>
</tr>
<tr>
<td>Bhutan</td>
<td>93.8</td>
<td>43.1</td>
</tr>
<tr>
<td>India</td>
<td>72.9</td>
<td>30.3</td>
</tr>
<tr>
<td>Maldives</td>
<td>72.8</td>
<td>51.6</td>
</tr>
<tr>
<td>Nepal</td>
<td>89.4</td>
<td>45.3</td>
</tr>
<tr>
<td>Pakistan</td>
<td>65.2</td>
<td>46.5</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>77.6</td>
<td>22.9</td>
</tr>
<tr>
<td>Central Asia</td>
<td>53.9</td>
<td>30.3</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>40.0</td>
<td>–4.0</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>60.9</td>
<td>24.4</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>67.7</td>
<td>53.9</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>55.0</td>
<td>67.0</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>58.6</td>
<td>44.2</td>
</tr>
</tbody>
</table>

Source: World Bank (1998d)
High levels of correlation were found between the alternative measures of rural population at different points in time (Table III.4). The correlations are reported separately for Asian and nonAsian countries, and tended to be somewhat higher within Asia than outside Asia, to be highest between the rural population share and the agricultural labor force, and to decline slightly over time. The generally high level of the correlations suggests a finding subsequently confirmed in empirical work—that the alternative measures have substantially the same information content. For this reason, most of the analyses reported below are based on the rural population share as the measure of ‘rural’.

Statistical Tools

Analyzing those QOL indicators that are rural-specific is relatively straightforward. However, most QOL indicators are available only at a national level. Using these data to make inferences about rural QOL or changes in rural QOL is possible, but it requires three key ingredients: first, analysis of national QOL indicators in a cross-country framework; second, imposition of a structure on the data; and third, analysis of national QOL indicators together with data on the rural share of the population.

Appendix 2 sets out the formal structure of the statistical model used to make inferences about rural QOL from national-level data. The starting point for the model is the observation that a national indicator is simply a weighted average of the corresponding rural and urban indicators, with the rural and urban population shares (which sum to unity) serving as the appropriate weights. A further assumption is that the underlying (and unobserved) rural and urban indicators each have two components: one that is common to rural and urban areas for all countries in the sample, and one that is purely country-specific. It is not assumed that rural and urban QOL are the same in every country under study, only that there is
Patterns and Trends in the Quality of Life in Rural Asia

Table III.3: The Relative Size and Growth of the Rural Population, by Region

<table>
<thead>
<tr>
<th>Region</th>
<th>Rural Population</th>
<th>Agricultural Labor Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>26.3</td>
<td>1.5</td>
</tr>
<tr>
<td>Middle East &amp; North Africa Sub-Saharan Africa</td>
<td>42.6</td>
<td>28.7</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>68.3</td>
<td>39.8</td>
</tr>
<tr>
<td>Europe</td>
<td>23.2</td>
<td>−8.3</td>
</tr>
<tr>
<td>Asia</td>
<td>67.1</td>
<td>17.7</td>
</tr>
</tbody>
</table>

Source: World Bank (1998d)

Table III.4: Cross-Country Correlations Between Alternative Measures of ‘Rural’ (Number of Countries)

<table>
<thead>
<tr>
<th>Correlation between</th>
<th>Asian Countries</th>
<th>NonAsian Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Share and Agricultural Labor Force</td>
<td>0.939 0.935</td>
<td>0.894 0.880 0.856</td>
</tr>
<tr>
<td></td>
<td>(28) (28)</td>
<td>(145) (145) (145)</td>
</tr>
<tr>
<td>Rural Share and Population not Living in Large Cities</td>
<td>0.891</td>
<td>0.830</td>
</tr>
<tr>
<td></td>
<td>(14)</td>
<td>(55)</td>
</tr>
<tr>
<td>Agricultural Labor Force and Population not Living in Large Cities</td>
<td>0.851</td>
<td>0.772</td>
</tr>
<tr>
<td></td>
<td>(14)</td>
<td>(55)</td>
</tr>
</tbody>
</table>

Rural Share: The share of the population not living in areas defined as urban in each country.
some part of rural QOL and some part of urban QOL—parts that can be estimated—that every country shares.9

Application and interpretation of this statistical model are illustrated in Figure III.3, which plots country values of the HDI against rural population shares for 1970 and 1995. Separate regression lines have been fitted to the data for 1970 and 1995. The regression lines slope down for both years, which indicates that the HDI is lower in more heavily rural countries, and that within countries the HDI tends to be lower among rural populations than among urban. The regression line for 1995 lies above that for 1970 and is also flatter. This indicates that human development improved worldwide between 1970 and 1995, with relatively more improvement occurring in the more rural countries. Alternatively, Figure III.3 can be interpreted as indicating that human development among urban populations was essentially stable from 1970 to 1995, while the human development gap between rural and urban populations narrowed. Indeed, estimates of the parameters

---

9 This statistical framework suggests using cross-country data to fit a simple linear regression of the value of the national QOL indicator on a constant and the rural population share. The fitted intercept will be an estimate of the common component to each country’s urban-specific indicator. The fitted slope will be an estimate of the difference between the common component of each country’s urban- and rural-specific indicators. Thus, testing the null hypothesis that the slope is zero is tantamount to a test that rural and urban QOL are, on average, equal among the countries in the sample. At a minimum, one could interpret the specified regression equation as describing QOL differences between countries that differ in rural population shares. The advantage of the simple model used is that it provides a rigorous basis for also interpreting the slope coefficients as describing average QOL differences between rural and urban areas within countries. The model can also be applied to data on QOL and rural population shares for multiple years. Specifying the model with a temporal trend (as done later) or a year dummy and a term for the interaction between rural share and the time trend (or the year dummy) permits an examination of changes in the intercept and slope over time. These changes can be interpreted as estimates of overall increases or decreases in the particular QOL indicator and as changes over time in the disparity between rural and urban QOL. The statistical model thus provides a simple and convenient tool for examining trends in QOL in rural Asia.
of the regression lines (reported at the bottom of Figure III.3) confirm that the human development gap between rural and urban populations shrank (statistically significantly) from 1970 to 1995.

**Direct Measures of QOL in Rural Areas**

The shares of rural populations in various Asian countries without access to health care, without access to safe water, without access to sanitation, and below the national poverty line are shown in Figures III.4 to III.7. The countries included are all those for which published estimates are available, and they are arranged in descending order of indicators. Although the figures include only a limited number of Asian countries, they all include Asia’s two most populous countries (the PRC and India) and encompass more than two thirds of Asia’s total population.
Notwithstanding some estimates whose accuracy is questionable (for example that 89 percent of Bangladesh’s rural population has access to safe water), the estimates are derived from nationally representative household surveys and are reported in global databases of various organizations, such as the United Nations Children’s Fund, UNDP, and the World Resources Institute. Not all estimates are for the same year: for access to sanitation and safe water they refer to the 1980s and 1990s; for access to health care they refer to the 1990s only. Along with estimates of rural poverty rates (Figure III.7), these are the only direct measures of rural QOL available at the country level. Similar data are available for urban areas in each of these countries. Not surprisingly, they indicate, almost without exception, that urban populations have higher levels of access to basic services and lower poverty rates.

In nearly all the countries for which recent estimates are available, most rural populations have access to health care (Figure III.4). By contrast, access to safe water and sanitation (Figures III.5 and III.6, respectively) is far less prevalent, with a majority of the rural populations in a sizable number of countries in East, Southeast, and South Asia lacking access to these basic services. In Afghanistan, for example, 95 percent of the rural population lack access to safe water, while an estimated 98 percent lack access to sanitation.

Rural poverty rates based on national poverty lines (as opposed to the internationally comparable dollar-a-day poverty line) for 13 Asian countries at different points in time dating back to the mid-1980s are shown in Figure III.7. These data reveal that rural poverty varies from being sizable in the PRC and Thailand (about one sixth of the population) to huge in the Philippines and Lao PDR (more than half the population).

Rough estimates of the absolute numbers of people in rural Asia and its major subregions who lack access to sanitation, safe water, and health services were made as follows: the data portrayed in Figures III.4–III.6 were regressed on the corresponding country data on income per capita and rural population share; the estimated regression coefficients were then applied to income per capita and rural share data
Figure III.4: Share of Rural Population without Access to Health Care, 1990–1995

Source: UNICEF (1997)

Figure III.5: Share of Rural Population Without Access to Safe Water, 1980–1995

Sources: WRI and IIED (1997)
Figure III.6: Share of Population Without Access to Sanitation, 1980–1995

Figure III.7: Rural Poverty Rates in Selected Years

*Based on National Poverty Lines
Source: World Bank (1998d)
for those Asian countries for which the corresponding service-access data were not available. For the relatively small number of countries for which data on income per capita were also not available, the access data for a neighboring country judged to be at a similar stage of development were used. Finally, either the imputations or the estimates (when available) were multiplied by the estimated rural population size for each country, in order to calculate estimates of the absolute number of rural dwellers in each country without access to each service. The resulting estimates were then summed across relevant country groups (Table III.5).

**Table III.5: Rural Asians Without Access to Basic Services (million)**

<table>
<thead>
<tr>
<th>Region</th>
<th>Number Without Access to</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sanitation</td>
<td>Safe Water</td>
<td>Health</td>
<td></td>
</tr>
<tr>
<td>East Asia</td>
<td>801.5</td>
<td>96.5</td>
<td>142.8</td>
<td></td>
</tr>
<tr>
<td>Southeast Asia</td>
<td>175.6</td>
<td>144.9</td>
<td>64.9</td>
<td></td>
</tr>
<tr>
<td>South Asia</td>
<td>779.3</td>
<td>231.9</td>
<td>252.9</td>
<td></td>
</tr>
<tr>
<td>Central Asia</td>
<td>0.5</td>
<td>0.4</td>
<td>12.5</td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td>1,756.9</td>
<td>473.7</td>
<td>473.1</td>
<td></td>
</tr>
</tbody>
</table>

**Sources:** Safe Water and Sanitation: World Resources Institute
Health: UNICEF

**Rural Problems**

The estimates in Table III.5 highlight the truly colossal magnitude of the QOL problems rural Asia faces. For example, they suggest that nearly 0.5 billion rural Asians—approximately equal to the entire population of Latin America—lack access to safe water and to health services, with the problem concentrated in South Asia. Even more daunting, the estimates suggest that nearly four times as many rural Asians (1.76 billion) lack access to sanitation, predominantly in the PRC and South Asia. Access to basic services is higher in Central
Asia, largely due to investment when states were still part of the Soviet Union.

Similar calculations cannot be performed using rural poverty data because those data are based on country-specific poverty lines. Nevertheless, on the basis of somewhat rougher calculations, it is estimated that approximately 750 million rural Asians live on less than US$1 per day, in other words, in absolute poverty.

QUANTITATIVE ANALYSIS OF QOL IN RURAL ASIA

The quantitative data on QOL in rural Asia are useful for both graphical and econometric analyses. As the first is more accessible but less powerful than the second, both are presented below.

Graphical Results

Figure III.8 presents cross-country scatter plots of the HDI versus the rural population share for 1970, 1980, and 1995 for Asian and nonAsian countries. The plots also show regression lines for the different years to describe the data and facilitate their interpretation. As noted earlier, the HDI was used because it is a reasonably broad and well established development indicator. Regression estimates reported and discussed later will be used to assess the statistical significance of the patterns and trends portrayed graphically here.

The HDI increased from 1970 to 1995 quite uniformly across countries with different rural population shares (Figure III.8a). Consistent with the econometric model underlying the regression lines plotted here, the data also indicate that rural QOL improved from 1970 to 1995 in Asian countries. By comparison, the data and corresponding regression lines for the nonAsian countries provide less evidence of improvement over time. Thus, the QOL in rural Asia seems to have improved
Figure III.8: Human Development Index versus Rural Population Share, 1970, 1980, and 1995. (a) Asia; (b) NonAsian Countries
in tandem with that in urban Asia, but more than the QOL in rural areas outside Asia.

As noted earlier, the HDI is a summary development index with three underlying components: income per capita, education, and longevity. Figures III.9–III.11 present cross-country scatter plots for income (as gross domestic product or GDP) per capita (in 1987 US$), life expectancy, and gross primary school enrollment rates, respectively. These data are all plotted against rural population share for the years 1970, 1980, and 1995, with separate plots for the Asian and nonAsian countries.

Figure III.9 indicates that GDP per capita declines with rural population share: GDP per capita tends to be lower in rural than urban areas. The plots also suggest that rural–urban disparities in GDP per capita are quite large. For example, for the Asian country sample in 1995, GDP per capita falls, on average, nearly US$1,500 for every 10 percentage points increase in rural population share. Undoubtedly, these figures overstate the true decline in real income as rural population share increases, because they do not reflect urban–rural differences in the price of a market basket of goods and services. Indeed, one area in which further research would be worthwhile is in estimating purchasing power parity adjustments between rural and urban areas in different countries.

Figure III.9 also shows that GDP per capita has improved over time among both Asian and nonAsian countries. For the nonAsian countries, the improvements are reasonably uniform across levels of rural population share. However, for the Asian countries, the improvements appear to be more modest in rural areas, that is, among the countries with relatively larger rural shares. This pattern is consistent with the well-established finding that regional and international trade contributed heavily to Asia’s economic growth. One would naturally expect increased trade to confer disproportionate benefits on urban areas because they are more closely connected to regional and international economies.
Figure III.9: GDP per capita in PPP$ versus Rural Population Share, 1970, 1980, and 1992. (a) Asia; (b) NonAsian Countries
The change in the structure of Asia’s income-rural share pattern (Figure III.9) is quite different from the change in its HDI-rural share pattern (Figure III.8) which, as noted earlier, shows evidence of larger improvements among the more rural populations. The difference between the changes in these two patterns suggests that the rural areas experienced relative improvements in either education, health, or both that outweighed their relative fall in income per capita, at least according to weightings used in the HDI.

Figure III.10a shows that the life expectancy of Asian populations improved from 1970 through 1995. The plots also reveal that the improvements were reasonably uniform across rural and urban areas, so that sizable rural–urban disparities in life expectancy persist. For example, there is an approximately 10-year difference in life expectancy, on average, between countries whose rural population shares are one third and two thirds, respectively. Among the nonAsian countries, life expectancy declines similarly with rural population share, with little evidence of life expectancy improvements over time. Thus, the health and longevity of Asia’s rural populations appear to have improved relative to those of rural populations outside Asia.

Figure III.11a shows that in the early 1990s, primary school gross enrollment varied little across Asian countries that differed widely in their rural population shares, and that gross primary enrollment rates averaged 90 to 100 percent. By contrast, in nonAsian countries primary enrollments declined fairly strongly as rural population share increased in 1970 and 1980, and continue to decline strongly. Thus, one of Asia’s most striking development achievements of the past three decades appears to be increased primary school enrollment and the virtual elimination of rural–urban differences in that enrollment. These changes in primary enrollment explain why the HDI exhibits some relative improvement among Asia’s rural populations, even in the face of the relative fall in rural incomes. Although not shown here, differences still exist with respect to secondary school enrollments, differences that are also diminishing over time. In addition, these figures do not account
Figure III.10: Life Expectancy at Birth versus Rural Population Share, 1970, 1980, and 1995. (a) Asia (b) NonAsian Countries
Figure III.11: Primary Gross Enrollment versus Rural Population Share, 1970, 1980, and 1992/95. (a) Asia; (b) NonAsian Countries
for rural–urban differences in the quality of primary education, which, based on most studies in this area, continue to be substantial. More on this aspect can be found in a companion volume (Siamwalla, 2000).

**Cross-country Regression Results**

Table III.6 contains estimates of the parameters of least-squares regressions fitted to cross-country data on a wide range of QOL indicators for the most recent years available. Thirty-six indicators were grouped into the 10 QOL components listed above plus several summary development indexes.

Following the earlier discussion and the technical description of the model provided in Appendix 2, regressions for each QOL indicator on rural population share were fitted to data for as many countries as possible. The specification included an indicator variable for nonAsian countries and an interaction term between the nonAsian indicator variable and rural population share. Including these variables allowed us to test whether the intercept and slope of the underlying regression of QOL on rural share differed between the Asian and nonAsian countries, that is, comparing average urban and rural QOL between Asian and nonAsian countries.

The results in Table III.6 provide a rich descriptive summary of the QOL in rural Asia and suggest three main findings.

First, nearly every QOL indicator declines as rural population share increases. The finding that rural QOL is worse than urban QOL applies to indicators ranging from absolute poverty and the prevalence of wasting and stunting, to road quality and access to telephones, televisions, and newspapers. For most of the regressions, the negative association between QOL and rural population share is statistically significant at the 5-percent level. This finding is robust with respect to alternative measures of rural population share, for instance, agricultural share of the labor force and proportion of the population living outside cities with 750,000 or more people.
Table III.6: Quality of Life in Rural Asia. Comparisons with Urban Asia and Rural NonAsia

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Constant</th>
<th>Rural Share</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INDEXES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Development Index</td>
<td>1.018**</td>
<td>–0.006**</td>
</tr>
<tr>
<td>Gender-related Development Index</td>
<td>0.967**</td>
<td>–0.006**</td>
</tr>
<tr>
<td>Gender Empowerment Index</td>
<td>0.451**</td>
<td>–0.002</td>
</tr>
<tr>
<td><strong>GENDER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female Share of Earnings (%)</td>
<td>35.074**</td>
<td>–0.019</td>
</tr>
<tr>
<td>Labor-Force Gap (Male–Female)</td>
<td>24.498**</td>
<td>–0.096</td>
</tr>
<tr>
<td>Literacy Gap (Male–Female)</td>
<td>2.371</td>
<td>0.169**</td>
</tr>
<tr>
<td>Enrollment Gap (Male–Female)</td>
<td>–11.221**</td>
<td>0.215**</td>
</tr>
<tr>
<td>Life Expectancy Gap (Male–Female)</td>
<td>–7.805**</td>
<td>0.064**</td>
</tr>
<tr>
<td><strong>INCOME</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log GDP per capita (PPP)</td>
<td>10.113**</td>
<td>–0.033**</td>
</tr>
<tr>
<td>Population below $1/day (%)</td>
<td>–24.467</td>
<td>0.654**</td>
</tr>
<tr>
<td>Population below $2/day (%)</td>
<td>–3.920</td>
<td>0.845**</td>
</tr>
<tr>
<td>Log Agricultural Value Added per Hectare (const. 1987 US$)</td>
<td>8.066**</td>
<td>–0.023*</td>
</tr>
<tr>
<td>Log Agricultural Value Added per Worker (const. 1987 US$)</td>
<td>9.415**</td>
<td>–0.045**</td>
</tr>
<tr>
<td>Log GDP per Worker (Market Prices, const. 1987 US$)</td>
<td>10.311**</td>
<td>–0.043**</td>
</tr>
<tr>
<td><strong>EDUCATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary Enrollment 1994 (% gross)</td>
<td>108.836**</td>
<td>–0.092</td>
</tr>
<tr>
<td>Secondary Enrollment 1993 (% gross)</td>
<td>132.999**</td>
<td>–1.192**</td>
</tr>
<tr>
<td>Literacy Rate (% people, 15+)</td>
<td>111.706**</td>
<td>–0.546**</td>
</tr>
<tr>
<td>Public Expenditure on Education (% GNP) 1990</td>
<td>5.624**</td>
<td>–0.022</td>
</tr>
</tbody>
</table>
Table III.6 (Cont.)

<table>
<thead>
<tr>
<th>NonAsia Dummy</th>
<th>NonAsia Dummy x Rural Share</th>
<th>R^2</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>-0.012</td>
<td>-0.001</td>
<td>0.58</td>
<td>167</td>
</tr>
<tr>
<td>0.013</td>
<td>-0.002</td>
<td>0.61</td>
<td>159</td>
</tr>
<tr>
<td>0.167*</td>
<td>-0.003</td>
<td>0.30</td>
<td>99</td>
</tr>
<tr>
<td>-1.183</td>
<td>-0.012</td>
<td>0.01</td>
<td>159</td>
</tr>
<tr>
<td>9.208</td>
<td>-0.151</td>
<td>0.10</td>
<td>160</td>
</tr>
<tr>
<td>0.695</td>
<td>0.052</td>
<td>0.22</td>
<td>102</td>
</tr>
<tr>
<td>4.318</td>
<td>-0.047</td>
<td>0.25</td>
<td>170</td>
</tr>
<tr>
<td>0.804</td>
<td>-0.018</td>
<td>0.23</td>
<td>168</td>
</tr>
<tr>
<td>-0.157</td>
<td>-0.004</td>
<td>0.60</td>
<td>167</td>
</tr>
<tr>
<td>9.150</td>
<td>0.182</td>
<td>0.44</td>
<td>54</td>
</tr>
<tr>
<td>3.246</td>
<td>0.176</td>
<td>0.50</td>
<td>54</td>
</tr>
<tr>
<td>-1.175</td>
<td>-0.006</td>
<td>0.19</td>
<td>116</td>
</tr>
<tr>
<td>0.878</td>
<td>-0.016*</td>
<td>0.64</td>
<td>111</td>
</tr>
<tr>
<td>0.185</td>
<td>-0.007</td>
<td>0.61</td>
<td>139</td>
</tr>
<tr>
<td>-1.502</td>
<td>-0.242</td>
<td>0.14</td>
<td>121</td>
</tr>
<tr>
<td>-23.447</td>
<td>0.089</td>
<td>0.50</td>
<td>119</td>
</tr>
<tr>
<td>-7.025</td>
<td>-0.045</td>
<td>0.36</td>
<td>170</td>
</tr>
<tr>
<td>-0.865</td>
<td>0.022</td>
<td>0.01</td>
<td>115</td>
</tr>
</tbody>
</table>

(continued next page)
Table III.6 (Cont.)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Constant</th>
<th>Rural Share</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEALTH</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Expectancy at Birth</td>
<td>80.136**</td>
<td>-0.238**</td>
</tr>
<tr>
<td>Infant Mortality Rate</td>
<td>-14.767</td>
<td>1.043**</td>
</tr>
<tr>
<td>(per 1,000 live births)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(per 100,000 live births)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Expenditure on Health</td>
<td>3.619**</td>
<td>-0.025*</td>
</tr>
<tr>
<td>(% GDP) 1994</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NUTRITION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calories Available per capita</td>
<td>128.870**</td>
<td>-0.303**</td>
</tr>
<tr>
<td>(as % of need) 1987–1989</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wasting 1980–1989</td>
<td>2.749</td>
<td>0.082*</td>
</tr>
<tr>
<td>(% children aged 12–23 mo)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stunting 1980–1989</td>
<td>8.737</td>
<td>0.506**</td>
</tr>
<tr>
<td>(% children aged 24–59 mo)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FERTILITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Fertility Rate</td>
<td>1.017*</td>
<td>0.038**</td>
</tr>
<tr>
<td>Contraceptive Prevalence Rate</td>
<td>75.295**</td>
<td>-0.388**</td>
</tr>
<tr>
<td><strong>POLITICAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Freedom Index</td>
<td>1.354**</td>
<td>0.029**</td>
</tr>
<tr>
<td>Political Rights</td>
<td>3.630**</td>
<td>0.020</td>
</tr>
<tr>
<td>Civil Liberties</td>
<td>3.507**</td>
<td>0.025*</td>
</tr>
<tr>
<td><strong>ACCESS TO INFORMATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TV Sets (per 1,000 people)</td>
<td>464.315**</td>
<td>-5.024**</td>
</tr>
<tr>
<td>Daily Newspapers (per 1,000 people)</td>
<td>468.974**</td>
<td>-6.030**</td>
</tr>
<tr>
<td><strong>ENVIRONMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Deforestation (%)</td>
<td>-0.582</td>
<td>0.015</td>
</tr>
<tr>
<td><strong>INFRASTRUCTURE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of Cropland Irrigated</td>
<td>54.671**</td>
<td>-0.356*</td>
</tr>
<tr>
<td>Percentage of Roads Paved</td>
<td>93.185**</td>
<td>-0.720**</td>
</tr>
<tr>
<td>Telephones (per 1,000 people)</td>
<td>436.291**</td>
<td>-5.583**</td>
</tr>
</tbody>
</table>

Source: See Appendix 1. Data are for 1995 unless otherwise stated. **Significant at the 5% level  *Significant at the 10% level
Table III.6 (Cont.)

<table>
<thead>
<tr>
<th>NonAsia Dummy</th>
<th>NonAsia Dummy x Rural Share</th>
<th>R²</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.014</td>
<td>-0.089</td>
<td>0.50</td>
<td>168</td>
</tr>
<tr>
<td>8.156</td>
<td>0.072</td>
<td>0.45</td>
<td>170</td>
</tr>
<tr>
<td>15.626</td>
<td>1.688</td>
<td>0.44</td>
<td>101</td>
</tr>
<tr>
<td>2.247**</td>
<td>-0.025</td>
<td>0.29</td>
<td>123</td>
</tr>
<tr>
<td>10.446</td>
<td>-0.298**</td>
<td>0.42</td>
<td>103</td>
</tr>
<tr>
<td>-2.897</td>
<td>0.023</td>
<td>0.29</td>
<td>62</td>
</tr>
<tr>
<td>0.101</td>
<td>-0.128</td>
<td>0.45</td>
<td>63</td>
</tr>
<tr>
<td>0.027</td>
<td>0.013</td>
<td>0.041</td>
<td>170</td>
</tr>
<tr>
<td>3.198</td>
<td>-0.350**</td>
<td>0.43</td>
<td>125</td>
</tr>
<tr>
<td>1.112**</td>
<td>-0.014**</td>
<td>0.38</td>
<td>97</td>
</tr>
<tr>
<td>-1.212</td>
<td>0.002</td>
<td>0.10</td>
<td>169</td>
</tr>
<tr>
<td>-0.859</td>
<td>-0.004</td>
<td>0.14</td>
<td>169</td>
</tr>
<tr>
<td>23.538</td>
<td>-0.899</td>
<td>0.51</td>
<td>158</td>
</tr>
<tr>
<td>-181.815**</td>
<td>2.026**</td>
<td>0.46</td>
<td>147</td>
</tr>
<tr>
<td>0.101</td>
<td>-0.007</td>
<td>0.01</td>
<td>157</td>
</tr>
<tr>
<td>-25.770**</td>
<td>0.125</td>
<td>0.09</td>
<td>142</td>
</tr>
<tr>
<td>-12.979</td>
<td>-0.018</td>
<td>0.27</td>
<td>153</td>
</tr>
<tr>
<td>-49.025</td>
<td>0.594</td>
<td>0.41</td>
<td>169</td>
</tr>
</tbody>
</table>
Second, evidence of a significant difference in the QOL–rural population share relationship between Asian and nonAsian countries is present for only a few QOL indicators. For nearly all indicators, the tendency for QOL to decline with increasing rural population share is common to the Asian and nonAsian samples. None of the exceptions to this finding is particularly notable.

Third, rural women suffer a double QOL disadvantage in the areas of health and education. The first is due to their rural location, which is associated with lower rates of literacy, secondary school enrollment, health, nutrition, and longevity. The second disadvantage is due to the existence of relatively wider gender gaps in indicators of the QOL among rural populations in Asia and elsewhere. For example, Table III.6 indicates that the male–female gap in education widens significantly as rural population share increases. Women’s normal advantage in life expectancy is substantially lower among rural than among urban populations. The QOL disadvantage of rural women is presumably magnified further by the effects of poor health and education on other QOL indicators not measured here, such as security and access to credit.

Trends in QOL

For roughly half of the QOL indicators in Table III.6, data are available at several points in time, thereby permitting an examination of changes over time in their levels and the strength of their association with rural population share. As before, a regression of each QOL indicator was fitted on rural population share, but using pooled data for the years 1970, 1980, and 1995, and two additional terms were included: a temporal trend and an interaction term between it and rural population share. The coefficient on the temporal trend is an estimate of the pace of change in the QOL indicator. The coefficient on the interaction term allows determination of whether rural–urban disparities have narrowed or grown over
time with respect to each QOL indicator. The results are reported in Table III.7 for the sample of Asian countries, and in Table III.8 for differences between Asian and nonAsian countries.

The estimates in Tables III.7 and III.8 replicate the earlier findings of steep and statistically significant urban–rural gradients in a wide range of QOL indicators. However, the estimates provide less clear-cut evidence of time trends in the QOL indicators. For the Asian country sample, most of the estimated time trends suggest QOL improvements, but none is significant at the 5 percent level except for the estimated improvements in HDI, secondary school enrollment, and telephone mainlines per capita (although the number of telephone lines also exhibits a widening urban–rural disparity). Also deserving mention is the finding, examined graphically above, that Asia’s once sizable rural–urban difference in primary school enrollment rates has been eliminated for the region as a whole, although clearly not in every country. Note that the relative (but not absolute) decline in rural income per capita suggested graphically in Figure III.9 is not statistically significant.

To examine the extent to which the statistical insignificance of most of the estimated temporal trends in Table III.7 is due to relatively small sample sizes, the regressions were refitted using a much larger global sample. Although most of the estimated trends were still insignificant, the larger sample does provide evidence of an upward trend in overall secondary school enrollments. However, the estimates indicate that this improvement occurred disproportionately among Asia’s urban populations. The estimates also provide evidence of an improvement in life expectancy that is concentrated in rural Asia, and that appears to coincide with a significant fall in rates of rural infant mortality. Access to information, as measured by numbers of television sets and telephones per capita, also improved in Asia, but mainly among urban populations.

Tables III.7 and III.8 also show that Asia is worse-off than nonAsian countries in terms of political and civil liberties.
Table III.7: Trends in the Quality of Life in Rural Asia

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Constant</th>
<th>Rural Share</th>
<th>Trend</th>
<th>Trend X RS</th>
<th>R²</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Development Index</td>
<td>0.841**</td>
<td>−0.006**</td>
<td>0.006*</td>
<td>0.000</td>
<td>0.74</td>
<td>60</td>
</tr>
<tr>
<td>Primary Enrollment</td>
<td>134.408**</td>
<td>−0.804**</td>
<td>−1.319</td>
<td>0.030**</td>
<td>0.36</td>
<td>61</td>
</tr>
<tr>
<td>Secondary Enrollment</td>
<td>74.625**</td>
<td>−0.601**</td>
<td>2.007**</td>
<td>−0.018*</td>
<td>0.55</td>
<td>65</td>
</tr>
<tr>
<td>Literacy</td>
<td>87.568**</td>
<td>−0.423**</td>
<td>0.743</td>
<td>−0.001</td>
<td>0.40</td>
<td>50</td>
</tr>
<tr>
<td>Life Expectancy</td>
<td>72.916**</td>
<td>−0.261**</td>
<td>0.251</td>
<td>0.001</td>
<td>0.60</td>
<td>89</td>
</tr>
<tr>
<td>Infant Mortality Rate</td>
<td>−19.645</td>
<td>1.596**</td>
<td>0.394</td>
<td>−0.024*</td>
<td>0.54</td>
<td>89</td>
</tr>
<tr>
<td>Hospital Beds</td>
<td>8.232**</td>
<td>−0.061**</td>
<td>0.037</td>
<td>−0.001</td>
<td>0.18</td>
<td>71</td>
</tr>
<tr>
<td>Total Fertility Rate</td>
<td>2.506**</td>
<td>0.041**</td>
<td>−0.059*</td>
<td>0.000</td>
<td>0.59</td>
<td>84</td>
</tr>
<tr>
<td>Log GDP per capita (PPP)</td>
<td>8.640**</td>
<td>−0.020**</td>
<td>0.050**</td>
<td>−0.0004</td>
<td>0.72</td>
<td>47</td>
</tr>
<tr>
<td>Log Agricultural Value Added per Hectare</td>
<td>9.805**</td>
<td>−0.045**</td>
<td>−0.008</td>
<td>0.000</td>
<td>0.51</td>
<td>51</td>
</tr>
<tr>
<td>Log Agricultural Value Added per Worker</td>
<td>10.243**</td>
<td>−0.052**</td>
<td>−0.017</td>
<td>0.000</td>
<td>0.73</td>
<td>36</td>
</tr>
<tr>
<td>Log Private Consumption</td>
<td>8.370**</td>
<td>−0.036**</td>
<td>0.028</td>
<td>0.000</td>
<td>0.73</td>
<td>43</td>
</tr>
<tr>
<td>Log GDP per Worker</td>
<td>10.142**</td>
<td>−0.042**</td>
<td>0.009</td>
<td>0.000</td>
<td>0.71</td>
<td>60</td>
</tr>
<tr>
<td>Irrigated Cropland</td>
<td>51.690**</td>
<td>−0.427**</td>
<td>−0.420</td>
<td>0.012</td>
<td>0.14</td>
<td>72</td>
</tr>
<tr>
<td>Political Rights</td>
<td>4.784**</td>
<td>−0.005</td>
<td>−0.052</td>
<td>0.001</td>
<td>0.02</td>
<td>80</td>
</tr>
<tr>
<td>Civil Liberties</td>
<td>4.759**</td>
<td>−0.005</td>
<td>−0.055</td>
<td>0.001</td>
<td>0.05</td>
<td>80</td>
</tr>
<tr>
<td>TV Sets per 1,000 People</td>
<td>206.052**</td>
<td>−2.207*</td>
<td>8.304*</td>
<td>−0.083</td>
<td>0.32</td>
<td>69</td>
</tr>
<tr>
<td>Telephone Mainlines</td>
<td>119.832**</td>
<td>−1.361**</td>
<td>12.328**</td>
<td>−0.157**</td>
<td>0.67</td>
<td>74</td>
</tr>
</tbody>
</table>

GDP = gross domestic product; PPP = purchasing power parity; RS = rural share.
Source: See Appendix 1

* Significant at 10% level    **Significant at 5% level    ***Significant at 1% level
Table III.8: Trends in the Quality of Life. Comparison between Rural Asia and Rural NonAsia

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Constant</th>
<th>Rural Share</th>
<th>Trend</th>
<th>Trend x NonAsia</th>
<th>NonAsia x Trend</th>
<th>R²</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Development Index</td>
<td>0.891**</td>
<td>-0.007**</td>
<td>0.003</td>
<td>0.000**</td>
<td>0.146**</td>
<td>-0.003**</td>
<td>0.73</td>
</tr>
<tr>
<td>Primary Enrollment</td>
<td>133.402**</td>
<td>-0.789**</td>
<td>-1.220</td>
<td>0.028**</td>
<td>-3.144**</td>
<td>-0.055**</td>
<td>0.34</td>
</tr>
<tr>
<td>Secondary Enrollment</td>
<td>80.339**</td>
<td>-0.684**</td>
<td>1.433**</td>
<td>-0.009**</td>
<td>5.260**</td>
<td>-0.198*</td>
<td>0.60</td>
</tr>
<tr>
<td>Literacy</td>
<td>95.074**</td>
<td>-0.529**</td>
<td>0.255</td>
<td>0.006</td>
<td>0.958</td>
<td>-0.225*</td>
<td>0.111</td>
</tr>
<tr>
<td>Life Expectancy</td>
<td>73.772**</td>
<td>-0.275**</td>
<td>0.182*</td>
<td>0.002*</td>
<td>6.553**</td>
<td>-0.117**</td>
<td>-0.162**</td>
</tr>
<tr>
<td>Infant Mortality Rate</td>
<td>-20.469</td>
<td>1.609**</td>
<td>0.453</td>
<td>-0.252**</td>
<td>3.499</td>
<td>0.176</td>
<td>-0.159</td>
</tr>
<tr>
<td>Hospital Beds</td>
<td>8.958**</td>
<td>-0.072**</td>
<td>-0.034</td>
<td>0.000</td>
<td>2.042</td>
<td>-0.019</td>
<td>-0.062</td>
</tr>
<tr>
<td>Total Fertility Rate</td>
<td>2.463**</td>
<td>0.042**</td>
<td>-0.055*</td>
<td>0.000</td>
<td>-0.583</td>
<td>0.013*</td>
<td>0.026</td>
</tr>
<tr>
<td>Log GDP per capita (PPP)</td>
<td>8.637**</td>
<td>-0.020**</td>
<td>0.050*</td>
<td>-0.004**</td>
<td>1.117**</td>
<td>-0.014**</td>
<td>-0.034</td>
</tr>
<tr>
<td>Log Agricultural Value Added per Hectare</td>
<td>10.045**</td>
<td>-0.049**</td>
<td>-0.026</td>
<td>0.000</td>
<td>-3.645**</td>
<td>0.023**</td>
<td>0.029</td>
</tr>
<tr>
<td>Log Agricultural Value Added per Worker</td>
<td>9.814**</td>
<td>-0.045**</td>
<td>0.006</td>
<td>0.000</td>
<td>0.414</td>
<td>-0.003</td>
<td>-0.009</td>
</tr>
<tr>
<td>Log Private Consumption</td>
<td>8.346**</td>
<td>-0.036**</td>
<td>0.030*</td>
<td>0.000</td>
<td>1.043**</td>
<td>-0.007</td>
<td>-0.033**</td>
</tr>
<tr>
<td>Log GDP per Worker</td>
<td>10.129**</td>
<td>-0.041**</td>
<td>0.010</td>
<td>0.000</td>
<td>0.775**</td>
<td>-0.006</td>
<td>-0.026*</td>
</tr>
<tr>
<td>Irrigated Cropland</td>
<td>40.557**</td>
<td>-0.266</td>
<td>0.403</td>
<td>-0.001</td>
<td>-13.125</td>
<td>0.053</td>
<td>-0.371</td>
</tr>
<tr>
<td>Political Rights</td>
<td>3.589**</td>
<td>0.012</td>
<td>0.038</td>
<td>0.000</td>
<td>-1.706**</td>
<td>0.029**</td>
<td>-0.029</td>
</tr>
<tr>
<td>Civil Liberties</td>
<td>3.577**</td>
<td>0.012</td>
<td>0.035</td>
<td>0.000</td>
<td>-1.532**</td>
<td>0.023**</td>
<td>-0.022</td>
</tr>
<tr>
<td>TV Sets per 1,000 People</td>
<td>209.204**</td>
<td>-2.258**</td>
<td>8.088**</td>
<td>-0.079**</td>
<td>76.026**</td>
<td>-1.401**</td>
<td>-0.387</td>
</tr>
<tr>
<td>Telephone Mainlines</td>
<td>158.579**</td>
<td>-1.945**</td>
<td>9.692**</td>
<td>-0.116**</td>
<td>18.641**</td>
<td>-0.286</td>
<td>-0.896</td>
</tr>
</tbody>
</table>

Source: See Appendix 1 GDP = gross domestic product; PPP = purchasing power parity; RS = rural share

*Significant at 10% level  **Significant at 5% level  ***Significant at 1% level
However, there are no significant rural–urban differences in political and civil liberties among the sample of Asian countries, unlike outside Asia.

Finally, the estimates reveal longevity to be a key dimension in which the QOL in rural Asia improved relative to rural QOL outside Asia during 1970–1995. This improvement is due to two factors: first, the more rapid increase in life expectancy in Asia than elsewhere from 1970 to 1995; and second, the leveling of rural–urban differences in life expectancy in Asia relative to other regions of the world.

In general, the change in each national QOL indicator can be decomposed into three effects:

- a country effect, which represents the change in the urban level of the QOL indicator;
- a rural–urban disparity effect, which reflects changes in the magnitude of the rural–urban disparity in the QOL indicator; and
- an urbanization effect, which reflects the impact on the national QOL indicator of a change in the rural population share.

This framework was implemented by fitting a regression of the change in each QOL indicator between 1970 and 1995 on a constant, the rural population share in 1970, and the change in the rural population share between 1970 and 1995. This analysis differs from the analyses based on cross-country data pooled for different years in two main ways. First, by focusing on country-by-country changes in the QOL, this analysis controls for any country-specific influences on QOL indicators that are fixed over time, such as data definition and reporting conventions. Second, the countries included in this analysis are limited to those for which relevant data are available for both 1970 and 1995, ensuring that the results are not being driven by changes in the country composition of the samples.

Table III.9 reports estimates of the three effects for the HDI and its chief components for Asia and for the sample of
nonAsian countries. The country effect and the rural–urban disparity effect reflect, at least in principle, true changes in rural QOL. By contrast, the urbanization effect reflects changes in national QOL that are associated with population shifts out of rural areas.

The estimates in Table III.9 support conclusions that are substantially similar to those drawn earlier based on the single-year and multiyear regression analyses. In particular, rural Asia’s improvements in both HDI and life expectancy are mainly country effects; its improvement in primary school enrollment is mainly a rural–urban disparity effect; and its static absolute income and declining relative income positions reflect a strong positive country effect that is offset by a negative rural–urban disparity effect. By contrast, the estimates for the nonAsian countries show that rural–urban disparity effects are generally less important than country effects in promoting what are generally smaller improvements in QOL.

Table III.9: Decomposition of Changes in QOL Indicators for Asia

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Avg. Change in QOL Indicator</th>
<th>Country Effect</th>
<th>Rural–Urban Disparity Effect</th>
<th>Urbanization Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Development Index</td>
<td>0.23</td>
<td>0.58</td>
<td>0.18</td>
<td>0.20</td>
</tr>
<tr>
<td>Gross Primary Enrollment</td>
<td>8.00</td>
<td>-2.67</td>
<td>4.52</td>
<td>-0.64</td>
</tr>
<tr>
<td>Life Expectancy</td>
<td>10.41</td>
<td>0.60</td>
<td>0.33</td>
<td>0.07</td>
</tr>
<tr>
<td>Log GDP per capita</td>
<td>0.54</td>
<td>1.35</td>
<td>-0.51</td>
<td>0.14</td>
</tr>
<tr>
<td><strong>NonAsia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Development Index</td>
<td>0.17</td>
<td>0.58</td>
<td>0.10</td>
<td>0.30</td>
</tr>
<tr>
<td>Gross Primary Enrollment</td>
<td>15.42</td>
<td>-1.45</td>
<td>1.87</td>
<td>0.48</td>
</tr>
<tr>
<td>Life Expectancy</td>
<td>7.52</td>
<td>0.79</td>
<td>0.02</td>
<td>0.18</td>
</tr>
<tr>
<td>Log GDP per capita</td>
<td>2.37</td>
<td>1.31</td>
<td>-0.83</td>
<td>0.54</td>
</tr>
</tbody>
</table>

*Source: See Appendix 1*
QUALITATIVE DISCUSSIONS OF QOL IN RURAL ASIA

The preceding sections have used objective measures that enable QOL to be compared over time and space. However, as discussed in Chapter II, there are limits to the objective measurement of what is a subjective phenomenon. Our selection of components, the indicators chosen to measure these components, and the somewhat arbitrary way that indicators are combined in an index such as the HDI, all introduce the value judgments of researchers into the conceptualization of the good life that is being measured.

Qualitative Methodology

A qualitative exploration of QOL, particularly when combined with quantitative analysis, allows researchers to be responsive to what people believe is important to their QOL and how they weight different factors; and allows policymakers to understand what kind of policies are likely to receive support, and to understand how implementation can be facilitated. It also encourages adoption of the broad concept of QOL, which includes, but goes beyond, health, wealth, and education.

Focus groups are an important tool for enabling the detailed exploration of people’s own perceptions of their lives. They are highly localized in their focus, enabling broad-brush assumptions to be examined and questioned. They gather information and are thus inclusive, especially for illiterate populations that might be excluded from regular survey analysis. This is especially salient for certain groups of rural Asians, such as women and the poorly educated. Focus groups have their disadvantages: it is not easy to generalize results to whole populations (Stewart and Shamdasani, 1998), and they cannot yield data on exact frequencies of behaviors or attitudes. A small number of groups was conducted, such that the data collected cannot claim to be representative of countries, far
less the whole of rural Asia. The results are invaluable, however, for showing how rural inhabitants understand their QOL and the process of development, and enable an understanding of how the broad trends evidenced by the quantitative data manifest themselves in people’s lives.

Rural Asia Focus Groups

Groups were convened in rural PRC, India, and Thailand. These countries have large populations and represent different parts of the continent (East, South, and Southeast Asia, respectively). In addition, they present different characteristics in terms of political–economic trajectories: India is a democracy of long standing; Thailand was undergoing a fitful process of democratization in the 1990s; the PRC has substantially liberalized its economy without substantially moving toward political democracy.

Focus-group sessions in all three countries followed the same topic guide. Sessions began with an open discussion of whether participants felt they and their communities were better-or worse-off now than 10 or 20 years ago. This allowed us to see what aspects of QOL were most important to people, without their being prompted by specific issues. Sessions then explored a number of themes: the possibility of upward mobility within the village; education, including that of girls; health; paid labor; strength of civil society; political participation; the environment; and effects of the Asian financial and economic crisis.

Brief results are presented that most directly illustrate the quantitative analysis. Readers are referred to Appendix 3 for a more in-depth presentation of the focus-group discussions. First, evidence is given for the improvement in Asian village life over the past two decades; then the downside to the process of development is explored to see how this influences QOL.

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10 For a more complete description of the focus-group research see Appendix 3.
The Role of Infrastructure

Respondents in all countries saw some improvements in their lives. Infrastructure was seen as a crucial factor behind improvements: seen as most important in India and Thailand, and as highly significant in the PRC. Where they have been provided, roads, water, and electricity have made an enormous difference in the QOL of rural Asians, and where lacking these are noted as indispensable elements for future improvements.

Many participants credited better transportation, especially roads, with giving them more access to markets and to nonfarm employment outside the village, a finding that echoes the suggestion that roads have perhaps the most direct impact on poverty reduction of all types of hard infrastructure (World Bank, 1996). Roads provide increased income and opportunity, connect people to a wider array of goods and services, and generally make life more convenient. In those villages without schools, roads were credited with dramatically reducing the time it takes for children to reach school, making it easier for them to attend. Health care also becomes more accessible. Regardless of whether clinics existed in the villages, better care was associated with larger, often urban, communities, so shorter journey times to larger health-care facilities were seen as a great advantage.

Access to water also had many benefits. Water at home or close by is convenient. It yields health benefits and, according to one focus group in northern Thailand, reduces the need for child household labor, allowing more children to attend school. In many poor rural societies, women bear most of the burden of collecting water for household use and irrigation. Benefits to women’s QOL were noted in India, where nearby water supplies had greatly reduced their burden of water collection.

Electricity produces a number of QOL gains. The literature suggests that it allows for productivity gains by extending the number of hours people can work in the light; it makes work in the home more pleasant (possibilities of labor-saving appliances, ease of working by electric versus kerosene light); it allows children to study more; and it brings the
possibility of entertainment and information (Barnes, 1988; Foley, 1990). When combined with pumps, it provides water for irrigation and drinking. Focus-group discussion stressed a number of these points. According to participants, electricity has facilitated improvements in water supply for irrigation, allowing for an increase in the number of crops that can be harvested yearly, with an apparent improvement in income and standards of living. It has also given participants some access to a range of consumer goods, especially television and refrigerators.

The Importance of Education

Education was one of the first issues mentioned by many participants when asked about improvements in QOL, and quality of education is clearly seen as determining present and future QOL. The issue of education is among the most complex because it has multiple influences on QOL and puts into stark relief beliefs about village life and social mobility.

All groups believed that investing in education for their children is both necessary and a duty for parents, as the only way to ensure a better future for the next generation. Many parents already feel their QOL has improved because their children are receiving a better education. Education is seen as providing a route out of farming into other less physically grueling jobs. An escape from farming is also believed to be important, because of its declining economic viability and the difficulty in gaining access to sufficient land.

Increasing social mobility is strongly linked to education. The educated obtain jobs that are more prestigious and also bring notable economic benefits. In the PRC, for example, participants noted that the newer brick houses, as opposed to the mud constructions, belonged to people who were better educated. However, mobility usually means leaving the village. In every place visited, participants told the same story. It is impossible to attain such jobs without going to larger, urban centers. People aspire for their children to leave, even though
they would prefer that it was economically possible for them to stay.

In the PRC and Thailand, the connection between increased educational investment and declining fertility is made. If parents have fewer children, they can afford to educate them, and they also believe that more highly educated children will be better able to take care of them in later life. The strength of belief in education suggests that demand, at least for primary education, has driven the educational gains found in the quantitative analysis. Supply—more schools and more teachers—is also important, but policies to increase educational opportunities have been highly successful in a culture that sees increased value in educating children.

Focus-group moderators asked specifically about the importance of girls’ education. Responses seemed strongly influenced by the structure of opportunities faced by women, their family responsibilities, and social policy in the participants’ societies: economic and cultural factors help explain the gender gaps noted in the quantitative analysis. In Thailand and among lower-caste Hindu women, for example, education is promoted by economic and cultural imperatives, and attitudes to girls’ schooling are positive. In contrast, in a remote and traditional area of the PRC, where there are neither economic incentives nor cultural supports for girls’ schooling, respondents did not favor equal education.

Perhaps most interestingly, there is some evidence of shifting attitudes. In those rural areas of the PRC more closely linked to urban centers, villagers were beginning to question their beliefs about girls’ education. They saw both declining returns from boys’ education, as the traditional system of parental support starts to fray, and greater opportunities for women’s independence.

Political and Economic Participation

While the quantitative data analysis (Tables III.7 and III.8) showed no significant time trends in rural Asia or elsewhere
for the effects of political, civil, and economic freedom, focus-
group discussions revealed social capital and participation in
political and economic life as key elements in individuals’
perceptions about their QOL. Quantitative measures of freedom
may be revealing aspects that are different from those seen by
qualitative measures. In particular, there is evidence that local
conditions matter most to people’s QOL, something that
national quantitative data may miss.

In the PRC and Thailand, both political and economic
liberalization were emphatically linked to improvements in
QOL. Participants in Thailand mentioned increased local
democracy as something that had changed their lives and
communities for the better during the past 10 years. In all
groups, participants felt they could make their voices heard
to public officials and, in contrast to the predemocratic
transition period, were able to disagree openly and publicly
with village leaders. None of the participants mentioned any
changes at the national level as having made a difference in
the quality of their lives, however, suggesting that the famous
observation of the late Speaker of the US House of
Representatives, Tip O’Neill, that “all politics is local” applies
across cultures.

In addition, respondents saw a positive correlation
between education and social participation, echoing findings
in the development literature. Thai participants viewed
educated people as having the skills to make good logical
arguments and as being willing to express opinions and to
talk more at public meetings, behavior that respondents linked
to better quality of public life. In addition, increased education
was thought to keep leaders honest, as educated citizens
cannot be easily tricked or misled by politicians.

The PRC presents the clearest example of the profound
effect of major institutional change on QOL. Without exception,
participants saw Deng Xiaoping’s 1978 economic reforms as
the single most important factor in changing their lives for the
better. For the villagers interviewed, these reforms were a
watershed that improved their lives enormously, primarily in
an economic sense, but also by providing more money for
investment in their children’s education and by improving women’s lives, fostering more effective political participation, and improving social relations within the village.

The last point is worth noting in greater detail because it highlights the limits of certain types of quantitative analysis in practice. The shift to an increasingly cash-based economy appeared to have opposite effects on community relations in the PRC, compared with Thailand and India: favorable in the PRC, negative elsewhere. Although this finding could be the result of the small focus-group sample, it is argued that it is linked to the institutional context within which change occurred. Although institutional context can be modeled quantitatively in principle, in practice, given existing cross-national data, it is difficult to do so.

In the PRC, under the old collective agriculture system, neighbors closely monitored each other’s behavior for evidence of shirking responsibility, and people were always suspicious of not receiving their fair share of benefits. Community relations were poor as a result, something mentioned by all of the focus groups. In contrast, under the new system of household production, respondents said they were more willing to help neighbors and that interactions had definitely improved. In Thailand and India, the cash economy, while prized for the greater wealth it seemed to bring, was seen as weakening community ties, with villagers spending more time engaged in individual economic pursuits. According to participants, people were becoming more selfish and had less regard for the common weal.

QOL Deterioration

Increased individualism was not the only limit to QOL perceived by participants. Residents saw limits to how much their lives had improved, trade-offs inherent in the process of development, and areas of marked deterioration. For example, the shift away from subsistence, a goal of policymakers and development specialists, was certainly seen as a gain by focus-
group participants, but fears about dependence on cash and the ability to pay bills in case of an economic downturn were raised. Respondents in all countries saw limits to opportunities in rural areas, especially for the next generation. Whether they expressed a fondness and attachment to rural life, as many in Thailand and India did; or held deep reservations, as in the PRC, virtually all of those interviewed felt that upward mobility was possible only in the context of urban life.

In the PRC, the theme of rising regional inequality surfaced, echoing one of the common observations that analysts make about current Chinese economic growth (Rozelle et al., 1997; Yang and Zhou, 1999). In Ganzu, a northwestern province of the PRC that is part of the western poverty belt, participants felt that the gains they had experienced over the past two decades were dwarfed by the boom experienced in the dynamic coastal zones. They felt they were missing out on the economic expansion.

Participation also has its limits under certain circumstances. In Thailand, the same villagers who expressed joy in being able to run their local affairs were powerless to stop a noxious landfill near their homes. The decision was taken at county level and backed by powerful economic interests. In India, female representation in the local council was thwarted by men who refused to let their wives participate in anything but name only. In both cases, entrenched interests (economic and gender) prevailed and participants were powerless to make legal or cultural challenges. This highlights the importance of an implementation process at all levels of the system.

The importance of implementation was also brought home in discussions about past and future development.

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11 Mandated female representation of 30 percent on local councils, or panchayats, has been an extremely important force in empowering women in India and in bringing their concerns to the public agenda. We do not wish to suggest that it is failing in the majority of local councils. We merely use this example to highlight that issues of policy implementation are all important in determining whether the intended effect of policies comes to pass or not.
projects. Focus-group participants were extremely knowledgeable about development and could cite many examples of failed projects. Often failure was ascribed to the lack of ‘soft’ infrastructure such as credit, training, or information about markets and jobs.

Finally, a true deterioration in perceptions of QOL emerged in the Thai focus groups. The threat of HIV/AIDS has dramatically changed people’s perceptions of their well-being and that of their community. For participants in northern Thailand, where the effects of the disease had been most severe and communities devastated, QOL had declined markedly. This highlights the importance of security, as well as opportunity. A major health crisis, or natural catastrophe, can quickly make QOL gains seem fragile.

**Fine-grain Analysis**

The focus groups show that changes in QOL are often not distinct, but entail trade-offs that may not always be visible in quantitative data. Policymakers need to know how such trade-offs are perceived. In part, this is merely self-preservation: typically people vote on their perceptions of how their lives are being affected, rather than on broad macro trends. More fundamentally, if we are serious about giving people voice and representation, then people’s understanding of QOL and their priorities must be part of the policy dialogue. Do people believe pollution or declining community values are worth economic gains? How do they rate different funding priorities such as health, education, or infrastructure development? Which decisions do they think should be taken locally, and which are they happy to see dealt with at the national level? Only by exploring these attitudes can policymakers take seriously the ability of rural people to control their own lives.
CONCLUSION

This chapter has analyzed QOL in rural Asia through complementary quantitative and qualitative techniques. A number of key messages emerged:

- QOL is indisputably lower in rural than in urban Asia;
- with few exceptions, QOL in rural Asia did not decline between 1970 and 1995—an extraordinary achievement given that its population increased by nearly 40 percent in this period;
- during this period some QOL indicators actually improved, differentiating Asia from other developing regions where, conditional on rural population share, QOL saw almost no improvement;
- access to primary education was the most striking QOL improvement in rural Asia, with enrollment approaching universality in many countries—the improvement in this indicator was enough to offset a small decline in rural income per capita, resulting in an absolute and relative improvement of the HDI for rural Asia;
- infrastructure has an important role to play in improving QOL, and policymakers need to consider infrastructure as potentially playing a strong role in achieving positive QOL outcomes, not simply in terms of its effect on growth, but also due to its ability to promote QOL more broadly;
- strong gender inequalities persist in rural Asia and remain a scar on the overall QOL picture, with South Asia lagging particularly severely in this area.

Some caution should be used in reviewing the statistical analyses presented in this chapter. Most analyses relate to groups of countries and may not reflect the experience of specific countries. Country-level data can, at best, reveal broad patterns and trends. But they embody a level of ‘noise’ that
makes them ill-suited to uncovering problems that are not widespread, intense, and closely targeted by existing data. The quantitative analyses presented in this chapter provide a partial view of the most widespread and prominent, but not necessarily the most important or remediable, aspects of QOL in rural Asia. Analyses based on other forms of data and information are essential to complete the picture. Although this chapter offers a brief attempt at including the voices of rural Asia, the limited scope of the focus groups leaves a great deal still to be done in this area.

This chapter has highlighted some preliminary areas where rural Asia’s QOL continues to lag and where substantial room for improvement exists. This provides a starting point for policymakers seeking to tackle the challenge facing rural Asia in the new century. However, they need an understanding of the opportunities and constraints they face, as well as tools to handle them. The next two chapters attempt to provide these.
IV THE IMPORTANCE OF INSTITUTIONS

THE NATURE OF INSTITUTIONS

Social scientists of all types have focused on the role of institutions in structuring social and political life. This chapter explores the nature and meaning of institutions and how they change, and discusses their relevance for policymakers as they attempt to improve rural QOL.

Defining Institutions

Institutions are viewed here as formal organizations such as bureaucracies, as well as the formal and informal rules that govern behavior (Thelen and Steinmo, 1992). Institutions help create and shape interests, influence the goals of actors, and constrain the options open to individuals to achieve those goals (Hall, 1986; March and Olsen, 1989). From the point of view of policy, a study of institutions helps us understand why certain outcomes are more likely than others, and how desirable outcomes might be achieved. The work of Putnam (1993) on institutions has had particularly strong resonance among development specialists, showing how institutional configuration creates ‘path dependency’, with different paths having different implications for growth.

Institutions also organize the opportunities that are available to people and define their social roles (Lorber, 1994; Riley, 1997). Institutions are self-reproducing: the rules that they entail are enacted over and over again. As DiMaggio and Powell (1991) point out, actors do not question every action
they take: many decisions are made out of habits that have
developed over time. This often leads to the tacit assumption
that actions, roles or opportunities are ‘natural’ and therefore
not open to question. By taking an institutional perspective,
the analyst or activist may call these into question, introducing
the possibility of change.

Institutions are not immutable. Indeed, as Thelen and
Steinmo (1992) pointed out, the reason why changes to
institutions are often so fiercely contested is that they can be
modified. For many institutional theorists, the point is to
explain the process of change. Friedland and Alford (1991),
for example, suggested that change often occurs when different
institutions come into conflict with each other; changes in one
institution tend to lead to changes in others. These changes,
evertheless, usually occur at different speeds. Douglass North
(1991) noted that while changes to formal institutionalized
rules (such as a law) may happen very quickly, informal rules
(such as ingrained beliefs) are much slower to change.

This chapter is especially concerned with how institutions
can be actively shaped to produce and protect QOL through
the policy process, and how, in turn, institutions may be
modified through policies and their results. The previous
chapter made it clear that while a good deal of progress has
been made in improving QOL in rural Asia, there remains a
great deal to be done. A focus on the policy constraints and
options open to decision makers allows a realistic discussion
of how the goals of better QOL can be achieved. The concern
here is with understanding both how institutions constrain or
facilitate beneficial QOL outcomes, and how policies and their
results may lead to the creation of the sort of ‘virtuous’
institutions about which Putnam writes.

A number of specific institutions form the basis of the
discussion in this chapter. These are civil society, gender, and
legal institutions, specifically those governing human rights.
The formal and informal organizations and rules that define
these are particularly important in determining QOL in rural
Asia, and they receive more systematic treatment in this
chapter than elsewhere in the volume. Civil society and human
The Importance of Institutions 95

Rights are increasingly central to the experience of rural Asians as processes of democratization and empowerment are implemented. Gender inequities have been such a pervasive feature of rural life in Asia that understanding how gender structures QOL outcomes is essential in order to promote change.

These institutions are used as examples to highlight more general conclusions about the links between institutions and QOL, specifically the dynamics of change. In doing so, the overall QOL framework introduced in Chapter II is expanded. Chapter II argued that institutional arrangements can foster or hamper developments that benefit QOL. Here, it is shown that they do so both directly, and through the policy process. Change occurs as institutions influence the policy process and the outcomes of policies, which in turn can reshape the institutions.

Institutions, Policy, and Implementation

Institutions shape QOL through the policy process and, in turn, institutions may be modified through policies. Figure IV.1 shows the relationship between institutions, policy, and QOL outcomes. Relationships run in two directions. First is the influence of institutions on QOL outcomes, which can act through policy design or policy implementation. For instance, the design of a policy to create job opportunities for women may be influenced by notions of what work roles are appropriate for women. Equally, Jayaweera (1997) has shown, using data from numerous Asian countries, that the empowerment (a positive QOL result) women receive from increased education (a policy intervention) depends greatly on the institutional forces of economic structures and prevailing ideas about gender.

The second relationship shows how institutional reform can be driven by changes in QOL or by policy design. In India, for example, the institutionalized caste system has long meant discrimination for untouchables and members of other lower
castes. Recent policy changes, such as quotas for school admissions and seats in local and national political bodies, have led to violence by privileged groups but, despite the deeply contested nature of the policies, the institution of caste is gradually being eroded.

Even when policies do not have the intended outcomes, they may still cause eventual change in institutional structure. For example, a policy that provides schooling for girls may not, in the short run, mean that more girls are sent to school, but its very existence legitimizes the notion of female education. In so doing, the prevailing notions of gender begin to shift, which will bring long-term benefits. Those crafting policies must, therefore, keep in mind that institutional change may result from policy interventions and improvements in QOL. They must also keep in mind the potential effect on institutions. Doing so allows for the creation of virtuous cycles of policymaking that link QOL improvements with institutional change.
INSTITUTIONAL QUALITY AND QOL OUTCOMES

Political institutions are important in promoting QOL through the influence they have on creating the right conditions for economic growth. Quantitative evidence is presented that demonstrates the impact political institutions can have on QOL outcomes.

Quantitative Analysis

Different QOL measures were regressed on the quality of political institutions, controlling for rural share (where appropriate), and whether the country is in Asia. Quality of governmental institutions, a measure developed by Knack and Keefer (1995), is a 10-point scale based on business responses to questions about bureaucratic efficiency, the rule of law, contract enforcement, governmental corruption, whether the rule of law is in effect, and the risk of asset expropriation. A higher value on the scale corresponds to higher-quality institutions (for example, rule of law exists, or bribes are not important). The ability of poor countries to catch up with richer ones, as predicted by much economic theory, is thought to be a function of the quality of institutions (Keefer and Knack, 1997). They find that high institutional quality gives poor countries a ‘leg-up’ in the development process because it is associated with higher per capita income. Our analysis extends this line of work to consider not only how rural share is related to institutional quality, but also the effects of institutional quality on other measures of QOL.

The findings presented in Table IV.1 generally support the argument that high-quality state institutions lead to more positive QOL outcomes:

- the quality of institutions is positively related to per capita income, education, the level of poverty, and gender development, controlling for rural share, and
Table IV.1: The Effects of Institutional Quality on Quality of Life Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Constant</th>
<th>Institutional Quality</th>
<th>Rural Share</th>
<th>Rural Share x Institutional Quality</th>
<th>NonAsia Dummy</th>
<th>R²</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Development Index</td>
<td>0.865</td>
<td>0.009</td>
<td>-0.013***</td>
<td>0.001**</td>
<td>0.025</td>
<td>0.82</td>
<td>107</td>
</tr>
<tr>
<td>Gender Development Index</td>
<td>0.642</td>
<td>0.028**</td>
<td>-0.10***</td>
<td>0.001***</td>
<td>0.022</td>
<td>0.80</td>
<td>107</td>
</tr>
<tr>
<td>Infant Mortality</td>
<td>32.010</td>
<td>-2.891</td>
<td>2.161***</td>
<td>-0.217***</td>
<td>-7.788</td>
<td>0.77</td>
<td>108</td>
</tr>
<tr>
<td>Education</td>
<td>150.106</td>
<td>-6.001***</td>
<td>-1.908***</td>
<td>0.246***</td>
<td>1.482</td>
<td>0.39</td>
<td>91</td>
</tr>
<tr>
<td>Literacy Rate</td>
<td>110.881</td>
<td>-2.511</td>
<td>-1.505***</td>
<td>0.159***</td>
<td>1.125</td>
<td>0.51</td>
<td>79</td>
</tr>
<tr>
<td>Per Capita Income (Log)</td>
<td>7.925</td>
<td>0.237***</td>
<td>-0.034***</td>
<td>0.001</td>
<td>0.269*</td>
<td>0.82</td>
<td>90</td>
</tr>
<tr>
<td>Percent Rural Poverty</td>
<td>105.945</td>
<td>-10.272***</td>
<td></td>
<td></td>
<td>-5.053</td>
<td>0.32</td>
<td>28</td>
</tr>
<tr>
<td>Rural Safe Water Access</td>
<td>14.714</td>
<td>8.682***</td>
<td></td>
<td></td>
<td>-7.874</td>
<td>0.23</td>
<td>45</td>
</tr>
<tr>
<td>Percent Rural Poverty</td>
<td>124.913</td>
<td>-8.606*</td>
<td>-3.726</td>
<td>-5.641</td>
<td>0.31</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Rural Safe Water Access</td>
<td>-110.581</td>
<td>1.762</td>
<td>21.051***</td>
<td>-10.539</td>
<td>0.61</td>
<td>41</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 10% level  ** Significant at 5% level  *** Significant at 1% level

Source: See Appendix 1
rural share is significantly and negatively related to these outcomes;

- access to safe water in rural areas is positively linked to institutional quality, but if income level is controlled for, this relationship disappears; and
- the percentage of the rural poor declines with institutional effectiveness, even controlling for the country’s income.

These results suggest that high-quality institutions can make up for the disadvantage of being rural and to some extent (echoing the findings of Knack and Keefer), for being a poor country.

**Civil Society, Social Capital, and Trust**

The importance of institutional quality raises a crucial question: how can virtuous institutions be developed? It is believed that the strength of civil society is important in encouraging positive QOL outcomes, as well as encouraging the development of other virtuous institutions.

Civil society is an institution separate from the State and from institutions of a purely private nature, such as families or tribes (Berman, 1997; Schmitter, 1997; Hall, 1998). It is often conceptualized as a public sphere where individuals can organize into many different kinds of groups and associations that foster economic life and influence political decision making (Putnam, 1993; Hyden, 1997; Schmitter, 1997; Hall, 1998). The importance of the institution of civil society for encouraging positive QOL outcomes for rural Asia is considered in two ways; first, the argument that civil societies characterized by high degrees of social capital and trust are essential for building the economic institutions that underlie growth, and thus for promoting QOL; and second, the way in which democratic civil societies may lead to beneficial outcomes, by encouraging participation that influences changes in policies and institutions.
Many social scientists have argued that high-trust societies are more likely to develop economically than societies where such bonds are lacking (Inglehart, 1990; Putnam, 1993; Fukuyama, 1995a). Trust reduces transaction costs. It encourages businesses to develop beyond family origins (where bonds of kinship substitute for bonds of trust), and helps them to form relationships with suppliers, partners, and customers that rely on more than contractual obligation (Humphrey and Schmitz, 1998; Neace, 1999). As Hyden (1997) notes, “development benefits from the freedoms that civil society provides because people can take initiatives they would not otherwise do.” High levels of trust also become embedded in institutions, such as the rule of law and systems of regulation, which are essential to efficient markets (North, 1991; Lipset, 1994; Swank, 1996; Pei, 1997). High-trust societies have a greater chance of developing other virtuous institutions.

Participation, although a hallmark of civil society, does not in the abstract produce the virtuous institutions that lead to growth. Again, trust is key. Participation can result in a war of all against all, with many mobilized groups trying to pursue their separate interests at the expense of other groups (Swank, 1996; Berman, 1997). Rather, civil societies are characterized by institutionalized patterns of participation that entail attitudes of trust among autonomous groups, voluntary cooperation, civility, tolerance, and an ability to channel grievances.

Empirical evidence points to the link between trust and development. La Porta and colleagues (1996) have used data from the World Values Study to show that levels of trust tend to be higher in wealthier countries, and that trust is correlated with institutional performance, controlling for income levels. The present work examines data on trust from the World Values Study in several Asian countries. Table IV.2 shows the extent to which people believe others to be trustworthy, and how
Table IV.2: Trust and Size of Respondent’s City or Town in Selected Asian Countries. Percentage agreeing that ‘most people can be trusted’

<table>
<thead>
<tr>
<th>Country</th>
<th>Size of City or Town</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small*</td>
</tr>
<tr>
<td>China, People’s Rep. of</td>
<td>55</td>
</tr>
<tr>
<td>India</td>
<td>47</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>25</td>
</tr>
<tr>
<td>Pakistan</td>
<td>26</td>
</tr>
</tbody>
</table>

*The question wording is: Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?

**In the PRC, size categories correspond to: <5,000; between 5,000 and 500,000; and over 500,000.
In India and Bangladesh, they correspond to: <5000; between 5,000 and 100,000; and over 100,000.


responses differ according to size of residence. In the countries of South Asia, the smallest towns appear to be places where people are more likely to trust others, while in the PRC the differences are insignificant across the size of residence. To the extent that the small and large designations correspond to rural and urban areas, this finding is suggestive. Policymakers or organizations such as NGOs that wish to promote QOL may find it useful to try to tap into and use reserves of trust in rural areas in designing or finding homes for their programs.

Because the most recent round (1995–1997) of the World Values Study does not characterize residence as rural or urban except in the case of Pakistan, we look at size of town. While this is a highly imperfect proxy for the rural–urban distinction, size of town and percentage of respondents working in agriculture are highly correlated. In India, 44 percent of those in the smallest towns (<5,000) work in agriculture, compared with 11 percent of those in towns and cities of over 100,000 inhabitants. In Bangladesh, the comparable figures are 32 percent and 1 percent. In the PRC, 80 percent of those in the smallest villages (<5,000) work in agriculture compared with 1 percent in towns of over 500,000. While for all the countries, the middle category of towns is a hybrid and is likely very heterogeneous, we believe that the smallest and largest categories provide a rough approximation of rural and urban life, respectively.
High levels of trust, for example, may mean that a community is a good candidate for microcredit or small business programs.

**Civil Society and Asia**

Although historically authoritarian states have blocked the development of an independent sphere of civil society in many Asian nations, this appears to be changing (Cotton, 1997; Schmitter, 1997; Kubicek, 1998). Economic growth has opened a nonstate space for participation, and as Asian democracy becomes stronger a space may emerge in which stronger forms of civil society can flourish. Additionally, the emergence of a ‘transnational’ civil society, formed of new actors such as NGOs and international social movements, means that citizens have new possibilities for organizing themselves (Rodan, 1997; Schmitter, 1997).

Many analysts argue that civil society in Asia is stronger in urban than in rural areas. For example, in a number of countries that have witnessed political liberalization, the emerging actors tend to be urban-based, such as university students and the urban middle class in the Republic of Korea. In Thailand, parties to represent interests and to focus on issues seem limited to the city, where better-educated voters are also better organized. In the countryside, in contrast, vote-buying and very weakly institutionalized parties are the norm (Cotton, 1997).

The urban-bias thesis focuses on the weakness of rural political power, and posits that the countryside loses out in the development process because it is less well organized politically than urban areas (Lipton, 1977; Bates, 1981). As a result, politicians tend to favor urban workers and the middle classes by holding food prices down, to the detriment of farmers and other rural producers. Although there have been challenges to this thesis (for example see Varshney, 1998, for the case of India), both proponents and critics of the urban-bias thesis highlight the limits of rural organization and civil society.

This is not to suggest that rural areas have no forms of organization. Francis Fukuyama (1995b) identifies three ‘broad
The Importance of Institutions

paths to sociability': first, the ties of family and clan; second, voluntary association beyond kinship; and third, relations mandated by the State. Rural areas tend to have strengths in the first path. Trust is high within the family, but according to Fukuyama’s ‘paradox of family values’, family members tend to be distrustful of outsiders. In rural areas, this situation is compounded by the fact that the density of associational life is usually low (Shue, 1994).

However, there are some indications that rural areas may see increasing benefit from investment in social capital and organizational renewal. First, due to development and migration, the urban–rural boundary is becoming less distinct. Heller’s (1996) study of social capital in Kerala, India, for example, suggests that the ‘vigorous’ associational life seen in the urban areas extends to the state’s rural areas, which have active school networks and high levels of organized agricultural labor. The democratic nature of state institutions, increased social mobility, and the role of the State in providing services, have proved positive for the organizational life of the State as a whole. The third path—the State—can strengthen the second path, but only as long as its role is enabling, rather than dominating (Schmitter, 1997).

Second, Asia may be an exception to the pattern of associational life springing from urban centers. Schmitter (1997) suspects that small towns and the countryside have produced much of the organizational life that has developed autonomously in Asia, rather than the cities, where the State dominates social life. Pei (1997) proposes that the PRC is undergoing ‘creeping democratization’ as a local, rural civil society slowly develops, as peasants gain participatory experience with the village residents’ associations. Although recognizing that many of the village residents’ associations are simply resuscitated forms of clan-based domination, Pei feels that some areas appear to be developing grassroots democracy in the face of the crisis of local leadership. This follows the breakdown of the Communist Party’s institutional hold on the countryside after the reform process.
Third, rural social organization often means more than undifferentiated kinship ties. Durston (1998) argues that marriage joins families and can produce a network of multiple and cross-linking bonds of trust. As the data presented above show, a high degree of trust among villagers is therefore possible, offering opportunities to develop policies to the advantage of rural organization.

There are also a number of mechanisms to help develop and strengthen rural organization. Transnational NGOs and international donors can have an enormous impact on rural social capital and civil society (Heyzer et al., 1995). They expand local possibilities for association; are much harder for authoritarian states to control (Schmitter, 1997); and can influence local organizations to encourage participation and citizen empowerment. NGO and donor work can be explicitly designed to build social capital. Membership in the rural credit programs of the Grameen Bank and the Bangladesh Rural Advancement Committee, for example, has expanded women’s identity beyond the family, and has allowed them to create new social ties of trust and mutual dependence with different members of their communities who are other borrowers (Schuler and Hashemi, 1994).

These arguments suggest that while rural Asia may be only slowly developing a true civil society, there are identifiable barriers that can be overcome. State agencies, institutional design, and efforts on the part of international organizations and donors can positively influence the outcomes and should be encouraged. The following case study of the aftermath of flooding in Bangladesh highlights how strengthening the organizations of civil society can make a QOL difference, even in a case where long-term institutionalized problems exist.
COPING WITH ADVERSITY: A CASE STUDY OF FLOODING IN BANGLADESH

Among the most unsettling features of rural life is vulnerability to the forces of nature, often because of dependence on agriculture. While natural disasters can affect urban and rural areas alike, their impact tends to be greater in rural areas because of more fragile housing, sparser infrastructure, and more vulnerable supplies of potable water. Moreover, people in rural areas tend to be poorer, less well nourished, and therefore less resistant to the diseases that often follow natural disasters.

However, institutions play an important role in how populations are able to respond to disaster. Consideration here of measures that can reduce the effects of natural disasters draws its inspiration in part from Amartya Sen (1981), who showed that famines are rarely caused by a lack of food, but are more likely to be a consequence of the sudden collapse of purchasing power and other unpredictable ‘exchange and entitlement’ failures. Some institutions such as food markets function normally, but populations unable to afford food starve while their regions are exporting food staples elsewhere. Given the actual per capita availability of grain in most countries experiencing famines, these problems can be averted through timely interventions by governments and other organizations. A mechanism of accountability to vulnerable populations is essential for this process to take place. Sen showed that famines have never occurred where democratic governments exist, in the presence of such institutions as opposition parties, a strong civil society, and a free press.

As with famines, many factors can influence the effects of natural disasters on the population, and designing policies that can substantially mitigate loss and suffering is possible. If

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13 This case study was written with Eben Kenah.
people learn to expect an effective response from their leaders and institutions in the face of a natural disaster, democratic governments, observed by a free press, NGOs, and opposition politicians, will oblige them as a matter of their own survival.

Flooding in Bangladesh

The case of flooding in Bangladesh, the world’s most densely populated country, shows how positive change can occur even where the enormity and persistence of disasters are daunting. Bangladesh is extremely vulnerable to disaster, particularly flooding, for a variety of reasons. In part, nature is to blame. Three great river systems run through it, funneling enough water through the country every year to submerge it to a depth of 10 meters (Islam, 1995), and the quality of the soil is such that flooding causes widespread erosion, property destruction, and decreased drainage efficiency. In addition, Bangladesh is located in one of the world’s least tectonically stable regions, and seismic activity can exacerbate flooding directly by changing the gradient over which waters run or indirectly by introducing sediment and debris into the river system.

Human activity has also contributed to flooding in Bangladesh. Deforestation and embankment systems have increased erosion and caused flood water to rise more quickly. In the Himalayas, for example, tree cover was reduced from about 200 to 150 million hectares during 1978–1987 (Safiullah et al., 1989). The situation is aggravated by poor planning in the construction of railways, homesteads, and roads, which can block the path of water during a flood, and by the generally poor maintenance of culverts and other water-control structures. Population growth (more than 1.6 percent in 1995) has led to a dramatic increase in population density, meaning that people have increasingly had to settle on marginal lands, further increasing their vulnerability.

Immediately after a major flood, the most important problems are related to health, housing, and the loss of assets.
The lack of access to potable water or safe food presents public health risks, which are often made worse by the lack of fuel to boil water or cook food. Leaf (1997) found in a survey that people were more likely to store fuel than food, and that they perceived fuel as a scarcer resource than food during floods. States of semi-starvation could persist for weeks after a flood, but cases of total starvation were rare (Hossain et al., 1987), although Adnan (1991) noted that for many rural populations the loss of income and rising food prices can create near-famine conditions.

In addition to lack of food, Hossain et al. (1987) found that many flood victims go for days without protection from the elements. Finding shelter for people and domestic animals is difficult; people want to stay as close to their homes as possible, and law enforcement grinds to a halt (Leaf, 1997). Women appear to be disproportionately affected by displacement, as traditional chores such as cooking and fetching water become extremely difficult and hazardous. Flood-prone areas tend to have more female-headed families, who tend not to own land and have children below working age, and are thus more vulnerable during floods. Also, the social consequences for displaced families who cannot provide dowries for their daughters are enormous.

Productive assets are inevitably lost during severe floods, with damage to crops the most serious loss (Hossain et al., 1987). Farmers are often unable to buy the new seeds and equipment necessary to replant quickly enough to recover crop losses. Floods are also responsible for deaths of domestic animals, escape of fish from ponds, and damage to gardens.

In the longer term, flooding and erosion trap people and their communities in poverty. Land and other assets may be transferred to wealthy landowners, as poor farmers sell their land and livestock at distress prices to become tenant farmers or migrants (Elahi and Rogge, 1990). Landlords are also able to appropriate new land that emerges from the flooding and erosion process, sometime by using private armies.

The problems of flood zones are compounded by institutional inadequacies. Among the most important are the
lack of investment in these areas and failures in the implementation of programs or the lack of government action altogether. The dearth of investment takes two forms. First, there is a general lack of credit for farmers following floods, which means they are often unable to recover from a flood quickly. Without credit, they cannot buy the new seeds and equipment necessary to replant quickly enough to recover crop losses. At the time of the Hossain et al. (1987) study, many people, in the absence of wealthy relatives or friends, were forced to borrow from big landowners or from money-lenders, who commonly charged annual interest rates in excess of 100 percent.

Second, nonagricultural investment is lacking in flood-prone areas. The Hossain et al. (1987) study showed that investment in nonagricultural activities was relatively rare, so that most people had few income-earning opportunities outside agriculture. The creation of nonagricultural employment is crucial for raising rural QOL, especially for those without access to land. In addition, social investment in flood zones tends to be affected by the floods. The QOL framework highlights the importance of infrastructure and investments in education and health, but often roads, schools, or clinics get washed away by the floods. The long delays in replacing them are likely to contribute to the prevention of virtuous cycles of upward QOL improvements.

Finally, flaws in the organization of responses to flooding appear to exacerbate the problems caused by the forces of nature. In the Hossain et al. (1987) survey, relief accounted for only a small percentage of consumption among flood victims: the Government had relief supplies but failed to distribute them effectively, while NGOs had effective distribution networks but few supplies. The Government’s predominant response to the flood problem was to construct embankments and shelters. However, most of the shelters were built far from the homes of those displaced, and allegations of local officials charging rent to shelter residents were widespread.

The Government’s planning efforts have also been quite deficient. Although studies and plans for flood control were
undertaken during much of the 20th century, their utility was often marred by inaccurate predictions of flooding, corruption, bureaucratic incompetence, and popular defiance of poorly designed and implemented programs. New strategies and plans were put into place after the epic floods of 1988, and these were put to the test during the floods of 1990. While those were smaller than in 1988, they revealed major deficiencies in planning, and the lack of relief for victims after the flood prompted widespread criticism of the Government and resulted in grassroots mobilization against it.

The 1998 Floods

The floods of 1998 were the worst in Bangladesh’s recorded history. The three great rivers peaked almost simultaneously and for much longer than normal. The human impact was medical, psychological, and economic. The destruction of sanitary systems and crops meant widespread health problems such as diarrhea and malnutrition. Diseases and accidents led to over a thousand deaths. Damage to infrastructure severed communications, left more than a quarter of the population—about 35 million people—homeless, and caused power to be cut to prevent electrocution. In addition, more than 13,750 educational institutions had to close either because of flood damage or to be converted into shelters. The erosion associated with receding flood waters washed away entire villages.

The economic impact was harsh in agriculture and industry. Millions of livestock were affected by various flood-related diseases, and 2.8 million tonnes of crops were ruined. The rural–urban migration rate increased dramatically as small farmers, agricultural laborers, and small business owners in rural areas sold their remaining land and possessions at distress prices, instantly becoming landless and poor. The industrial belt along the Buriganga River, the seat of the nation’s textile industry, was eventually forced to shut down because of rising flood waters, costing thousands of people their jobs. Exports
of frozen foods, leather goods, textiles, and shrimp dropped, causing Bangladesh to fall almost US$6 billion short of its export goals. The demand for wage labor disappeared as manufacturing, agriculture, and construction ground to a halt.

Despite the bleak portrait painted here, one of the most important facts about the 1998 floods is that despite their intensity and duration, their impact was significantly less than that of the floods of 1988. The total death toll in 1998 of 1,072 was almost 60 percent less than in 1988, and but a fraction of the reported deaths associated with major floods earlier in the century. The question must then be asked, ‘what has changed?’

The outcome in 1998 can be primarily attributed to a rapidly mobilized response on the part of the Government, the NGO community, and international aid agencies. By mid-September, 4,409 government medical teams were providing basic medical services throughout the country. Other organizations, including CARE, the Bangladesh Rural Advancement Committee, Gonoshastho Kendro, Grameen Bank, and Proshika, also provided medical relief. The US Air Force provided 50 personnel and two C-130 transport aircraft to help airlifting operations. Aid organizations in 30 countries pledged more than US$176 million. The World Food Program provided more than 352,000 tonnes of wheat to help ameliorate malnutrition.

Many factors played a role in mitigating the human costs of the floods. First, newly available technology played a significant role. Satellite-imaging techniques gave advance warning of the flooding, and this enabled preparation for the relief effort on the part of both the Government and NGOs. The use of cellular telephones allowed communication from remote rural areas that might otherwise have been isolated. Through a widespread communications network, NGOs were able to keep track of the relief effort and direct assistance to those locations that were most badly affected.

Another significant factor was the increase in education levels. Literacy rates in Bangladesh increased from 26 percent
of the population in 1975 to 38 percent in 1996. Primary school enrollment rates increased from 54 percent to just over 90 percent (ADB, 1997b). Increased educational attainment is associated with improvements in common knowledge about the importance of safe water and sanitation. Indeed, there are numerous stories of Bangladeshi communities resisting the temptation to drink water before it could be sterilized.

Perhaps the most consequential change, however, lies in the changing nature of local political participation over the past 10 years. Previous flood planning and relief was characterized by a severe lack of responsiveness to local public opinion. The strengthening of civil society through a rise in the level of local organization, facilitated by both NGOs and citizens’ groups, has gradually begun to force a change in this approach. These organizations, which include occupational and professional groups, societies of the landless, farmers’ cooperatives, peasants’ associations, and women’s groups, have been able to forge channels of communication between disadvantaged groups and decision makers, governments, donor organizations, and the international public. As a result of working with previous floods, distribution networks have grown and valuable experience has been captured. In a massive coordinated effort, NGOs provided food and medical relief to the 1998 flood victims at a level almost comparable with that of the government effort, reaching more than two thirds of Bangladesh’s villages. Their activities have had a dramatic impact on the death toll and on the rural population’s ability to recover from crop, income, and housing losses.

Another less direct but equally important role that NGOs have played in the process has been to facilitate the incorporation of civil society in the process of flood relief. Through programs that have raised awareness and encouraged the political organization of those belonging to vulnerable and disadvantaged groups, they have forced the Government to be more accountable to its citizens. The increased level of organization at the grassroots level has enabled flood victims to exert greater political power, increasing government responsiveness to their needs. This can go a long
way in explaining the rapid, extensive, and remarkably efficient relief effort by the Government and civil society that prevented the 1998 flood from being a disaster of much greater proportions.

HUMAN RIGHTS: THE IMPORTANCE OF IMPLEMENTATION

Implementation of policies is critical. Even well designed policies may fail at this stage (Grindle and Tomas, 1991; Zelikow, 1994). As suggested by the QOL framework, the promotion of human rights has a positive effect on all aspects of QOL, while improved QOL often allows people to enjoy more rights. Boone (1996) provides empirical evidence of the links between human rights and development. Using indicators of human rights abuses in 101 countries, he examined the empirical determinants of gender, political, and ethnic oppression, as well as the impact of oppression on poverty. He found that oppression was negatively correlated with income, and positively correlated with basic poverty indicators. His estimates indicated that for low-income countries, shifting away from highly repressive regimes to liberal regimes could have a significant impact on such QOL indicators as infant mortality rates.

As the experiences of many Asian countries show, it is not sufficient to rely on general development to stop human rights violations. The protection of basic human rights for the inhabitants of rural Asia relies fundamentally on political, legal, economic, and social frameworks. It is the role of legal institutions to explicitly define and secure human rights. However, as the following examples show, the existence of laws is not in itself adequate because enforcement is often inhibited by political and social institutions. In fact, the enforcement of rights is often responsible for bringing various institutional structures into direct conflict.
Debt Bondage and Caste

The importance of implementation is illustrated by the example of debt bondage. Debt bondage is a form of indentured servitude, where individuals work for extremely low wages, usually to pay off a debt. It is widespread in South Asia, to the extent that the Anti-Slavery Society estimates that in India alone, debt bondage could account for up to 10 percent of the population, or more than 80 million people (Anti-Slavery Society, 1988). The existence of debt bondage can be traced to market failure. Poor sharecroppers or landless laborers lack access to credit markets and are unable to secure nonexploitative loans during lean periods. Debt bondage fills this gap, with loans that take a disproportionate period to pay off, due to low wages, high interest charges, fraud, and a range of additional charges (Index on Censorship, 2000).

While the existence of this system can be traced to market failure, its continuation is enabled by the weakness of prevalent political and legal institutions. Although legal statutes are in place that strictly prohibit debt bondage, especially for children, these are seldom enforced. Local power structures tend to favor rich and powerful landlords, and wealthy manufacturers can easily manipulate corrupt political systems. In India, the system of bonded labor is also closely tied to the caste system: as much as 80 percent of India’s bonded laborers are low-caste Hindus or members of tribal groups. These groups have had a long history of discrimination and have little leverage within the power infrastructure. In Pakistan, meanwhile, around 20 million persons are in debt bondage, despite the fact that the practice was banned in 1992 and is supposed to be eradicated by 2003.

The caste system itself represents a serious violation of human rights, and is another example of the need for strong political and legal institutions to modify the natural development of social institutions. While the anonymity provided by cities is increasingly breaking down the caste system in urban areas, the discrimination faced by members of lower castes in rural areas is still extreme. The Government
of India has not only made untouchability illegal, it has put in place numerous affirmative action programs to improve the status of these groups, now designated as ‘scheduled castes’ (tribal groups that have also traditionally been discriminated against are known as ‘scheduled tribes’ and are offered many of the same privileges). Quotas are set aside for their admission into colleges and professional schools, and seats are reserved for them in national and local legislatures.

While this has enabled some members of lower castes to break free from the restrictions the caste system has placed on them, such policies have done little to affect the day-to-day culture of discrimination that persists in rural areas. Control of local panchayats, the rural governing bodies, for the most part remains in the hands of upper castes, enabling them to perpetuate inequalities. Any attempt to change the system made by lower castes is liable to be met with violent attacks on their persons and property. Recent caste violence in the state of Bihar claimed more than 80 lives, as upper-caste resentment against lower-caste attempts to organize politically and to demand equal rights boiled over. In the words of the state Home Secretary Raj Kumar Singh: “It’s a struggle for power. In villages, the meetings are now being held on harijan [untouchable] premises, and this rankles.” The explanation of an upper-caste villager was, “They don’t want to work and they want to wear slippers and walk past [our] homes without lowering their heads” (India Today, 15 April 1999).

It is often left to civil society to act when governments are unable to enforce legislation on human rights violations. NGOs are often the first to draw attention to human rights abuses, as they work most closely with minorities, bonded laborers, women, and other underprivileged members of society. They can educate these groups about their rights and play a pivotal role in empowering them and organizing them to fight to secure these rights. Also, by targeting poverty through such projects as microfinance or literacy programs, they attack the pillars that support systems of discrimination and give disadvantaged groups the ability to break free from poverty traps.
Another institution that has a tremendous influence on QOL outcomes is gender. The prevailing set of ideas and attitudes that people hold about men and women, and the social and household roles that correspond to each, are powerful determinants of the opportunities offered to and enjoyed by men and women. The design and content of policies often incorporate common notions of appropriate gender roles, and as such may lead to QOL outcomes that differ for men and women. For example, employment programs may be geared to men on the assumption that they are the primary breadwinners.

Policies and outcomes, conversely, may influence the institution of gender, either reinforcing assumptions or changing ideas about the roles of women and men. Policies that seek to promote gender equity, such as establishing female quotas for elected office, may cause individuals to question their previously held notions of gender. The presence of women in governing bodies may force citizens to rethink their ideas about women’s capabilities, or it may encourage other women to become socially active. Policy outcomes may also influence notions of gender. The idea of gender empowerment is that policies giving people more autonomy and capabilities can induce them to change or question their beliefs about the prevailing gender structures that put them at a disadvantage.

In addition, the reception of policies by beneficiaries may be conditioned by beliefs regarding gender. Much of the literature on women’s advancement in Asia suggests that the ameliorative effects of programs or policies designed to help women may be mitigated by traditional gender ideologies. Others have argued that a transformation of gender ideologies and roles in urban Asia underlies the creation of the new middle classes, but that this process excludes the rural sector (Krishna Sen, 1998; Stivens, 1998). For all these reasons it is critical for policymakers to understand and be aware of the set of (often hidden) beliefs about gender that exist in their societies.
In this section, a number of areas—health, education, and work—that are crucial for QOL are examined, and show that a pervasive gender gap exists in rural Asia in terms of outcomes. Microdata on gender attitudes are then examined, which show that greater traditionalism exists in rural areas. This is significant because it suggests that policies designed to correct the gender gap in QOL outcomes will need to confront institutionalized beliefs about gender that work against gender equality.

**Health**

In rural Asia, gender is an important determinant of both access to health care and health outcomes. For women in much of the region, gender disparities begin at birth, with life expectancies following a different pattern than is found in the rest of the world, where women can expect to live considerably longer than men. Women, for example, have higher mortality rates than men at all ages in rural Bangladesh (Riley, 1997) and a lower life expectancy at birth (ESCAP, 1995a). In Pakistan, the mortality rate for girls aged under four is 66 percent higher than for boys (Wallerstein, 1998). Overall, it is remarkable to note that in Asia, which is estimated to have millions of ‘missing women’ due to undercounting, premature death, and sex-selective abortion, many gender-related health problems are problems of the rural sector.

Another area of health in which there are important gender concerns is reproduction. Fertility tends to be higher in rural than urban Asia, although generally it has fallen in both areas over time. The higher fertility of women in rural areas reflects a preference for more children, early marriage, lack of opportunities for education and employment, and a lack of availability or knowledge of contraception. Rural women, in general, also tend to have higher maternal mortality rates than do urban women, because of lack of access to prenatal care and a greater tendency to have home births.
These general tendencies hide wide regional variations. South Asia, with the exception of Sri Lanka, has far worse gender discrepancies in health than the rest of the region. In contrast, in the more developed economies such as Thailand, there are fewer male–female differences in the rural or urban sectors.

A striking feature is the gap in health-care coverage between urban and rural areas (Table IV.3). While this clearly points to the need for greater investment in rural health care, especially contraceptive programs and prenatal and nutritional care for rural women, this is unlikely to be sufficient in some countries. Equal access does not always imply equal outcomes, as the data on contraceptive knowledge and sources in India show. Despite very small urban–rural differences in knowledge about contraception and where to obtain it, the urban–rural fertility rate differential is very large. Perceptions of the utility of children, the likelihood of their survival, their opportunity cost, and ideas about the centrality of motherhood for women presumably all play a part in decisions about childbearing. Understanding that these may differ for urban and rural inhabitants suggests that a much broader strategy than simply providing information and access is necessary to close the health-care gap.

Action on health for women needs to be taken through a general approach to improving their QOL, as gender-specific problems are deeply intertwined. As Wallerstein (1998) points out in the case of Pakistan, for example, the large difference in male–female literacy rates makes it much more difficult to educate women about reproductive health issues and the need for care. A multisectoral approach to solving gender-related inequities is an essential strategy for long-term sustainable solutions.

**Education**

Education has enormous potential to improve people’s lives, but for women, especially in the developing world, beneficial outcomes are dependent on social context and gender
Table IV.3: Gender and Health in Rural Asia. Available Statistics by Country

<table>
<thead>
<tr>
<th>South Asia</th>
<th>Bangladesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth (1995) lower for women and gap is larger in rural areas:</td>
<td></td>
</tr>
<tr>
<td>Life expectancy</td>
<td>Male</td>
</tr>
<tr>
<td>Urban</td>
<td>61.0</td>
</tr>
<tr>
<td>Rural</td>
<td>56.6</td>
</tr>
<tr>
<td>Higher rural fertility rate; although declining, large overall rural–urban gap remains:</td>
<td></td>
</tr>
<tr>
<td>Fertility rate</td>
<td>1983</td>
</tr>
<tr>
<td>Urban</td>
<td>3.5</td>
</tr>
<tr>
<td>Rural</td>
<td>5.4</td>
</tr>
<tr>
<td>Rural girls are the children least likely to be immunized:</td>
<td></td>
</tr>
<tr>
<td>(DPT/Polio)</td>
<td>Male</td>
</tr>
<tr>
<td>Urban</td>
<td>81.1</td>
</tr>
<tr>
<td>Rural</td>
<td>68.3</td>
</tr>
<tr>
<td>Causes of death differ more by residence than gender.</td>
<td></td>
</tr>
<tr>
<td>Five leading causes of death</td>
<td></td>
</tr>
<tr>
<td>Urban males</td>
<td>Urban females</td>
</tr>
<tr>
<td>Measles, etc.</td>
<td>Measles, etc.</td>
</tr>
<tr>
<td>Senility</td>
<td>Senility</td>
</tr>
<tr>
<td>Diabetes, etc.</td>
<td>Diabetes, etc.</td>
</tr>
<tr>
<td>Tumors, etc.</td>
<td>Tumors, etc.</td>
</tr>
<tr>
<td>High BP</td>
<td>Diarrhea</td>
</tr>
</tbody>
</table>

India

Female life expectancy at birth gradually exceeding that of males; large urban–rural differences:

<table>
<thead>
<tr>
<th>Life expectancy</th>
<th>1970</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy</td>
<td>48.9</td>
<td>59.2</td>
</tr>
<tr>
<td>Male</td>
<td>58.8</td>
<td>47.1</td>
</tr>
<tr>
<td>Female</td>
<td>62.0</td>
<td>56.1</td>
</tr>
<tr>
<td>Rural</td>
<td>56.2</td>
<td></td>
</tr>
<tr>
<td>Higher rural fertility rate; although declining, overall rural–urban gap remains:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fertility rate</td>
<td>1970</td>
<td>1992</td>
</tr>
<tr>
<td>Urban</td>
<td>4.1</td>
<td>2.7</td>
</tr>
<tr>
<td>Rural</td>
<td>5.6</td>
<td>3.7</td>
</tr>
<tr>
<td>Slight urban–rural differences in knowledge of contraceptive methods among women:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of currently married women knowing any modern method of contraception and source</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Method</td>
<td>Source</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>98.6</td>
<td>95.5</td>
</tr>
<tr>
<td>Rural</td>
<td>94.5</td>
<td>86.5</td>
</tr>
<tr>
<td>Higher female child death rates in rural areas:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death rates, under-4-year-olds (1987)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>8.1</td>
<td>18.5</td>
</tr>
<tr>
<td>Rural</td>
<td>37.8</td>
<td>41.8</td>
</tr>
</tbody>
</table>

(continued next page)
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Table IV.3 (Cont.)

<table>
<thead>
<tr>
<th>Country</th>
<th>Life expectancy at birth (1991) lower for women and gap is larger in urban areas:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nepal</td>
<td><strong>Life expectancy</strong>Male Female</td>
</tr>
<tr>
<td></td>
<td>Urban 70.9 58.5</td>
</tr>
<tr>
<td></td>
<td>Rural 53.8 52.3</td>
</tr>
<tr>
<td></td>
<td>Urban women much more likely to have a doctor attend a birth (36%) than are rural women (4%).</td>
</tr>
<tr>
<td></td>
<td>Higher rural fertility rate although declining; large overall rural–urban gap remains:</td>
</tr>
<tr>
<td></td>
<td><strong>Fertility rate</strong> 1981 1991 Urban 5.0 3.5</td>
</tr>
<tr>
<td></td>
<td>Rural 6.3 5.8</td>
</tr>
<tr>
<td></td>
<td>Women’s ideal family size differs by residence; higher family size preferred in rural areas:</td>
</tr>
<tr>
<td></td>
<td><strong>Ideal no. children</strong> 1981 1991 Urban 3.8 2.7</td>
</tr>
<tr>
<td></td>
<td>Rural 3.9 3.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>Males outnumber females in Pakistan but proportion of males is falling since female mortality is declining more rapidly than that of males. Since the 1970s, life expectancy at birth has been higher for women than men. No rural–urban breakdowns available.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High fertility rates overall, lowest in large cities:</td>
</tr>
<tr>
<td></td>
<td><strong>Fertility rate</strong> 1991 Urban 4.7</td>
</tr>
<tr>
<td></td>
<td>Rural 5.6</td>
</tr>
<tr>
<td></td>
<td>Little use of contraception; national family planning program severely restricted in rural areas:</td>
</tr>
<tr>
<td></td>
<td><strong>% of married women currently using any contraception (1991)</strong> Major city 31.0 Urban 18.8 Rural 5.8</td>
</tr>
<tr>
<td></td>
<td><strong>Coverage of government family planning program (%)</strong> Urban 54 Rural 5</td>
</tr>
<tr>
<td></td>
<td>High maternal mortality rates nationwide, worse in rural areas:</td>
</tr>
<tr>
<td></td>
<td>- Urban women much more likely to have trained health professional attend a birth (60.6%) than are rural women (24.1%).</td>
</tr>
<tr>
<td></td>
<td>- Urban women much more likely to have at least one prenatal visit (60%) than are rural women (21%).</td>
</tr>
<tr>
<td></td>
<td>- Girls less likely to be immunized than boys and gender discrepancies worse in rural areas.</td>
</tr>
<tr>
<td></td>
<td>(continued next page)</td>
</tr>
</tbody>
</table>
Since the 1970s, women have had lower mortality rates than men at all ages; in 1991, women had a life expectancy of 74.2 years or 4.5 years longer than men, and comparable to many developed countries.

Unlike rest of South Asia, little discrimination against girls in terms of feeding or health care.

Women's fertility rate has declined dramatically and is lowest in the region at 2.3 (1993), down from 3.7 in 1991.

Knowledge of contraceptive methods almost universal among married women (99.3% in 1993) but urban–rural differences exist in usage. Rural women are most likely to be using some form of contraception:

<table>
<thead>
<tr>
<th></th>
<th>Colombo</th>
<th>Urban</th>
<th>Rural</th>
<th>Estate</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of married women</td>
<td>62.7</td>
<td>57.7</td>
<td>68.3</td>
<td>54.5</td>
</tr>
<tr>
<td>currently using any</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>contraception (1991)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

High proportion of urban (99%) and rural births (95%) attended to by trained professionals, although urban births more likely to be with doctor (45%) while rural births more likely to have nurse or family health worker (77%).

Life expectancy consistently higher for women than men; large differences by province:

<table>
<thead>
<tr>
<th>Life expectancy</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>61.2</td>
<td>64.9</td>
</tr>
<tr>
<td>Jakarta</td>
<td>67.3</td>
<td>71.3</td>
</tr>
<tr>
<td>Bali</td>
<td>65.2</td>
<td>69.1</td>
</tr>
<tr>
<td>West Nusa Tenggara</td>
<td>51.2</td>
<td>4.3</td>
</tr>
</tbody>
</table>

Fertility has declined dramatically over past 30 years but still slightly higher in rural areas, where contraceptive use is lower than urban areas:

<table>
<thead>
<tr>
<th>Fertility rate</th>
<th>(1994)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>2.31</td>
</tr>
<tr>
<td>Rural</td>
<td>3.15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contraceptive use by currently married women (%)</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60.2</td>
<td>52.5</td>
</tr>
</tbody>
</table>

Infant mortality is significantly higher among male than female infants in all provinces.

Despite improvements in health care, maternal mortality remains high, largely due to lack of professional care for births, a condition that especially affects rural areas.
Table IV.3: (Cont.)

<table>
<thead>
<tr>
<th>Indonesia (cont.)</th>
<th>Birth Assistance (%, 1994)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Doctor</td>
</tr>
<tr>
<td>Urban</td>
<td>7.3</td>
</tr>
<tr>
<td>Rural</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Few gender differences in causes of mortality.

<table>
<thead>
<tr>
<th>Lao PDR</th>
<th>For both men and women, life expectancy is low at 52.5 for women and 49 for men. In remote rural areas, it may be half of that in cities although no precise breakdown by gender and residence is available. General lack of health care facilities in rural areas puts women (especially pregnant) at high risk because of endemic diseases like malaria. Fertility is one of highest in world (6.8) and has shown few signs of decreasing. Government only recently moved away from pronatalist position. Lowest fertility levels are among urban women:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fertility rate</td>
<td>1994</td>
</tr>
<tr>
<td>Urban</td>
<td>6.0</td>
</tr>
<tr>
<td>Semi-rural</td>
<td>7.8</td>
</tr>
<tr>
<td>Rural</td>
<td>6.9</td>
</tr>
</tbody>
</table>

Few rural women have access to prenatal care or professional assistance for births and most rural births are attended to by family members at home, raising risk of factors associated with complications:

<table>
<thead>
<tr>
<th>% of home deliveries (1995)</th>
<th>% of women with any prenatal care (1995)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>Urban</td>
</tr>
<tr>
<td>71.2</td>
<td>73.1</td>
</tr>
<tr>
<td>Rural</td>
<td>Rural</td>
</tr>
<tr>
<td>94.9</td>
<td>17.6</td>
</tr>
</tbody>
</table>

Rural villages generally lack anti-malarial programs (25% coverage), clean water/sanitation program (49% coverage) and have weak coverage of immunization (68%).

<table>
<thead>
<tr>
<th>Philippines</th>
<th>Female life expectancy (67.0) higher than male (63.1) but no urban–rural breakdown available. Fertility has declined slowly and remains higher in rural areas: Fertility rate (1993)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fertility rate</td>
<td>1993</td>
</tr>
<tr>
<td>Urban</td>
<td>3.5</td>
</tr>
<tr>
<td>Rural</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Relatively high maternal mortality rate linked to poor nutrition (especially anemia) and lack of medical attention for births: Birth Assistance (%, 1992)

<table>
<thead>
<tr>
<th>Birth Assistance (%)</th>
<th>% of women with any prenatal care (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor</td>
<td>Midwife</td>
</tr>
<tr>
<td>Urban</td>
<td>28.8</td>
</tr>
<tr>
<td>Rural</td>
<td>19.4</td>
</tr>
</tbody>
</table>

No gender differences in immunization rates.

(continued next page)
Table IV.3 (Cont.)

<table>
<thead>
<tr>
<th>Philippines (cont.)</th>
<th>Little urban–rural difference in vaccination coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban 73</td>
</tr>
<tr>
<td></td>
<td>Rural 70</td>
</tr>
<tr>
<td></td>
<td>Few gender differences in causes of mortality.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thailand</th>
<th>Life expectancy is 71.7 years for women, 66.6 for men.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fertility has fallen rapidly in both rural and urban</td>
</tr>
<tr>
<td></td>
<td>areas as a result of changing attitudes and widespread</td>
</tr>
<tr>
<td></td>
<td>availability and practice of family planning. Fertility</td>
</tr>
<tr>
<td></td>
<td>rate nationally is 1.95. Family planning practice</td>
</tr>
<tr>
<td></td>
<td>ranges from 46% in more rural south to 69% in northern</td>
</tr>
<tr>
<td></td>
<td>region. Access to prenatal care and professional</td>
</tr>
<tr>
<td></td>
<td>assistance with deliveries is higher in urban areas:</td>
</tr>
<tr>
<td></td>
<td>% of deliveries with professional care</td>
</tr>
<tr>
<td></td>
<td>Urban 96</td>
</tr>
<tr>
<td></td>
<td>Rural 59</td>
</tr>
<tr>
<td></td>
<td>% of women with any prenatal care (1989)</td>
</tr>
<tr>
<td></td>
<td>Urban 95</td>
</tr>
<tr>
<td></td>
<td>Rural 74</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>East Asia</th>
<th>Life expectancy is higher for females (70.4 years in 1995) than males (66.7).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The one-child policy family planning program has drastically reduced fertility, although rural fertility remains higher because of less strict compliance. Also, it is easier to hide 2nd birth from authorities; different policies for national minorities are in effect.</td>
</tr>
<tr>
<td></td>
<td>Fertility rate</td>
</tr>
<tr>
<td></td>
<td>Beijing</td>
</tr>
<tr>
<td></td>
<td>Shanghai</td>
</tr>
<tr>
<td></td>
<td>Guizhou</td>
</tr>
<tr>
<td></td>
<td>Tibet</td>
</tr>
<tr>
<td></td>
<td>High familiarity with contraceptive methods in both rural and urban areas. Prenatal care and maternal mortality highly linked to rural–urban residence: Prenatal care: Urban 98% Rural 78% Hospital births: Urban 72% Rural 42% Infant mortality rate higher in rural areas and for girls (1990):</td>
</tr>
<tr>
<td></td>
<td>Infant mortality rate</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
</tr>
</tbody>
</table>

ideology. Education gives people more choice and power over their lives, but some, such as Jayaweera (1997) using data for Asia, have argued that there is no clear link between education and women’s empowerment. Rather, where ideas about gender prevent women from being able to take advantage of their education (for example when having a working wife or daughter diminishes a family’s prestige in the eyes of the community), empowerment does not follow. Women’s economic independence is crucial for empowerment, and while education sometimes fosters that, configuration of the institution of gender in a particular society plays a key mediating role in the link between the two.

Gender is especially important in affecting the demand for education. For example, in countries such as Pakistan where there are strict cultural limits on women’s ability to participate in many of the better-paid employment sectors, there is little incentive to educate daughters (Alderman et al., 1996). Lack of access to employment also means that the presumed effects of education on values and attitudes may be curtailed. In Sri Lanka, where women’s employment opportunities are limited, education appears to influence fertility simply by keeping girls in school for longer and by raising the age at which childbearing is culturally appropriate, rather than by fundamentally shifting ideas and norms about women’s roles (Malhotra and Tsui, 1996).

Work

Work is a highly gendered enterprise. Occupations historically have tended to have a male or female focus, and jobs that are considered women’s work are frequently poorly paid. To understand work in rural Asia, it is necessary to consider the gender and social dynamics that determine who does what. Table IV.4 lists, for a number of countries, labor-force participation rates by gender and residence, as well as other available facts about gender differences in work. In both urban and rural settings, the numbers of women in the labor
Table IV.4: Work and Gender in Rural Asia

<table>
<thead>
<tr>
<th>Country</th>
<th>Labor-Force Participation Rates, 1989</th>
<th>72.8% of rural women in agriculture compared with 53.2% in urban areas.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>Urban 72.7</td>
<td>28.9</td>
</tr>
<tr>
<td></td>
<td>Rural 82.5</td>
<td>67.3</td>
</tr>
<tr>
<td>Bangladesh</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

India

Higher percentage of women than men are classified as marginal workers; higher still among rural women. Lower wages in rural sector for women; women gaining ground but not in states with worst indicators for women.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban 59.6</td>
<td>14.6</td>
</tr>
<tr>
<td></td>
<td>Rural 61.4</td>
<td>29.2</td>
</tr>
</tbody>
</table>

India

Higher percentage of women than men are classified as marginal workers; higher still among rural women. Lower wages in rural sector for women; women gaining ground but not in states with worst indicators for women.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban 59.6</td>
<td>14.6</td>
</tr>
<tr>
<td></td>
<td>Rural 61.4</td>
<td>29.2</td>
</tr>
</tbody>
</table>

Indonesia

Gender wage gap in agriculture is among worst of any sector in economy; (1990 F/M earnings in agriculture was 54.5%) partly based on gendered division of labor that devalues women’s work.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban 64.0</td>
<td>74.4</td>
</tr>
<tr>
<td></td>
<td>Rural 31.6</td>
<td>42.2</td>
</tr>
</tbody>
</table>

Nepal

High percentage of rural women in unpaid family work; more opportunities for self-employment in rural areas; vast majority of rural women work in agriculture, but it is also most common category for urban women.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban 59.0</td>
<td>20.2</td>
</tr>
<tr>
<td></td>
<td>Rural 69.2</td>
<td>47.8</td>
</tr>
</tbody>
</table>

Pakistan

Higher rural female participation rates due to more opportunities for self-employment in agriculture; exclusion from urban service sector; protective labor laws discourage female hires.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban 64.9</td>
<td>7.3</td>
</tr>
<tr>
<td></td>
<td>Rural 71.3</td>
<td>15.9</td>
</tr>
</tbody>
</table>

Philippines

Gender gap in wages (1990) is large in both urban and rural areas but has not diminished in rural areas since 1980 due to more inequitable earnings in agriculture.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban 72.4</td>
<td>47.2</td>
</tr>
<tr>
<td></td>
<td>Rural 84.6</td>
<td>47.7</td>
</tr>
</tbody>
</table>

(continued next page)
force tend to be lower than those of men, a reflection of women’s domestic responsibilities.

One striking feature is how often the participation rates of rural women are higher, often substantially higher, than their urban counterparts, especially in South Asia and Thailand. In part, this reflects the nature of agricultural production. There are many more unpaid family workers in the rural sector, and women tend to be disproportionately represented in that group. However, when educational opportunities become available to women, as in the case of Sri Lanka, their tendency to work as unpaid family labor diminishes (ESCAP, 1997d). There is also often more scope for self-employment for women in the rural sector, e.g. as farm laborers, than in urban areas. Cultural reasons sometimes also form part of the explanation, as in Pakistan. One reason why urban female employment there is so low is that women tend not to be involved in the service sector, as they are in many countries, because it would involve having to deal with male members of the public (ESCAP, 1997c).

In most countries of Asia, employed rural women tend to be found overwhelmingly in the agricultural sector. Men

---

**Table IV.4 (Cont.)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Labor-Force Participation Rates, 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sri Lanka</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High levels of female employment in 10–14 age category suggesting work–school trade-off for girls; many unpaid female family workers in rural region but declining as educational opportunities for women expand.</td>
</tr>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>Urban</td>
<td>65.9</td>
</tr>
<tr>
<td>Rural</td>
<td>63.3</td>
</tr>
<tr>
<td>Thailand</td>
<td>Labor-Force Participation Rates, 1990</td>
</tr>
<tr>
<td></td>
<td>Nonmunicipal work mainly in agriculture; more unpaid family workers among rural than urban women. Both urban and rural wage gaps for women, but in rural highest in service sector; little wage gap in public sector.</td>
</tr>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>Municipal</td>
<td>77.0</td>
</tr>
<tr>
<td>Nonmunicipal</td>
<td>86.1</td>
</tr>
</tbody>
</table>

are quickly finding other types of employment and the feminization of agriculture is proceeding at pace. The effects of this are uncertain. The new nonagricultural jobs tend to be more highly paid, decreasing women’s bargaining power, but they also tend to involve men in travel, increasing women’s authority within the household. The importance of women to farming may have a negative impact on their education. In the PRC, some girls are being kept out of school to work when men leave the farm (Riley, 1997). The situation is similar in Viet Nam (Johansson et al., 1996).

Kinwork

One area of women’s work that has received little attention is ‘kinwork’, which is the job, often done by women, of maintaining social networks and ties between relatives and friends (di Leonardo, 1987). It is a process of keeping families and communities thriving by consolidating networks of interdependence, through ceremonies, gift giving, and labor exchange such as childcare or household help. Kinwork provides some insurance against economic hardship. In India, for example, family networks provide social security in times of moderate deprivation (Agarwal, 1991), while in rural Central Asia, social ties play an increasingly important economic function, following the breakdown of the Soviet system (Kandiyoti, 1998; Werner, 1998).

Ties between relatives and neighbors can also limit the need for borrowing from money-lenders. Koroteyeva and Makarova (1998), who examined gift-giving in Uzbekistan, argued that celebrations are often a means of accumulating resources rather than spending them. By receiving gifts at celebrations such as weddings, people avoid having to borrow money at high rates to carry out their necessary social obligations. Kinwork, like household labor, is part of women’s ‘invisible’ contribution to the economy, social capital formation, and the QOL of their community more generally. For policymakers, the opportunity to work through the networks
The Importance of Institutions 127

maintained by women is clearly an important one. By understanding how gender is ‘done’ locally, policymakers can create truly effective programs that ensure both equity and sustainability.

Gender Attitudes in Rural Areas

Both the gender gap in QOL outcomes, and the invisibility or devaluation of the kinds of tasks that women do, suggest a policy agenda that focuses more on the differential impact of programs and the different needs and interests of men and women. Compounding the difficulty of the task for policymakers is the fact that ideas about domestic gender roles tend to be somewhat less egalitarian in rural than urban areas. Typically, sociologists and psychologists see an individual’s idea about gender as falling on a continuum from traditional to egalitarian (Hochschild, 1989). While the specific content of that scale is time- and culture-specific, some common themes across modern cultures can be seen as constituting traditional gender ideology: an association of women with the domestic sphere and chores; a related devaluation of the work done by women; a primary role for women in reproduction and mothering and a secondary, if any, role in paid labor; a primary role for men in breadwinning; and a dominance of male over female authority. By contrast, egalitarian gender ideology assumes a belief in autonomy for men and women, sharing of domestic chores and decision making, and equal opportunities in the labor market.

Ideas about gender and how they vary across the rural and urban divide in two Asian countries are surveyed here, using survey data from the 1990–1993 World Values Survey. A survey in India and the Republic of Korea contained questions that tap into different dimensions of attitudes toward gender, specifically those dealing with equality of opportunity in the labor force and the centrality of family and motherhood.
for women. Some of the key differences between men and women in urban and rural areas are presented with respect to their ideas about the roles and meanings associated with gender.

The results from both India and the Republic of Korea suggest that on the question of family and motherhood, rural inhabitants are considerably more traditional than urban dwellers. Within each of those groups, women tend to be more traditional than men, espousing the centrality of the domestic role as constitutive of female identity (Tables IV.5 and IV.6).

At the same time, however, women are more likely than men to reject the idea that males are entitled to jobs based simply on their gender (Table IV.7). In India, slightly over half of rural and urban women disagree that men should get hiring preferences when jobs are tight, while two thirds of men believe that they should. In rural Republic of Korea the same pattern holds, with women less traditional than men in their attitude to the labor market. The only exception we find is in urban Korea, where urban women are much more likely than urban men to think that men have more rights to jobs than women. This may be related to a phenomenon some feminist scholars have described in affluent parts of urban Asia, where the ability of a wife to stay at home may be a sign of wealth and privilege (Stivens, 1998). If urban women in the Republic of Korea aspire to such an arrangement, then they may feel that achieving it requires men to have preferential access to jobs.

14 Attitude toward gender equality in the labor market is measured by the question: “When the jobs are scarce, men have more right to a job than women” (agree/disagree). Gender role issues are captured by the questions: “A job is alright but what women really want is a home and family” (agree/disagree); and “A woman has to have children in order to be fulfilled” (agree/disagree).
The Importance of Institutions

The qualitative data suggest that the path to equality for women in rural Asia contains obstacles stemming from prevailing ideas about gender. Much evidence suggests that only when gender equity and empowerment obtain can the fully beneficial results of QOL inputs be achieved. In the absence of social and ideological structures to support women’s

**Table IV.5: Percentage of Respondents Who Strongly Agree That**

“a job is all right but what women really want is a home and family”

<table>
<thead>
<tr>
<th></th>
<th>India</th>
<th>Republic of Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Men</td>
<td>63.7</td>
<td>58.5</td>
</tr>
<tr>
<td>Rural Women</td>
<td>67.0</td>
<td>66.4</td>
</tr>
<tr>
<td>Urban Men</td>
<td>32.5</td>
<td>40.2</td>
</tr>
<tr>
<td>Urban Women</td>
<td>41.6</td>
<td>49.4</td>
</tr>
</tbody>
</table>


**Table IV.6: Percentage of Respondents Who Believe That**

“a woman has to have children in order to be fulfilled”

<table>
<thead>
<tr>
<th></th>
<th>India</th>
<th>Republic of Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Men</td>
<td>94.4</td>
<td>75.6</td>
</tr>
<tr>
<td>Rural Women</td>
<td>99.5</td>
<td>84.5</td>
</tr>
<tr>
<td>Urban Men</td>
<td>90.1</td>
<td>71.1</td>
</tr>
<tr>
<td>Urban Women</td>
<td>92.5</td>
<td>79.2</td>
</tr>
</tbody>
</table>


**Table IV.7: Percentage of Respondents Who Agree That**

“when jobs are scarce, men have more right to a job than women”

<table>
<thead>
<tr>
<th></th>
<th>India</th>
<th>Republic of Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Men</td>
<td>67.0</td>
<td>50.5</td>
</tr>
<tr>
<td>Rural Women</td>
<td>49.5</td>
<td>38.1</td>
</tr>
<tr>
<td>Urban Men</td>
<td>66.7</td>
<td>35.1</td>
</tr>
<tr>
<td>Urban Women</td>
<td>44.6</td>
<td>47.7</td>
</tr>
</tbody>
</table>


**Obstacles to Equality**

The qualitative data suggest that the path to equality for women in rural Asia contains obstacles stemming from prevailing ideas about gender. Much evidence suggests that only when gender equity and empowerment obtain can the fully beneficial results of QOL inputs be achieved. In the absence of social and ideological structures to support women’s
autonomy, women are often unable to take advantage of inputs. Thus under-utilization of some rural health facilities by women in India is the result not of lack of inputs, but of a lack of gender equality that suggests women are less deserving of health care than others (Anon., 1997). Similarly, rural girls and women are malnourished in some Asian nations because they are the last in line for food in families (Riley, 1977), revealing an underlying gender discrimination that is unlikely to be eradicated by providing more calories to families (although it certainly may mean an improvement).

Closing the gender gap in QOL outcomes and gender equity are linked. Increasing gender equity is important in order to make the process of development more sustainable. In many countries, social investments in men and women produce different overall returns because of the way gender structures family and social life. For example, because women are almost universally the primary providers of child care, increasing women’s access to health care and education tends to have a bigger social multiplier than similar investments in men, because better-educated and healthier mothers have a huge impact on their children.

CONCLUSION

This chapter has focused on three specific institutions that influence QOL: civil society, human rights, and gender. Not only are these crucial for producing positive QOL outcomes, but there is an emerging international consensus that they represent the next frontier of essential policy interventions for ensuring QOL. They also highlight specific lessons about the more general role that institutions play in the determination of QOL. The relationship between institutions and QOL is complex and interactive. Institutions influence QOL directly; highly inegalitarian gender relations, for example, will tend to produce poorer QOL outcomes for women. Institutions also influence each other as in the case of a strong, participative
The Importance of Institutions

civil society that forces state institutions to be responsive to citizens’ needs in ways that improve QOL. Finally, there is an indirect institutional path to QOL: institutions can influence QOL through their role in the policy process. Here they may act as a limit, conscious or not, on policymakers since they help shape the goals and means chosen to achieve them. They affect policy design and can have a pivotal impact on implementation.

However, the process of influence runs two ways. Institutions change over time—they need, and are subject to, constant renewal. Policymakers are not passive actors, wholly constrained by the institutional structure they face. Rather, they can undertake policies that go deep and attempt institutional change. This examination of gender illustrates the importance of changing institutional structures and the possibilities for doing so through changes in policies and QOL. QOL improvements may influence institutionalized views of gender and shift them in a more egalitarian direction, which may produce further progress. Such shifts occur only slowly and usually at different speeds. However, by concentrating on the dynamic interplay between policy and institutions, policymakers have a better chance of creating the virtuous institutions that are essential for sustainable development in the long run. The next chapter looks at specific policy tools and instruments that policymakers can use to institute this type of change.
This chapter investigates promising policy strategies and specific program initiatives to improve QOL in rural Asia. Policymakers need to keep three general strategic considerations in mind.

- The requirement for a coordinated and balanced policy portfolio: one-dimensional policy approaches are unlikely to improve QOL sustainably. Policymakers should seek to initiate virtuous spirals of QOL development, using policy to ensure that successes in one area feed quickly into others.

- The importance of implementation: only rarely does the policy design process adequately anticipate the harsh and unforgiving realities of the field. Many policy proposals appear well targeted, but ultimately prove to be horrendously wasteful, with program benefits scattered widely among those least in need. Capacity building, as well as partnership with NGOs, existing local networks, and the private sector, are essential for effective implementation.

- The need for policy to be conceptually sound: policy design must be based on a clear understanding of underlying mechanisms, such as institutional strength or weakness, gender, or connections of rural areas to urban and global economies. Unintended consequences are a feature of many well-intentioned policies. Environments also vary greatly over time and from place to place. So while good practice from one country
is a useful guide for policymakers, it should not be assumed that applying the policy to another development setting will necessarily have the same consequences.

There are an enormous number of policies and programs that could promote rural QOL. Strengthening mechanisms of good governance, creating rational policies of urban development from which rural migrants could benefit, expanding and improving agricultural extension programs, and providing scholarships and incentives for girls’ schooling are just a few of many. Six specific areas are examined in depth: income generation, infrastructure, energy, social service provision, microfinance, and land reform.

INCOME GENERATION

Income is the single most important correlate of QOL. It is strongly associated with direct improvements to QOL, but also enables positive feedback from QOL components such as education, gender equality, nutrition, and health. Much is known about the factors that enable income and economic growth. Liberal policies regarding trade and capital mobility, good governance, properly valued exchange rates, absence of fiscal deficits, proper supervision of the banking system, public investment in infrastructure, and adoption of appropriate policies to overcome market failures are all growth-enhancing public policies and functions. So, too, are investments in health, education, and family planning.

The Income–QOL Relationship

Table V.1 shows parameter estimates from least-squares regressions based on the analytical framework described earlier. These regressions relate per capita GDP to several QOL
indicators using cross-country data, and incorporate rural–urban disparities by including the rural share of the country’s population. It is clear from these results that income is inseparably linked to QOL. There is a statistically significant relationship between levels of income and indicators of health, education, nutrition, poverty, fertility, and governance, with effects that are bidirectional.

The links between income and other facets of QOL such as education and health depend on both their consumption and investment aspects. Income offers direct and immediate benefits; education and health care offer benefits in the future. Accordingly, the higher the returns to human capital, the more of their increased money people are likely to spend. Dynamic labor markets, credit opportunities, and an entrepreneurial culture will all contribute to the development of human capital, as will gender equality, which increases opportunity for half the population.

Policies that are intended to improve rural incomes must pay particular attention to the primarily agricultural nature of rural economies. Raising agricultural productivity is a key factor in income growth, rural poverty alleviation, and human development in Asia. The development of new technologies is critical, as evidenced by the green revolution, and these efforts should be nurtured by governments and donor agencies. Measures are also necessary to encourage the adoption and efficient use of new technologies. The dissemination of information and the availability of credit are important, as is the development of insurance markets to protect against the higher risk associated with many new technologies.

Rural areas are heavily dependent on urban economies, both to absorb excess labor and for remittances. A rapidly developing industrial sector will raise rural incomes through increased remittances and by decreasing the rural labor force, thereby placing upward pressure on rural wages. Effective macroeconomic policies are central to developing the industrial and manufacturing sectors, and failure of such policies, as for example in the case of the regional financial and economic crisis, can have a high cost for rural inhabitants.
Table V.1: The Effect of Income on Quality of Life Indicators. OLS Regression Coefficients Based on a Cross-country Sample

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Constant</th>
<th>Log GDP per Capita (PPP)</th>
<th>Rural Share</th>
<th>NonAsia Dummy</th>
<th>R²</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INCOME</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population Below $1/day (%)</td>
<td>88.484*</td>
<td>−12.208**</td>
<td>0.435**</td>
<td>12.507*</td>
<td>0.50</td>
<td>54</td>
</tr>
<tr>
<td>Population Below $2/day (%)</td>
<td>128.537</td>
<td>−14.129**</td>
<td>0.562**</td>
<td>5.161</td>
<td>0.56</td>
<td>54</td>
</tr>
<tr>
<td><strong>EDUCATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary Enrollment 1994 (% gross)</td>
<td>29.295</td>
<td>8.766**</td>
<td>0.009</td>
<td>−10.617**</td>
<td>0.22</td>
<td>121</td>
</tr>
<tr>
<td>Secondary Enrollment 1993 (% gross)</td>
<td>−45.880</td>
<td>16.739**</td>
<td>−0.507**</td>
<td>−1.149*</td>
<td>0.63</td>
<td>119</td>
</tr>
<tr>
<td>Literacy Rate (% people, 15+)</td>
<td>11.662</td>
<td>9.987**</td>
<td>−0.238**</td>
<td>−6.307*</td>
<td>0.46</td>
<td>167</td>
</tr>
<tr>
<td><strong>HEALTH</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Expectancy at Birth</td>
<td>13.889**</td>
<td>6.828**</td>
<td>−0.071**</td>
<td>−2.216*</td>
<td>0.72</td>
<td>165</td>
</tr>
<tr>
<td>Infant Mortality Rate (per 1,000 live births)</td>
<td>225.275**</td>
<td>−23.692**</td>
<td>0.269**</td>
<td>3.777</td>
<td>0.65</td>
<td>167</td>
</tr>
<tr>
<td>Maternal Mortality Rate 1980–1988 (per 100,000 live births)</td>
<td>1432.069**</td>
<td>−161.043**</td>
<td>2.917*</td>
<td>39.732</td>
<td>0.53</td>
<td>100</td>
</tr>
<tr>
<td><strong>NUTRITION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calories Available per Capita 1987–1989 (% need)</td>
<td>20.811</td>
<td>11.655**</td>
<td>−0.083</td>
<td>−1.665</td>
<td>0.54</td>
<td>102</td>
</tr>
<tr>
<td>Wasting 1980–1989 (% children age 12-23 months)</td>
<td>−0.435</td>
<td>0.187</td>
<td>0.107**</td>
<td>−1.228</td>
<td>0.29</td>
<td>61</td>
</tr>
<tr>
<td>Stunting 1980–1989 (% children age 24–59 months)</td>
<td>117.729**</td>
<td>−9.977**</td>
<td>0.070</td>
<td>−14.499**</td>
<td>0.57</td>
<td>62</td>
</tr>
<tr>
<td><strong>FERTILITY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Fertility Rate</td>
<td>9.216**</td>
<td>−0.853**</td>
<td>0.018**</td>
<td>0.636**</td>
<td>0.53</td>
<td>167</td>
</tr>
<tr>
<td>Contraceptive Prevalence Rate</td>
<td>−77.454**</td>
<td>16.240**</td>
<td>−0.069</td>
<td>−10.104**</td>
<td>0.60</td>
<td>122</td>
</tr>
</tbody>
</table>

(continued next page)
While raising rural incomes through broad-based economic policies is perhaps the most effective way to improve QOL for the largest numbers of people, this may not sufficiently improve the lot of the worst-off members of rural societies. Over and above efforts to raise general incomes, it may be necessary to develop policies targeted specifically at the poor. The next section discusses strategies for poverty alleviation, a central goal of any attempt to improve QOL of those who need it most.

### Poverty Alleviation

The single most important force contributing to the alleviation of rural poverty is economic growth. Analyses of data for 68 countries worldwide from the 1960s to the 1990s reveal that income growth per capita is an exceedingly powerful predictor of poverty reduction. Across countries, percentage increases in income per capita translate into equal percentage increases in income per capita of the lowest quintile...
of the income distribution (Gallup et al., 1998). Even more striking is the finding that this same result holds true when estimating the average within-country effect of overall income increases on income received by the lowest quintile. Each 1 percent of growth in GDP per capita translates into 1.1 percent growth in income per capita among the poorest quintile. The results persist when the analysis is modified to evaluate the effect of income growth on the rural poor. Regression analysis that controls for the share of a country’s population that is rural shows that a 1 percent increase in national per capita GDP leads to a 1.7 percent increase in the incomes of the poorest quintile.

While economic growth is the most effective way to reduce poverty, the benefits do not reach everybody, and having safety nets in place for those still trapped in indigence is important. Governments have attempted various poverty alleviation schemes to provide relief to those most in need. These include such programs as employment guarantee schemes, whereby the poor are employed in infrastructure development projects, or nutrition subsidy programs, whereby the government subsidizes the cost of food and fuel for the poor.

One of the main problems such schemes face is the difficulty of targeting the poor effectively. All poverty alleviation programs suffer from some amount of leakage, that is, some benefits flow to people who are not poor, which can make such programs expensive to run. Poverty alleviation programs must either be self-targeting, or require some form of external targeting whereby the government identifies who will qualify for benefits based on income or similar criteria. The latter approach is likely to have far greater leakage, because information on incomes is costly for the government to acquire, enforcement is difficult, and incentives for corruption and cooption are high. Designing programs in which the incentive structures favor self-selection is more efficient.

Employment guarantee schemes have generally been an effective approach to poverty alleviation. They provide rural infrastructure as well as income to the poor. If wages are slightly lower than other options, then the program is effectively self-
targeting. Food-for-work programs are a variant of employment guarantee schemes, and while they have also proved to be an effective method of self-targeting, the added administrative costs for managing the food supplies generally make them an inefficient option.

Free meals for primary school children are expensive, but highly effective. While governments often subsidize education, particularly primary education, the costs of sending children to school can represent a significant burden to poor families because of such factors as transportation and opportunity costs. The provision of a free meal can offset some of the costs for poor parents, thereby increasing their incentives to educate their children. Adequate nutrition is also essential to educational attainment. Quite simply, hungry children do not fulfil their potential in school. Those evaluating the costs of these programs for governments must take long-term poverty reduction benefits into account (World Bank, 1998c).

Poverty is closely linked to landlessness, caste, ethnicity, and gender, and poor people are often trapped by low rates of literacy, high indebtedness, low social status, and limited political control. Poverty reduction requires empowerment of the poor, as well as measures to increase income.

Empowerment is not a neutral process and is likely to face significant resistance. A catalyst is often needed to break this resistance, such as the knowledge brought by education, or the introduction of an external group such as an NGO. For example, the microcredit loans the Grameen Bank has provided to rural women in Bangladesh have not only enabled them to increase their incomes, but have also given them a greater voice. They are now less willing to be exploited by money-lenders, landlords, or even their own family members, and are further enabled to take control of resources. These are benefits that simple wealth transfers could not achieve. The Self-Employed Women’s Association, started in Gujarat, India, provides another example. It acts as a trade union for women working in the informal sector, helping uneducated women who face severe exploitation from entrepreneurs. By organizing themselves into a union, the women have succeeded in putting
an end to this exploitation, not only raising their incomes, but also creating a sense of control over their lives and livelihoods.

The NGO community has long been at the forefront of developing creative approaches to enhance the empowerment process. Through education programs, advocacy, consciousness raising, and community organization they have provided numerous examples of how civil society can work to bring together the poor and dispossessed to fight for their rights and to break free of the cycle of poverty. However, while NGOs are often the major catalyst in the empowerment process, their work tends to be carried out on a small scale and is not always easily replicable. National governments, by contrast, can affect outcomes on a much larger scale. While the nature of government bureaucracy does not naturally lend itself to the process of empowering people, governments should create a supportive environment for such a process. By understanding the need to increase the voice of the poor, national governments can work together with civil society to improve the effectiveness of poverty alleviation in rural Asia.

INFRASTRUCTURE

The importance of infrastructure was discussed in Chapter III, where qualitative data showed that many rural inhabitants view the provision of infrastructure as a central factor in improving their lives. Infrastructure can be classified into two categories: economic and social. Economic infrastructure includes long-term structures that are used either by households or in economic production, and the services that such structures provide. Examples include public utilities such as electricity and telecommunications systems, public works such as roads, and essential elements of other transport sectors including railways and airports. Social infrastructure is composed of institutions such as schools, universities, and health-care facilities (World Bank, 1994).
This section focuses on rural economic infrastructure; the next looks at energy, which is related to infrastructure. Subsequent sections explore the provision of social infrastructure and services.

**Urban versus Rural Infrastructure**

An assessment of current infrastructure stocks and a comparison of urban and rural coverage can provide a good understanding of the effect of infrastructure on QOL in rural areas. As described in Chapter III, different countries define rural areas differently, and comprehensive infrastructure data for rural areas are available only for water supply (World Bank, 1998d). In general, reliance here is placed on national infrastructure stocks, which serve as reasonable proxies for rural infrastructure when coupled with data on the rural share of the population.

The difference in the water supply between urban and rural areas is illustrative of the disparity in infrastructure development. In 1998, the average water supply availability in urban areas for 12 Asian countries reached almost 72 percent, whereas in rural areas it reached only 54 percent. Were more data available, other elements of infrastructure would reflect even greater disparities in access, even when quantities are comparable. For example, a few urban roads service great numbers of people; rural roads provide access to fewer people due to the lower population density.

The urban–rural disparity is further reflected by Figure V.1, which shows the relationship between rural population share and paved roads per 1,000 people for a cross-section of Asian countries and time periods. Countries with a greater rural population have fewer kilometers of paved roads, implying a paucity of coverage for rural populations.

Even after controlling for the expected growth of infrastructure over time, the same pattern of less infrastructure corresponding to higher rural share is consistent across a large sample of Asian countries for several kinds of infrastructure.
Figure V.1: Relationship between infrastructure and rural share of population

(Table V.2). Table V.2 includes six measures: length of roads, length of paved roads, length of rail lines, number of telephones, number of telephone main lines, and electrical generating capacity. For every measure of infrastructure except railroad lines, a higher percentage of the population in the rural sector indicates a lower stock of infrastructure. The apparent opposite effect from length of railroad lines is statistically insignificant and only shows up when the measure of railroad lines is normalized by population. Almost all of the negative relationships are statistically significant at the 99-percent level, with the exceptions of length of roads (normalized by population) and length of railroad lines (normalized by land area). Despite the few exceptions, the overwhelming pattern is that a higher rural population implies less infrastructure.

The strongest negative correlations between rural population share and infrastructure were for telephones and telephone main lines. The stock of each decreases between 5 and 7 percent for every additional 1 percent of the population living in rural areas. Such a strong negative correlation is logical.
Table V.2: The Effect of Rural Share on Infrastructure in Asia, Controlling for Time and Normalized by Land Area

<table>
<thead>
<tr>
<th>Measure</th>
<th>Roads</th>
<th>Paved Roads</th>
<th>Rail Line Length</th>
<th>Telephone Main Lines</th>
<th>Electrical Generating Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Share</td>
<td>−0.025***</td>
<td>−0.052***</td>
<td>−0.008*</td>
<td>−0.071***</td>
<td>−0.066***</td>
</tr>
<tr>
<td>Dummy 1965</td>
<td>−0.767***</td>
<td>−0.967***</td>
<td>−0.060</td>
<td>−1.641***</td>
<td>−1.816***</td>
</tr>
<tr>
<td>Dummy 1970</td>
<td>−0.580***</td>
<td>−0.806***</td>
<td>0.003</td>
<td>−1.290***</td>
<td>−1.383***</td>
</tr>
<tr>
<td>Dummy 1975</td>
<td>−0.481***</td>
<td>−0.429**</td>
<td>0.021</td>
<td>−0.945***</td>
<td>−0.961***</td>
</tr>
<tr>
<td>Dummy 1980</td>
<td>−0.279**</td>
<td>−0.277*</td>
<td>−0.010</td>
<td>−0.463***</td>
<td>−0.577***</td>
</tr>
<tr>
<td>Dummy 1985</td>
<td>−0.102</td>
<td>−0.181</td>
<td>0.044</td>
<td>−0.173*</td>
<td>−0.249***</td>
</tr>
<tr>
<td>Constant</td>
<td>1.887***</td>
<td>2.559***</td>
<td>−2.240***</td>
<td>6.959***</td>
<td>6.486***</td>
</tr>
<tr>
<td>R²</td>
<td>0.34</td>
<td>0.48</td>
<td>0.01</td>
<td>0.64</td>
<td>0.64</td>
</tr>
<tr>
<td>N</td>
<td>128</td>
<td>124</td>
<td>109</td>
<td>154</td>
<td>158</td>
</tr>
</tbody>
</table>

Normalized by Population

<table>
<thead>
<tr>
<th>Measure</th>
<th>Roads</th>
<th>Paved Roads</th>
<th>Rail Line Length</th>
<th>Telephone Main Lines</th>
<th>Electrical Generating Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Share</td>
<td>−0.009</td>
<td>−0.031***</td>
<td>0.001</td>
<td>−0.061***</td>
<td>−0.055***</td>
</tr>
<tr>
<td>Dummy 1965</td>
<td>−0.315**</td>
<td>−0.625***</td>
<td>0.460***</td>
<td>−0.896***</td>
<td>−1.389***</td>
</tr>
<tr>
<td>Dummy 1970</td>
<td>−0.225*</td>
<td>−0.555***</td>
<td>0.415***</td>
<td>−0.636***</td>
<td>−1.076***</td>
</tr>
<tr>
<td>Dummy 1975</td>
<td>−0.223*</td>
<td>−0.266</td>
<td>0.326***</td>
<td>−0.421**</td>
<td>−0.770***</td>
</tr>
<tr>
<td>Dummy 1980</td>
<td>−0.106</td>
<td>−0.183</td>
<td>0.196***</td>
<td>−0.134</td>
<td>−0.505***</td>
</tr>
<tr>
<td>Dummy 1985</td>
<td>0.011</td>
<td>−0.121</td>
<td>0.153***</td>
<td>0.027</td>
<td>−0.292***</td>
</tr>
<tr>
<td>Constant</td>
<td>0.935***</td>
<td>1.496***</td>
<td>−2.704***</td>
<td>6.361***</td>
<td>6.106***</td>
</tr>
<tr>
<td>R²</td>
<td>0.32</td>
<td>0.32</td>
<td>0.04</td>
<td>0.82</td>
<td>0.88</td>
</tr>
<tr>
<td>N</td>
<td>133</td>
<td>125</td>
<td>118</td>
<td>161</td>
<td>187</td>
</tr>
</tbody>
</table>

* Significant at 10% level  ** Significant at 5% level  *** Significant at 1% level
because establishing telephones and telephone lines in rural areas is costly due to the long distances to be covered, although mobile telephones are changing this dynamic to a certain extent.

Lengths of rail lines and roads (paved and unpaved) have the weakest negative correlations with the rural share of the population. This is partly explained by the fact that roads and railways are a necessary prerequisite for the construction of telephone and power lines. (Likewise, dirt or gravel roads usually precede paved roads.) Thus, many rural areas that still have no telephone or power access do have road or railway access. Despite the lesser magnitude of the correlations, they are still highly significant.

Asia’s stock of infrastructure falls in the middle of that in the developing world in general. Asia has, on average, more infrastructure than sub-Saharan Africa and less than Latin America and the Caribbean (Table V.3). (The low number for Asia’s telephones per 1,000 people is probably due to the smaller sample than was used in Table V.4.)

However, using regressions to control for the share of rural population (Table V.2), it becomes evident that a disproportionate amount of Asia’s infrastructure is focused in its cities. The rural populations are even worse-off than those in sub-Saharan Africa. The lower level of infrastructure in rural Asia versus rural Africa is statistically significant for railways, telephones, telephone main lines, and energy-generating capacity, with the last showing the greatest difference. An additional 1 percent of rural population in Asia implies greater than 4 percent less energy-generating capacity than the same additional population implies in sub-Saharan Africa.

**Infrastructure Changes Over Time**

As would be expected, infrastructure in Asia has improved over time. Table V.4 shows average infrastructure per 1,000 people in 1965 and 1990 for a cross-section of Asian countries. The most dramatic increases have been in telephone infrastructure. However, most telephone improvements have
occurred in urban areas, implied by the strong negative correlation between telephone infrastructure and rural population.

Road and railway growth has taken place to a greater extent in rural areas, as shown by the less negative correlations between the rural population share and these infrastructure measures (Table V.5). It is worth noting that the negative growth in railway infrastructure reflects that railways are growing more slowly than the population, not that they are decreasing in an absolute sense.
Growth rates in infrastructure in more recent years are much lower than growth rates from 1965 to 1990. This points to an alarming slowdown in infrastructure growth that will affect the future QOL in rural Asia. The relatively low levels of some kinds of infrastructure development in rural Asia still permit large gains to be made from future development.

### Policies for Infrastructure Development and Investment

Despite the potential gains that infrastructure represents for development and improved QOL, infrastructure investments often fail to realize expected benefits. Maintenance is a key problem. According to the World Road Association and the UK Department for International Development (1999), for example, sub-Saharan Africa has lost one third of its US$150 billion investment in roads due to inadequate maintenance. An analysis of 85 countries shows that spending US$12 billion on maintenance would have saved US$40 billion in reconstruction costs.

This chapter focuses on a number of policy trends and options that attempt to address the problems. First, more attention is being given to augmenting community provision, as well as stakeholder involvement. Second, there is an increasing focus on how to involve the private sector in providing and financing infrastructure. Third, the continued

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### Table V.5: Correlations Between Rural Share of Population and Selected Measures of Infrastructure per 1,000 Population

<table>
<thead>
<tr>
<th>Infrastructure Measure</th>
<th>Rural Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kilometers of Rail Lines</td>
<td>−0.23</td>
</tr>
<tr>
<td>Kilometers of Paved Roads</td>
<td>−0.46</td>
</tr>
<tr>
<td>Total Kilometers of Roads</td>
<td>−0.25</td>
</tr>
<tr>
<td>Kilowatts of Energy-generating Capacity</td>
<td>−0.63</td>
</tr>
<tr>
<td>Number of Telephone Main Lines</td>
<td>−0.68</td>
</tr>
<tr>
<td>Number of Telephones</td>
<td>−0.66</td>
</tr>
</tbody>
</table>
role of central governments may be important in supplying infrastructure.

Communities have become increasingly involved in the establishment of infrastructure, sometimes playing an administrative and financial as well as a labor role. The Republic of Korea’s Saemaul Undong program has helped villagers build more than 50,000 kilometers of roads in the past 30 years. The village of Purang, Nepal, established its own power plant, which was planned, owned, operated, and maintained by the community, in this case even without external funding. Communities in the Banglung district of Nepal constructed 62 suspension bridges with local materials and labor, supported by only US$50,000 from the government (World Bank, 1994).

One way in which governments can promote more efficiently the development of infrastructure is by opening opportunities to the private sector. Sometimes this is even a necessity, because the investment needs involved in infrastructure may exceed what many developing-country governments can provide (Malhotra, 1997). Participation of the private sector has risen enormously in the past decade, with foreign investments in financing infrastructure projects for developing nations growing from only US$100 million in 1998 to US$20.3 billion in 1996 (Thobani, 1999). It is expected that private-sector investment will account for about 15 percent of infrastructure spending in developing countries by the year 2000 (Anayiotos, 1994). Power is the most important sector to attract private finance, followed by telecommunications and transportation (Dailami and Klein, 1997).

In addition to private finance, infrastructure has been a major focus of development assistance and loans. For example, 31 percent of the World Bank’s loans in 1996 and 25 percent of aid from the Organisation for Economic Co-operation and Development went to finance infrastructure projects (ODI, 1998). In some regions these figures have been higher, as in Africa where 40 percent of World Bank loans in the past 30 years have gone to transportation, communications, water, and power (Farah, 1998).
Despite the rapid increase of private investment in infrastructure, the overall rise has been lower than the increase of private capital flows to developing regions in general. According to Dailami and Klein (1997), this is the result of political pressure to keep prices of infrastructure goods such as electricity or water below the cost of producing them, and because the typical time horizon of infrastructure investments is long, 10 to 30 years. During this time investors are exposed to huge risks, including currency fluctuations and the ability of governments to sustain the original conditions of contracts (Dailami and Klein, 1997).

High risks and sparse population mean that many rural sectors will never have a sufficiently dense population to attract such investment. An immediate way the residents of sparsely populated rural areas can gain the benefits of a growing infrastructure is through government assistance. Assistance does not mean, however, that no cost recovery is possible. Often there is far greater willingness to pay for infrastructure services in rural areas than is assumed. Armed with the appropriate projections, governments may be even more willing to undertake the task of providing infrastructure. Here again, partnerships with NGOs and user groups can be mutually beneficial. When beneficiaries have a greater voice in the design and implementation of infrastructure projects, their ultimate satisfaction, willingness to pay, and willingness to maintain it will increase. Such collaboration creates a win-win situation for rural consumers and the government. Consumers are more satisfied, and the government has more sustainable programs at a lower cost.

Because of the relatively low level of infrastructure in much of the Asian rural sector, developing roads, telephones, and electricity will allow great gains to be captured through higher economic activity, better health, and higher levels of education. Governments will see returns on their investments in the QOL of their rural citizens and in the activity of the national economy.
ENERGY

Energy use has an enormous impact on rural populations and their QOL. Patterns of energy use in rural areas have important observable effects on QOL. Indoor pollution is a critical problem, while the difficulty of obtaining fuel has negative consequences in terms of both time loss and the environment. Generally, the lack of modern energy sources also detracts from rural areas’ ability to develop economically. This section focuses on rural Asia’s reliance on fuel wood and other forms of biomass, which has created an energy-poverty trap for many rural Asians. Policies to help people escape from this poverty trap are then discussed.

Patterns of Energy Use in Rural Areas

Reliance on biomass is greater among countries with lower incomes, with more unequal income distributions, with relatively large rural populations, and with more forest cover per person. Figure V.2 shows the proportion of traditional fuel use in specific Asian countries, and Figure V.3 shows the ratio of traditional to total fuel use versus the rural share of the population. In Asia, the average share of traditional fuel in total energy consumption is 56 percent in countries with a 1993 GNP per capita less than US$2,000, but only 2 percent in countries with a GNP per capita above US$7,000.

Various forms of energy can be conceived on an energy ladder, with each rung corresponding to the dominant fuel used by successive income groups (Hosier and Dowd, 1987; Reddy and Reddy, 1994). Wood, dung, and other biomass represent the lowest rung on the energy ladder, with charcoal

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15 Parts of this section draw on David Bloom, John Gallup, and David Beede, “Energy and Poverty” unpublished manuscript, 1997.
and coal, kerosene, LPG (propane), and electricity representing successively higher rungs. Income appears to be the main characteristic that influences a household’s choice of energy carrier (Leach, 1992; Reddy and Reddy, 1994). Relevant attributes of the energy carriers include accessibility, convenience, controllability, cleanliness, efficiency, current cost, and the expected distribution of future costs. Both poor countries and the poor within countries are disproportionately positioned on the lowest rung, where fuels are less efficient and less clean.

Because different fuels require different appliances—stoves, lamps, etc.—each with its own range of costs and rates of depreciation, fuel costs have both fixed and variable components. The importance of this distinction is magnified by the presence of quasi-fixed costs, such as fixed monthly charges for a natural gas or electricity hookup; by the need to make large, ‘lumpy’ purchases of some fuels, such as LPG; and by the need to make sometimes sizable security deposits to guarantee either the payment of monthly bills or the return of equipment such as LPG canisters. Despite the fact that they are refundable, security deposits impose a cost on households,
the magnitude of which depends upon the return on those funds in their next best use (that is, their opportunity cost).

In rural areas in particular, economies of scale hamper the distribution of energy. It is often not economically viable to connect regions of low population density to a national electric grid, particularly when, as in the case of most rural areas, the per capita use of electricity would be low and likely to remain so for some time. Similarly, suppliers must charge
more to deliver LPG canisters to rural areas, both because of the relatively low density of customers and because delivery routes are long.

The proportions of fixed, quasi-fixed, and variable costs affect household decisions about fuel choice, depending upon the rate at which a household discounts future benefits, which may be determined in part by the household’s level of wealth and its liquidity. For example, households that apply high discount rates to fuel consumption decisions, because of the high cost either of diverting resources from other uses or of borrowing funds to cover up-front capital costs, will tend to prefer fuel carriers that involve lower up-front and periodic costs. (See Reddy and Reddy, 1994, for evidence that the poor behave as if they have higher discount rates than the rich when making energy-carrier decisions.) Fuel costs may be determined either in a market or implicitly in terms of the opportunity cost of time spent gathering the fuel (for instance, firewood).

Table V.6 shows the different energy-use patterns of rural and urban residences in Pakistan and Viet Nam. The data were collected in the early 1990s as part of the World Bank’s Living Standards Measurement Survey (LSMS), which include information on a range of measures of household structure, activities, and well-being. As the surveys analyzed here included detailed questions on the sources and uses of energy, as well as a variety of poverty indicators, they are ideally suited to addressing many of the central issues in this study. The Viet Nam sample includes 4,800 households, while the Pakistan sample includes 4,798 households. Table V.6 shows that people in rural areas are far more likely to use biomass for most energy end-uses than are urban dwellers, and that they are more likely to use kerosene than electricity for lighting, while the reverse is true in the cities. The energy ladder is clearer in urban areas than in rural, primarily because such a large proportion of rural energy use centers on biomass.

According to the same data, rural households in Pakistan devote 9 percent of their total expenditures to fuel, compared to 13 percent in urban households. This difference reflects the fact that rural residents, who tend to be poorer than urban
Table V.6: Energy Use by Household Activity and Rural/Urban Residence, Pakistan and Viet Nam

<table>
<thead>
<tr>
<th>Fuel and Uses</th>
<th>Pakistan</th>
<th></th>
<th>Viet Nam</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Rural Households Using</td>
<td>% Urban Households Using</td>
<td>% Rural Households Using</td>
<td>% Urban Households Using</td>
</tr>
<tr>
<td>Cooking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Gas (LPG)</td>
<td>5</td>
<td>46</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kerosene</td>
<td>9</td>
<td>26</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Charcoal and Coal</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>29</td>
</tr>
<tr>
<td>Biomass, incl. Wood</td>
<td>94</td>
<td>48</td>
<td>55</td>
<td>51 (wood)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>41</td>
<td>71 (other biomass)</td>
</tr>
<tr>
<td>Space Heating</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Gas (Natural and LPG)</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Kerosene</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Biomass Fuels</td>
<td>30</td>
<td>11</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Water Heating</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Gas (Natural and LPG)</td>
<td>2</td>
<td>31</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Kerosene</td>
<td>2</td>
<td>8</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Biomass Fuels</td>
<td>34</td>
<td>17</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Lighting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>59</td>
<td>93</td>
<td>39</td>
<td>88</td>
</tr>
<tr>
<td>Kerosene</td>
<td>85</td>
<td>40</td>
<td>59</td>
<td>12</td>
</tr>
</tbody>
</table>

Notes: Biomass for Pakistan data is wood, dung, wheat straw, coconut shell, cotton sticks, rice straw, rice hull, corn husk, bagasse, tobacco husk, and other biomass. Sources: 1991 Pakistan LSMS. Biomass for Viet Nam data is wood, leaves, rubbish, sawdust, straw or thatch. 1992–1993 Viet Nam LSMS. Figures can sum to more than 100% because an individual household may use more than one type of energy source for a given application.

dwellers, use energy primarily for cooking, whereas urban residents use it for cooking and to some extent for water heating, space heating, and lighting. The cost estimate for rural households is, however, understated because people in rural areas devote a larger portion of their most important asset, their time, to the production of energy services. For example, these same rural households devote nearly 200 more hours per year to the collection of biomass than do urban households.

In a study of cooking fuel costs in Pakistan, Bloom, Gallup, and Beede (1997) found that, although electricity is
more expensive than LPG, kerosene or wood in terms of cost per unit of energy, it is potentially the least costly when the efficiency of the relevant stoves is accounted for. In effect, these authors argue, rural people who tend to use wood actually pay more for usable energy than urbanites. As energy is a significant household expenditure, energy expenditure detracts significantly from households’ ability to satisfy their basic needs for food, shelter, clothing, health, and education. Thus, shifts to the use of less-expensive energy sources hold considerable potential to improve QOL in all of its key dimensions.

Is There an Energy–Demography–Poverty Trap?

The use of biomass as a source of energy is detrimental to the health of household members and diminishes their ability to work productively, with women, girls, very young children, and those in cold climates suffering most, as they spend most time indoors. Most studies show a positive correlation between indoor pollution generated by the use of traditional fuels and the incidence of respiratory illness or congestive heart failure (see Smith, 1987, for a thorough review; see also Mumford et al., 1987; Chen et al., 1990; van Horen et al., 1993; Sims, 1994 for recent studies) although a few (Ellegard and Egneus, 1993) have failed to find a connection.

It is hypothesized that use of traditional fuels is directly linked to demographic and health outcomes. Burning biomass in a poorly ventilated area may significantly harm many individuals’ health, reducing life expectancy in a group of people. Unhealthy people, in turn, typically have less capacity to work sufficiently to earn income. Because they earn less than they would if they were healthy, they continue to have very restricted access to health services and education, and die disproportionately young. So, too, do their children, who are especially vulnerable to indoor pollution. Dependence on children for labor (including gathering of wood and dung, formation of dung paddies, etc.) and for old-age security leads people to continue to bear children at high rates. Aversion to
the risk of infant and child death means that fertility behavior more than compensates for expected mortality, resulting in higher rates of population growth. When women have more children, both the women and the children tend to have worse health, more of the children die, and the status of women continues to stagnate.

To study these possible links, the association between the use of traditional fuels and a set of demographic and health indicators was examined using cross-country data. The sample consisted of all 108 countries in the world for which the requisite data were available (Table V.7). In order to control for nonenergy differences that potentially could confound the estimates, income is included in the analysis. This is done in a very flexible way, allowing the effect of income on demographics to be highly nonlinear, so as to impose a minimal degree of structure on the data and, therefore, on the results.

A strong association was found between a broad array of demographic indicators and the ratio of traditional fuel use to total fuel use. In particular, the effects of traditional fuel use on infant and child mortality rates are positive, statistically significant, and sizable. Moreover, the magnitude of the effects is comparable for infants and children. Strikingly, although traditional fuel use has a positive effect on the crude death rate, it is not statistically significant and is smaller in magnitude than the effects on infant and child mortality. This result is consistent with the view that deleterious consequences of indoor air pollution are disproportionately experienced by children, who are physiologically most vulnerable to its effects. It is also striking that the statistically significant negative effect of traditional fuel use on life expectancy is larger for females than for males, providing evidence of QOL-reducing gender inequality in households that rely on use of biomass in traditional ways.

The results in Table V.7 also reveal that fertility—both the total fertility rate and the crude birth rate—is positively and significantly associated with traditional fuel use. In addition, the magnitudes of these fertility effects are quite sizable. A 40 percent increase in traditional fuel use (which corresponds, for example, to the difference in traditional fuel
Table V.7: Relationship between Demography and Traditional Fuel Use.  
OLS Regression Coefficients Based on a Cross-country Sample

<table>
<thead>
<tr>
<th></th>
<th>Constant</th>
<th>Percent Traditional Fuel Use</th>
<th>Log GNP per Capita</th>
<th>Inverse Log GNP per Capita</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Death Rate</td>
<td>-227.919**</td>
<td>0.007</td>
<td>13.247**</td>
<td>1044.726**</td>
<td>0.54</td>
</tr>
<tr>
<td>Infant Mortality Rate</td>
<td>-795.305**</td>
<td>0.247**</td>
<td>37.945**</td>
<td>4203.384**</td>
<td>0.83</td>
</tr>
<tr>
<td>Under-5 Mortality Rate</td>
<td>-1377.804**</td>
<td>0.494**</td>
<td>67.613**</td>
<td>7066.313**</td>
<td>0.82</td>
</tr>
<tr>
<td>Life Expectancy</td>
<td>213.215**</td>
<td>-0.088**</td>
<td>-5.453*</td>
<td>-816.024**</td>
<td>0.86</td>
</tr>
<tr>
<td>Male Life Expectancy</td>
<td>195.649**</td>
<td>-0.076**</td>
<td>-4.708</td>
<td>746.366**</td>
<td>0.84</td>
</tr>
<tr>
<td>Female Life Expectancy</td>
<td>231.647**</td>
<td>-0.102**</td>
<td>-6.234*</td>
<td>-889.108**</td>
<td>0.86</td>
</tr>
<tr>
<td>Life Expectancy Gap (F-M)</td>
<td>35.998</td>
<td>-0.026**</td>
<td>-1.526</td>
<td>-142.741</td>
<td>0.35</td>
</tr>
<tr>
<td>Crude Birth Rate</td>
<td>66.412</td>
<td>0.176**</td>
<td>-5.336</td>
<td>-6.581</td>
<td>0.77</td>
</tr>
<tr>
<td>Total Fertility Rate</td>
<td>-0.011</td>
<td>0.025**</td>
<td>-0.213</td>
<td>37.326</td>
<td>0.78</td>
</tr>
<tr>
<td>Population Growth Rate</td>
<td>3.031</td>
<td>0.021**</td>
<td>-0.184</td>
<td>-3.546</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Note: ** indicates significance at the 5% level, * indicates significance at the 10% level. The number of countries is 108 in all regressions. Data from 1993 and surrounding years. Traditional Fuel includes fuelwood, bagasse, charcoal, animal wastes, vegetable wastes, and other wastes. Traditional Fuel Use is expressed as a percentage of total fuel use. OLS = ordinary least-squares  
use between Viet Nam and Malaysia) translates, on average, into one extra birth per woman over her lifetime and into an increase of seven births per 1,000 population. The fact that the crude birth rate effect is higher than the crude death rate effect explains why traditional fuel use has a positive and significant effect on the population growth rate. For example, the same 40 percent increase in traditional fuel use translates into an increase of nearly a full percentage point in the population growth rate.

The evidence presented here suggests that the rural poor are locked in a poverty trap: their patterns of energy use are associated with high infant and child mortality and with high birth rates maintained in part by high demand for children’s labor. These demographic and production circumstances, in a context of low education levels, reinforce existing patterns of energy use. Continued dependence on wood for fuel helps to depress income and maintain rural poverty by (a) requiring that time and money resources are devoted to collecting firewood; (b) harming the health of those who use it; and (c) abetting high birth rates. These conclusions are strongly buttressed by recent research on the economic consequences of demographic change (ADB, 1997a; Bloom and Sachs, 1998; Bloom and Williamson, 1998; Bloom, Canning, and Malaney, 2000). In the many areas where deforestation is taking place for agricultural purposes, the burdens of gathering firewood and all its derivative effects are increasing, as ever-greater amounts of time are needed to reach areas where firewood can be gathered.

**Improving Rural QOL by Addressing Energy Problems**

The links between energy and poverty have implications for the development of strategies to improve the quality of rural life and alleviate poverty. Standard poverty-alleviation strategies, such as macroeconomic growth, human capital investment, and redistribution, do not address the energy–poverty nexus in developing countries. Rural areas, in particular, are relatively unaffected by such strategies. If patterns of energy use in rural areas depress nutrition, health, and productivity, then residents
of rural areas are likely to benefit only very slowly from overall economic growth. Schooling will continue to promote earning capacity and QOL, but less effectively when biomass is the dominant energy carrier because of poor lighting, lack of access to knowledge via radio and television, and poor school attendance due to respiratory illnesses and time spent gathering wood.

Taking measures to promote the availability of modern energy sources and decentralizing control of these resources can help to promote social and economic equity within countries and thereby improve QOL in rural areas. Likewise, making markets work better by making credit more easily available (to help overcome barriers imposed by high up-front costs) is an important step. These measures will promote the use of more efficient energy sources, a necessary condition for helping the rural poor emerge from the energy-poverty trap. If such measures succeed, the emergence of rural areas from this trap will pay for itself.

**Tackling the Biomass–Poverty Trap**

Policies and programs that focus directly on creating opportunities for the poor in rural areas to increase their use of energy carriers other than biomass will allow them to enjoy both short-term and self-reinforcing long-term improvements in their standard of living (Reddy, 1991). Changing the financing structures associated with energy costs is also important, such as by

- pricing public utilities in a way that allows households to spread over time the fixed costs of connecting to electricity and natural gas grids;
- offering microcredit to buy appliances;
- allowing people in rural areas to rent appliances needed to utilize energy carriers; and
- providing smaller LPG canisters that require smaller deposits.
The access of poor households to modern fuels can also be improved by the geographic expansion of energy infrastructure to underserved rural areas. However, because of past failures to realize expected benefits, grid extension is a controversial and very expensive measure. On a more modest scale, governments may choose to arrange cross-subsidies to lower the cost of electricity in areas that are already electrified.

There is also scope for making dependence on biomass less costly. First, improved stove designs make a significant difference in the efficient burning of biomass. A new generation of stoves has gained widespread acceptance in some developing countries. The Chinese National Improved Stove Program is particularly noteworthy: in the 10 years beginning in 1982, more than half of all households in rural PRC received biomass stoves (mainly for burning wood and crop residues). Extensive pilot testing of new designs, promotion of stove manufacturing in rural areas, and economic incentives for stove use were all important factors in the PRC’s success. This success, however, comes with a major cautionary note: even households with new stoves still tend to use coal extensively, in part because coal stoves require less tending (Smith et al., 1993).

Second, biomass resources that are not privately controlled are likely to be used more effectively and efficiently if they are managed by local, rather than national, governments (Anderson, 1996). Local users are more likely to understand the burdens imposed on themselves and on the environment by the use of biomass resources, and to have the incentive to manage such resources efficiently and sustainably. Laws that allow such control to remain in or be transferred to local hands may make biomass resources less expensive in the long run.

**Developing New Sources of Energy in Rural Areas**

New developments in energy technology hold out the possibility of significant improvements in the availability of energy supplies in rural areas. The current set of available
energy carriers often consists primarily of low-efficiency, unhealthy, relatively expensive biomass sources. Electricity, as noted above, is the cheapest source for cooking, but this is only true when the electricity grid is already in place. Rural-based sources of electric power could make an enormous difference in the availability of inexpensive energy for rural areas.

The possibility of burning biomass to create electricity at competitive prices has long been discounted for two reasons: the need to draw biomass from large land areas, and the technical difficulties of efficient biomass conversion. Recent work (Reddy et al., 1997; Williams, 1998), however, points out that technological breakthroughs now permit the conversion of biomass to electricity that can be produced and sold at competitive rates. The type of microturbine envisioned for use in rural areas is extremely easy to maintain, is suitable for small-scale installations, and is expected to be very durable. The type of biomass gasifier that is needed to work in tandem with such a microturbine is already commercially available in India. In Nicaragua, sugar refineries burn bagasse (a surplus sugar cane product) to make heat and electricity for their own use, and in at least one instance, profit by selling excess energy through the grid.

In rural areas throughout the developing world, numerous projects have demonstrated the feasibility of using manure and crop residues to generate biogas for use in cooking and power (Reddy et al., 1997). Similar efforts have been made to collect methane gas emitted by the organic residues in solid waste, although these attempts have often foundered because of technical difficulties. Keys to operating successful biogas plants include ensuring local technical capacity in operating and maintaining systems, and motivating end-users to collect biomass for use by the plant.

Other types of power generation may be feasible in rural areas. Advances in wind generation, small-scale hydropower, geothermal generation, photovoltaics, and solar thermal-electric technology make rural areas increasingly appropriate sites for generating significant quantities of electricity. These renewable energy sources are relatively nonpolluting and have
the additional advantage that the fuel is free. As the technologies improve, these methods become more and more competitive.

Such developments could easily meet the current demand for electricity in rural areas. Indeed, it is likely that rural areas could sell energy to urban areas. Although extending power lines to provide electricity to relatively isolated rural areas is often not economically viable, the reverse is not necessarily true. If rural areas are generating electricity at competitive prices, it may well be feasible to extend the grid to rural areas for the purpose of selling electricity to urban areas. In this case, research (Williams, 1996) indicates that, in some circumstances, biomass used to produce electricity might generate more income per hectare than would cash food crops. Finally, as noted earlier, the availability of adequate electricity in rural areas may spur industrial investment and the creation of jobs.

PROVISION OF SOCIAL SERVICES

The availability of social infrastructure, in particular education and health, is crucial to the fulfillment of basic human capabilities. This section explores the advances made in rural Asia, but notes that rural areas lag behind urban ones. It suggests a number of policies for ensuring that rural Asians benefit from gradually increasing levels of social services.

Social Progress

In the 1960s and 1970s, most Asian governments set up widespread systems to deliver health and education services. While some countries involved the private sector, provision and financing were for the most part public, with a strong emphasis on universal coverage. User fees were therefore kept low, with services financed through general tax revenues. The
extensive networks of schools and health-care facilities that were created had a dramatic impact on social outcomes. Life expectancy increased from 48 years in 1960 to 66 in 1995, and infant mortality halved during the same period, from 131 per 1,000 live births, to 56. Literacy and school enrollment rates have also been rising. In East and Southeast Asia, primary school attendance is now practically universal. In South Asia, primary school enrollment rates rose from 68 percent in 1965 to 94 percent in 1992, and adult illiteracy had declined to 50 percent by 1995.

While the improvements in recent decades have been substantial, critical problems remain. For example, regional disparities are wide. While many countries in East and Southeast Asia have been able to provide access to high-quality social services to most of their populations, South Asia still lags behind. Adult literacy rates are below 30 percent in Nepal, and primary school enrollment rates are less than 75 percent in Pakistan. In Afghanistan, still suffering from the upheavals of civil war, primary school enrollment rates are barely 30 percent and the infant mortality rate is a staggering 157 per 1,000 live births. Gender disparities are also significant in South Asia. Adult female literacy in countries such as Nepal and Afghanistan lies below 15 percent, and female primary school enrollment rates are significantly below male enrollment rates in Pakistan and Afghanistan. Furthermore, a deeply entrenched urban bias in Asia has meant that rural areas are significantly disadvantaged in terms of access to both health and education services. For reasons of political economy, it is generally in governments’ interests to concentrate resources on densely populated urban areas to the detriment of the rural population. Even without this urban bias, access to schools and medical facilities is more difficult and costly in rural areas, with their poorer roads and transportation infrastructure.

Asia, on average, has seen large increases in real per capita outlays on social service spending over the past decade. Between 1980 and 1995, public expenditure on education rose from 2.1 percent to 2.6 percent of GDP in East Asia, and in South Asia from 2 to 3 percent. Health expenditure is lower,
at 1.7 percent of GDP for East Asia and 1.2 percent for South Asia, but has also been growing in absolute terms (World Bank, 1998b). On average, both health and education spending throughout Asia increased between 1986 and 1996 at an annual rate of almost 6 percent in real per capita terms (Gupta et al., 1998).

The public systems for social service provision in many Asian countries have not only been inefficient in terms of resource use, they have also tended to provide low-quality service, especially in rural areas. The inefficiency of these systems and the budgetary burdens that they place on governments, especially in the face of rapidly increasing demand for services brought about by population growth, have led to a call for new and innovative ways to meet the need for health and education services, including a growing willingness to involve the private sector.

**The Role of Government**

Traditionally, governments have played a predominant role in providing social services for reasons of both equity and efficiency. In rural areas, especially those where the population is dispersed and infrastructure is limited, the costs of providing widespread access can be significant. Rural populations are also, on average, poorer, and the private sector has generally not found it profitable to set up health or education facilities under these conditions. To provide universal access and to prevent the poor from being excluded from social services, governments have had to subsidize provision.

Efficiency considerations also call for an active government role. Both health and education have characteristics of merit goods, that is, they generate value to society above and beyond their utility to the private individual. For example, education increases the productivity and earning capacity of individuals. However, a well-educated workforce is believed to have an even greater positive impact on economic growth (Mankiw et al., 1992; Task Force on Higher Education and
Similarly, immunization against infectious diseases provides benefits to the individual, but also provides a benefit to society because it reduces the spread of disease to others. In such cases, rational individuals will purchase less of the service than is socially optimal. It is efficient for the government to subsidize such goods, thereby lowering their price and encouraging greater use. In the case of pure public goods where no one can be excluded from consumption, such as vector control to prevent such diseases as malaria or schistosomiasis, it is efficient for the government to take on the full cost.

There are good theoretical reasons for the government to be involved in financing social infrastructure. However, there is an important conceptual distinction between the financing and the provision of social services. In the past, governments have tended to finance and deliver services, with financing coming from the most part from general tax revenues. The private sector has generally offered private delivery of higher-quality services at higher cost, but the prevalent belief is that the private sector in general is more accountable to consumers, is more cost-effective, and uses better management techniques and more innovative approaches than the public sector. Private provision of services has the potential to reduce the government’s fiscal burden and encourage better resource utilization, but because of the issues of equity and efficiency it cannot be relied upon to deliver a comprehensive system on its own. Therefore a mix of private and public provision and financing might form the best basis of accessible, good-quality health care.

One approach to accessing private financing has been to charge user fees for government-provided services in the case of both health care and education. The major drawback of user fees is that demand for health and education services tends to be highly elastic, and even low user fees discourage use by the poor, limiting their access to services. Evidence from Indonesia shows that raising user fees for health care results in adverse health outcomes for the poor (Strauss and Thomas, 1998). Means-tested subsidies would be the most efficient way to ensure universal access. However, means testing is costly,
inefficient, and can create welfare dependency. Even when user fees are charged, they generally offset only a small part of the cost of social service provision.

**Social Insurance**

A number of Asian countries are exploring social insurance systems. Health-care insurance is a way to pool risk across time and across individuals to alleviate the burden of catastrophic illness. In the case of social insurance, there is a compulsory contribution to a social insurance plan. The compulsory nature of health insurance avoids two major problems that private insurance schemes face: adverse selection and cream-skimming. When not obligatory, sicker people have more of an incentive to buy insurance than do healthy people, which drives up costs for insurers (adverse selection), who then have an incentive to try to insure only the healthy (cream-skimming). Together these lead to ever higher premiums and lower coverage. Mandatory social insurance typically pools the risk across individuals, although there are other forms. For example, Singapore has instituted medical savings accounts that require individuals to invest money in a personal account that is available for use when health care is needed. Such accounts spread individuals’ risks over time, but do not provide much protection against catastrophic illness, as individuals are only covered to the extent of funds in their accounts.

Social insurance programs pay for privately provided health services through funds that are generally collected as an earmarked payroll tax. This allows individuals to access higher-quality private care, while freeing up government health-care resources that might otherwise be used to provide public tertiary care services. These resources can then be shifted toward more cost-effective expenditures such as public health services and preventative care. Many of the wealthier Asian economies, such as the Republic of Korea and Taipei, China, already have universal social insurance coverage. The need to ease the budgetary burden of health-care coverage, and the
desire to take advantage of the benefits of private provision, are leading other countries such as the PRC, Indonesia, Malaysia, Mongolia, Thailand, and Viet Nam to evaluate the benefits of introducing social insurance systems.

Countries with successful social insurance systems instituted them when their economies were relatively advanced, with high degrees of urbanization and industrialization. The issues involved in implementing such a system in poorer, more rural economies could be quite different. The collection of social insurance funds is considerably easier in the formal sector. Enforcement of premium collection in the rural, informal sector will be extremely difficult and is unlikely to be cost effective. Similarly, access to high-quality, privately provided tertiary services will be considerably greater for urban populations. Provision of services to rural populations is therefore likely to continue to fall to governments. The danger of social insurance systems is that they could create a two-tier system of health care, with poor rural populations being limited to low-quality public services while urban populations have access to higher-quality private services (Gentler, 1998).

While there are certainly problems associated with the social insurance approach in poorer, more rural economies, the provision of social services for a rapidly growing population is placing a tremendous burden on the governments of poor Asian countries. Developing innovative approaches for providing and financing these services is necessary to ensure universal access to high-quality health care and education to rural populations. The private sector can be an important resource in this endeavor, even if its primary role is to lift the burden of provision and financing in urban areas to free up government resources for the rural sector.

MICROFINANCE

Access to credit has always been an important factor in determining the QOL in rural areas, from the perspectives of
both investment and consumption. Investment loans can improve income generation in both the agricultural sector and nonagricultural areas such as small-scale manufacturing. Consumption loans enable the poor to reduce the variability of consumption and to withstand shocks in income, which can be frequent in an agricultural setting. The importance of having safe and accessible savings institutions is also now becoming more apparent to development practitioners. Household savings are another key factor in determining the ability of families to smooth consumption, and effective institutions for financial intermediation enable the mobilization of rural household savings for the process of rural development.

Up to 80 percent of households in developing countries do not have access to institutional finance (Robinson, 1997). The problem is even more highly concentrated in rural areas, where large segments of the population lack sufficient collateral to obtain loans. Much of the finance in rural areas tends to be informal, conducted through local money-lenders and landlords. While borrowers can take out loans for both consumption and investment, these markets are generally exploitative, with monopoly power enabling lenders to charge extremely high rates of interest, especially for lower-income borrowers.

Although some scholars have argued that these lenders provide an important service at a reasonable cost (Von Pischke et al., 1983; Von Pischke, 1991), others have noted that each money-lender or landlord will have particularly good access to information on creditworthiness, and often will also have interlinked contracts among a small group of borrowers. Among these borrowers, a money-lender will face low transaction costs and risk of default. Other lenders, who lack this information and have higher transaction costs and less protection from default, have a lower incentive to lend within this market. This creates a situation of monopolistic competition that enables money-lenders or landlords to charge very high rates of interest (Hoff and Stiglitz, 1998; Robinson, 1998).

Governments in many Asian countries, acknowledging the importance of credit for investment purposes, set up government-funded programs to provide subsidized credit for
agricultural investments (for example, India’s Integrated Rural Development Program). These programs were based on the assumption that rural inhabitants were too poor to save. Their aim was to provide cheap credit targeted at particular agricultural inputs and investments rather than to develop financial intermediation or to mobilize rural savings. The high rate of debt forgiveness that characterized these programs, and the fact that many of the loans were captured by wealthy, politically connected landlords, has resulted in programs becoming economically unsustainable. Not only were the loans inefficient, but also the availability of this credit is believed to have been destructive of the creation of viable commercial microfinance (Yaron and Benjamin, 1997; Meyer and Nagarajan, 2000). Furthermore, most programs did not provide credit for nonagricultural activities, effectively excluding many of the most vulnerable members of rural society and limiting the development of micro-enterprises. This has been particularly costly as population growth has increased the pressure on agricultural land and heightened the importance of diversification.

The past two decades have seen the development of new models of microfinance by the private sector, NGOs, and the State. By targeting low-income households, and by providing credit that is often collateral-free at significantly lower interest rates than the informal credit market, these institutions enable the development of micro-enterprises in rural areas and provision of income-generating opportunities to poorer segments of the rural population. The ability to alleviate poverty through sustainable finance has captured the attention of much of the international donor community, and microfinance is becoming an increasingly important factor in rural development. This section examines two models of microfinance, the Grameen Bank and the Bank Rakyat Indonesia, and evaluates their lessons for policymakers. Further information on the development of microfinance in rural Asia, from the financial market perspective, is described by Meyer and Nagarajan (2000). For a more global and multidisciplinary treatment of microfinance see Robinson (2000).
Grameen Bank

The Grameen Bank in Bangladesh is known internationally as a pioneer of microfinance. This NGO started in 1976 as an experiment. It became an official financial institution in 1983 and has now grown to service more than half the villages in Bangladesh. The Grameen Bank provides loans to the rural poor in order to initiate small-scale income-generating projects. It specifically targets the ‘functionally landless’ (those owning less than one fifth of a hectare of land), and uses a unique approach to avoid the problems associated with lack of collateral and adverse selection that generally characterize rural finance. Prospective borrowers of the collateral-free loans must first join into groups of five. While loans are made to individuals, the entire group guarantees the loan, and must repay it if the individual defaults or every member of the group will lose access to future credit. This joint liability system effectively replaces physical collateral with social collateral as a means of selecting against high-risk borrowers and of providing an incentive structure for loan repayment.

Grameen makes loans averaging less than US$100 for activities such as poultry farming, weaving, fan making, or sericulture. It also provides a wide variety of social services to its members, ranging from consciousness raising to training in functional literacy, health, and nutrition. It requires that its members attend weekly meetings and subscribe to ’16 decisions’ concerning personal improvement and social reform, such as a commitment to boil drinking water, to raise a vegetable garden, to not take a dowry from their son’s bride or to provide a dowry for their daughter, and to not have a large family. It also provides regular training sessions in income-generating activities to improve the success of projects undertaken by its members.

An unusual aspect of Grameen’s approach is that it lends almost exclusively to women, primarily because the loss of social collateral appears to be far more costly for women within Bangladeshi society than for men, and therefore loan repayment rates are higher for women. The efficiency outcomes
of such an approach are equivocal, as women are often constrained by social norms and domestic demands to undertake home-based income-generating activities which are less lucrative than options available to men. Pitt and Khandker (1998), however, find a greater impact on household expenditure of loans made to women than to men. They attribute this difference to the lack of wage-labor markets for women and the resultant production inefficiency of women’s time, which access to credit can avert.

While the efficiency impact of the gender bias may be ambiguous, the positive social implications are clear. By changing the relative earning power of women within the household, access to credit can fundamentally alter the gender imbalance inherent in Asian culture. Furthermore, there is evidence that women’s earnings tend to be used primarily to improve family welfare and children’s education and nutrition. Participation in Grameen programs is found to have a significant effect on various aspects of women’s empowerment such as economic security, political and legal awareness, and relative freedom from domination by other family members (Hashemi et al., 1996; Bernasek and Stanfield, 1997). This increased control over their lives can contribute perhaps more than anything else to the quality of women’s lives. Of course, money is fungible, and the loan received by a woman may be often controlled either partially or entirely by either the husband or other members of her family (Goetz and Sen Gupta, 1996). However, Hashemi et al. (1996) show that even in cases where women do not control the loans they are more likely to be empowered by Grameen membership. If they do contribute to family income through their own income-generating activities, this probability is even higher.

At subsistence levels, small-scale income-generating activities can have an important impact on a household’s abilities to achieve basic nutritional standards and to withstand illness or other shocks. Grameen is also believed to have had a strong impact in other areas such as raising school enrollment and increasing contraceptive use. These effects are difficult to verify, as there are selection biases that determine membership
of the Bank. On the one hand, the Bank targets poorer sections of the population, possibly leading to a negative selection bias. On the other hand, there is an incentive for the groups to pick members who are more responsible and stable, possibly resulting in a positive selection bias. Such issues make it difficult to evaluate the social welfare successes of the Bank. Pitt and Khandker (1998), in a study of three microcredit programs in Bangladesh including the Grameen Bank, do incorporate the effects of selection bias, and still find a significant marginal impact of credit on household expenditure. They also find that credit positively affects school enrollment rates of both boys and girls. The effect on girls’ schooling is less widespread (they find significant results for the Grameen Bank, but not for other microcredit programs), and they attribute this to the close substitutability of girls’ labor for women’s labor: as credit provides the opportunity for self-employment for the mother, the daughters may be expected to take on domestic chores.

Morduch (1998) raises some doubts about these results. Pitt and Khandker (1998) based their work on the assumption that Grameen successfully targets the functionally landless, but the high level of mistargeting that researchers have found in Grameen’s loan portfolio undermines this approach. Recent estimates find that less than half of the participants in these programs meet the targeting criterion of functional landlessness. Using a different statistical methodology, Morduch finds a negative marginal impact on household consumption. He disputes the schooling results, finding no clear positive impact from credit on school enrollment.

Morduch (1998) does, however, find positive effects for the participants of credit programs who meet the eligibility criteria. Rai et al. (1998) show that despite ineffective targeting, microcredit programs are able to reach the most vulnerable members of society—those least able to smooth consumption in the face of income shocks. Morduch also finds evidence that credit has been able to reduce the vulnerability of the poor by smoothing consumption over time. This has been accomplished by providing income-generating opportunities rather than consumption loans. Despite questions about the
extent of its impact on overall household consumption or children’s schooling, the ability of Grameen to improve the lives of the poorest members of society is a substantial contribution to rural QOL.

The Grameen Bank has developed its credit capital based on money from donor organizations and from highly subsidized loans. Although it requires its members to save a small amount every month, it has not attempted to mobilize savings seriously. Its sustainability has also been seriously threatened in the face of the recent floods which have afflicted Bangladesh (see Chapter IV), as a large percentage of the Bank’s members are not in a position to meet their payment schedules. While such regionally undiversified risk factors do present a threat to the Bank’s operational sustainability, its ability to reach the very poor and its innovative group lending program have made it a model that has been widely replicated in Asia and around the world.

Bank Rakyat Indonesia

A very different model of microfinance is presented by the state-owned Bank Rakyat Indonesia (BRI). While BRI is a large bank that provides corporate and international services, it has a separate local banking division that is responsible for providing microcredit to rural and urban areas. Local units offer savings instruments devised for local needs, and the system has been successful in mobilizing domestic and rural savings at a remarkable level, with deposits of approximately US$3 billion by the end of 1996 (Robinson, 1998).

BRI provides rural loans for any productive activity and, while it does require collateral, field workers have some control over the nature of that collateral. The spread between interest rates on savings and loans is set sufficiently high to cover all costs, and it is not only completely sustainable, but turns over a significant profit. Remarkably, the BRI has been able to maintain this profitability even in the face of the regional financial and economic crisis. Unlike the Grameen Bank, it
functions entirely as a financial intermediary, and does not provide social services.

The BRI also supervises a system of village banks called the *Badan Kredit Desa* (BKD) system. These banks provide smaller loans and do not require collateral. Taking advantage of the government’s highly developed administrative structures, village heads and village-level management commissions are used to allocate funds, avoiding the information constraints generally faced by formal institutions involved in rural lending. While these banks are often more convenient for villagers and provide small loans, they do not target the poor and often charge even higher interest rates than the BRI. Moreover, they depend on the particular political structures in place in Indonesia, and are therefore not easily replicable (Morduch, 1998).

Unlike the BKDs, the BRI local-unit system does provide a replicable model, as does the Grameen Bank. It is interesting to explore these alternative models when evaluating the role of the donor or policymaker in advancing microfinance. The trade-offs between these two systems, which are based on somewhat different philosophies, raise issues about the best way to improve QOL in rural areas.

**Evaluating the Two Models**

The fundamental difference between the BRI and the Grameen Bank is self-sufficiency. BRI’s local-unit system yields profits that have been used to subsidize less-profitable parts of the Bank. While the Grameen Bank has generally been able to maintain operational sustainability, it is fundamentally dependent on grants and soft loans to finance its loan portfolio. One reason is the lack of focus on mobilizing savings. Although the Grameen Bank encourages its members to save because it is viewed as a social good, it simply deposits these savings in interest-bearing accounts rather than investing them in its loan portfolio.
Another important factor explaining the inability of the Grameen Bank to survive without subsidies is that the interest rates it charges on loans are not sufficient to cover the market costs of inputs. Yaron (1992) developed the subsidy dependence index, which shows how much a bank would have to increase interest rates in order to operate without subsidies. Calculating the subsidy dependence index for Grameen Bank from 1985 to 1996, Morduch (1998) estimates that it would have had to raise nominal interest rates by 20 percent to 33 percent, bringing it in line with the effective interest rates charged by BRI. The welfare effects of such a change are ambiguous. While some have claimed that it is access to credit per se that is important to the poor, not access to cheap credit, the sensitivity of demand to interest rates is fundamentally an empirical question, the answer to which is likely to be highly context-dependent. Grameen attempts to target the poorest households. If the interest elasticity of these households is high, raising interest rates will severely limit their ability to take advantage of these credit opportunities. Thus, raising interest rates in order to achieve sustainability could come at the cost of Grameen’s ability to target the very poor.

As discussed earlier, the Grameen Bank integrates its lending with a collection of social programs. While significant social benefits may arise from these programs, they come at a cost. The administrative and salary costs of the Grameen Bank as a percentage of its loan portfolio are significantly higher than that of BRI (Rhyne and Rotblatt, 1994), which is another factor in its continued dependence on subsidies.

Robinson (1998) argues for the separation of social and financial services, and urges governments and donors to avoid programs that link them on the grounds that such integration drives costs upward and renders microfinance initiatives commercially unsustainable. Robinson argues that programs directed at poverty alleviation are preferable to microfinance as mechanisms for aiding the poorest of the poor.

There is an issue as to whether it would be more cost effective to provide social services separately. The system that the Grameen Bank uses is time-intensive for both bank workers
and members. This in itself can be costly. However, the link between the services may deepen the Bank’s work. For example, South Asian culture severely restricts the mobility of women. They are generally not allowed to associate freely with anyone outside the direct family, especially men. Their family members are unlikely to allow them to attend meetings that transmit the sorts of social messages that the Grameen Bank and other such microcredit NGO meetings offer, or to take advantage of the training sessions that these organizations provide. Requiring them to attend regular group meetings in order to obtain credit may make their attendance at these meetings more palatable to other family members, and these meetings can then be used for the provision of other services.

A more fundamental criticism is that the existence of such subsidized programs undermines the creation of commercially viable microfinance programs such as BRI. If the aim is to provide long-term and widespread credit, this is an important concern, because long-term dependence on subsidies may not be sustainable, and the model is harder to replicate on a very large scale. If widespread access to credit is more important than the provision of targeted cheap credit, then it is wise to eschew support of subsidized microcredit programs in favor of developing the regulatory and legal environments necessary for the creation of sustainable credit institutions, and funding their institutional development. However, these institutions do not best serve the needs of the poorest households. It is possible that the social benefits of subsidizing the institutions that target the poorest outweigh the benefits of serving a broader population. The answers to these questions are fundamentally empirical, and will probably differ in different settings. Although empirical work is still at an early stage, the widespread interest in microfinance as a tool for reducing rural poverty demands further research on its impact.
LAND REFORM

The rural poor tend either to be landless or have very small landholdings, leading many analysts to argue that the roots of rural poverty lie in the structure of landholding (Singh, 1990). In rural settings, land ownership is also inextricably linked with political control, and administrative and political structures are often dominated by the landed elite. It is believed that land reform can be a critical policy tool for alleviating poverty and enhancing self-determination of the rural poor.

The term ‘land reform’ is used to refer to a collection of policies that attempt to alter the structure of landholding and tenancy. The two most viable land reform policies in a contemporary context are land redistribution and tenancy reform. Brief mention will first be made of two other aspects of land reform that have played a role in Asian development: the abolition of intermediaries and the consolidation of landholdings.

The abolition of intermediaries, particularly in South Asia, has been one of the more successful aspects of land reform. Around 1793, the British introduced a zamindari or permanent settlement system over much of South Asia. Under this system, feudal lords were given rights to collect rent from tenants in return for fixed revenue payments to the British. After independence, the political animosity toward these agents of the colonial power ensured the successful elimination of the zamindari system from much of the region by the 1950s, although Pakistan has been an exception. These reforms were successful, but they also were costly. Large sums of money were paid to zamindars as compensation, and many of them today are large agro-industrialists. Many managed to acquire ownership of land from which they previously only collected rent, and numerous tenants were evicted from these lands. Ray (1996) pointed out that many of the tenants who benefited from this reform and became landholders are now among the most powerful opponents of land-ceiling policies.
Policies to consolidate landholdings were undertaken primarily on grounds of efficiency, since a major problem in Asian agriculture has been the fragmentation of landholdings. While the problem increases with the size of the landholding, even small landholdings are highly fragmented. This is extremely inefficient as it causes a loss of time and energy in moving from one plot to another, a waste of land in boundaries, and increased difficulty in setting up irrigation systems. Consolidation is hampered by a desire not to slow wider reform efforts and by the complexity of evaluating land quality to ensure fair exchanges, making these reforms difficult to carry out. Nevertheless, consolidation has been achieved in some regions and, while the efficiency benefits are not under contention, some analysts claim that they have in fact been regressive, as rich farmers have been able to manipulate the system to gain access to higher-quality lands (Drèze et al., 1997). While the abolition of intermediaries and the consolidation of landholdings have played an important role in the past, they no longer play a significant role in the land reform debate.

**Land Redistribution**

Redistribution of land from large landholders to landless labor or small landholders generally involves setting a ceiling on land ownership and confiscating and redistributing all land over that ceiling. In some cases it involves the purchase of excess lands that are then to be redistributed. It is interesting that land ceiling and redistribution policies, rather than presenting the usual equity/efficiency trade-off, have been advocated on the grounds of both equity and efficiency. Several studies have found farm size and yield per hectare to be inversely correlated (Sen, 1964; Saini, 1971; Heltberg, 1998). One reason is that, unlike most production processes, there do not appear to be significant returns to scale in agriculture. This has been attributed to the higher costs of supervision faced by larger farms compared to small, family-run farms. It has also been conjectured, based on nutrition-based efficiency wage theories,
that employment and output will increase if land is more equitably distributed. The contention is that wage levels below those that ensure adequate nutrition for laborers to work efficiently will encourage employers to hire laborers who have other sources of income. Providing some land to all workers will therefore increase employment. However, attempts to test the hypothesis of different wages for the landed and landless have not found strong support (Rosenzweig, 1980; Bardhan and Rudra, 1981).

Land redistribution policies raise certain ethical questions, but the equity advantages of these policies are clear. Not only does providing people with land enable them to break out of the cycle of poverty, it can also enable greater self-determination within political structures that are often dominated by the landed elite. At a structural level, changing the nature of the production relationship may provide the most fundamental tool for effecting widespread improvements in the lives of the rural poor.

There are, however, serious drawbacks to the policy of land redistribution. Implementation of such an extreme policy has, in most cases, faced insurmountable barriers. For example, in 1949 the (then newly created) Indian constitution granted states the right to enact and implement land redistribution laws, but the state legislatures were primarily controlled by the landed elite. Although many states enacted land ceiling laws, they were often designed with deliberate legal loopholes and were seldom enforced. Ceilings were often set too high, and loopholes enabled most landlords to distribute land among family members or to bribe village record-keepers to register land in the name of fictitious persons. Ray (1996) estimates that land ceiling laws have been enforced on less than 2 percent of the total operated land in India since independence.

In some cases, political circumstances have been favorable and land redistribution has been successfully implemented. For instance, the takeover by Chiang Kai Shek in Taipei, China in 1949 laid the groundwork for massive land reform. The Kuomintang realized that the support of the peasantry was an important factor in achieving military strength, so they had a
politically motivated interest in a more equitable distribution of land. They were outsiders and had no vested interests in the landed elite. A confluence of political factors thereby enabled the successful implementation of land reform policies.

**Tenancy Reform**

Tenancy reform can take the form of either regulation of tenancy contracts, or ‘land to the tiller’ policies, with land given from owner to tenant. The system of sharecropping that exists in much of Asia has often been deemed exploitative and inefficient. The equity argument has been that the shares of output going to landlords are generally set at unfairly high levels. The efficiency argument points out that it is not in the interest of the farmer to use inputs and effort at the optimum level if the latter receives only a part of the return. This combination of arguments made tenancy reform a central goal of many Asian governments after World War II.

In recent years, however, the efficiency argument has come under increasing debate. While sharecropping might not be efficient in a world of perfect markets, it has been argued that it is a solution to a second-best situation. In the absence of efficient markets for credit and information, it may serve a useful function, and banning it outright without replacing it with other institutions capable of serving this function may deprive the landless of a valuable option. Sharecropping contracts are a way to share risk between the tenant and landlord, which can be critical in the absence of insurance markets. Contracts are often found to cover more than just crop shares. If inputs are contractually specified, inefficient allocation is less of a concern, and if landlords provide some or all of the inputs it alleviates the potential inefficiencies caused by lack of resources and access to credit faced by tenants. Links with credit markets, where landlords also act as a source of credit, can provide a monitoring mechanism, thereby reducing the moral hazard problems of insufficient labor inputs. Several studies have evaluated the efficiency of sharecropping in South and
Southeast Asia. A review of these studies by Rashid and Quibria (1995) found evidence on the inefficiency of sharecropping to be inconclusive.

Like land redistribution policies, many laws have been enacted for tenancy reform, and the problem once again arises in implementation. For example, there are numerous cases of mass eviction of tenants as a result of imminent legislation to guarantee security of tenure. Many of those tenants were hired as permanent labor instead, thereby worsening their positions. When contracts are legally regulated to give tenants a higher share, shares are often agreed to informally instead of formally, providing even less security for the tenant. However, there have also been notable successes in implementation of tenancy reform, generally where there has been broad political will. For example, in the case of Operation Barga, a sharecropper registration program in West Bengal in the late 1970s, the political determination of the communist government, backed by effective mobilization at the local level and strong popular support, led to widespread implementation of laws, many of which had been on the books since the 1950s. Based on Operation Barga, Singh (1990) identified four factors essential to successful implementation of tenancy reform: group action; public proceedings in order to verify claims of landlords and tenants; state power exercised on behalf of the tenant; and speed of implementation to prevent evictions and the changing of contracts before enforcement.

The Effectiveness of Land Reform

While there has been much debate about the effectiveness of land reform in improving equity and efficiency, few comprehensive studies have evaluated the outcomes of successfully implemented reforms. A recent quantitative study on India by Besley and Burgess (1998) attempts to evaluate the effects of land reform on both the reduction of poverty and economic growth. Using panel data on 16 states between 1958 and 1992 they evaluated the impact of land reform as a
whole, as well as each individual reform. Their results show that land reform does reduce the rural poverty gap, and thereby reduces the gap between urban and rural poverty. Consolidation of land, a reform motivated by efficiency considerations, had no significant effect. Land redistribution was also found to have a negligible effect, which the authors attribute to limited success in implementing these reforms. Both tenancy reform and the abolition of intermediaries had a negative and significant association with poverty. Their results do, however, indicate something of an equity–efficiency trade-off, as tenancy reform was negatively related to agricultural growth, although consolidation of land was positively related.

Many Asian countries experimented with land reform policies in the postcolonial period, enacting laws to improve land distribution and tenant rights. As seen above, however, the extent to which these laws were successfully implemented varied widely from country to country, with East Asian economies such as the Republic of Korea and Taipei, China achieving significant redistribution, while many South Asian countries did not find the political will to carry out the reforms to the extent originally envisioned. The experience of each country is fundamentally defined by its unique political history, and it is difficult to provide firm guidelines for successful implementation of significant land reform. The countries that have achieved substantial reforms appear to have benefited from anomalous windows of opportunity—brief periods of time when political events have led to a confluence of interests between the politically powerful and the rural peasant class.

The potential power of land reform in improving QOL for the rural poor cannot be discounted. Changing the structure of production relations in agriculture not only improves basic consumption levels, it can also empower people politically and socially. However, from the perspective of the policymaker it is important to keep in mind that the political will required to achieve significant redistribution will be difficult to find, especially in stable capitalist democracies. Furthermore, the confiscation of property violates the most fundamental principle of capitalism, and it has been suggested that the threat
of such a prospect can in itself create critical inefficiencies because it discourages investment and accumulation. Although it is possible to purchase land for redistribution among the landless, this is a very expensive option, and it is unlikely that the money would be forthcoming to carry out such a policy at a broad level.

The difficulties inherent in the implementation of serious land reform policies suggest the use of what might be perceived as less extreme options for achieving the necessary changes. While it is crucial to change regulatory structures to secure equal inheritance and ownership rights for women, achieving broader redistribution or structural change through regulation appears to be more difficult. It may be possible to achieve some amount of redistribution through the use of progressive taxation. Other policies, such as ensuring access to credit at reasonable interest rates, can enable the landless to purchase land and break out of the cycle of poverty. While the effects of such policies may not be as widespread, these seemingly second-best options may actually have a higher likelihood of success in view of the often insurmountable political barriers to implementing successful land reform.

CONCLUSION

The preceding two chapters have developed more fully the QOL model presented in Chapter III. Chapter IV explored the influence of institutions on QOL, while this chapter has considered policy options for improving QOL through modifying the institutional framework. The direct and indirect links between various aspects of QOL have also been highlighted, exposing the virtuous spirals that lie at the heart of successful policies to improve QOL.

Policymakers, however, do not have the luxury of working in a constant environment. The world is fast changing. The challenges rural Asia must face in the first half of the 21st century are explored in the following chapters.
Policymakers need to understand more than the current state of QOL in rural Asia. They need to grasp how it is changing, and to develop visions and strategies based on an understanding of the opportunities and roadblocks that lie ahead.

Rural dwellers face a continuing need for better access to basic infrastructure and services, especially clean water, sanitation, and health care. Table VI.1 shows rough estimates of the number of rural Asians that will be without access to these services in the first quarter of the next century. Although there is general improvement, in 2010 roughly half the rural populations of the PRC and India will still lack sanitation, and over a quarter will not have access to a safe water supply. Poverty will also remain a pressing problem, requiring productivity growth in all sectors, investment in human capital, and significant institutional and organizational change. Demography will continue to exert a profound influence on QOL. The demographic challenges of the next 50 years are explored in detail in this chapter. A discussion of HIV/AIDS shows the magnitude of the impact of health reversals. Unless the epidemic is fought with determination and commitment, it has the potential to destroy many key QOL gains made in the 20th century.

Policymakers must plan for a future that will bear only a partial resemblance to the past. This requires information, vision, and the political will to implement programs whose pay-offs will be realized in a longer time horizon than the typical democratic electoral cycle. This chapter explores four new challenges that Asia faces: globalization, democratization, the explosion of information technology, and increased decentralization. Each of these challenges places new emphasis
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<th>Projections for 2025 Number without access to</th>
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on the creativity, enterprise, and resilience of people. Ongoing investment in human capital will be needed to complement economic restructuring and political change.

THE DEMOGRAPHIC CHALLENGE

Demography has played a major role in Asia’s growth in recent decades, and will continue to do so well into the next century. It also has a critical influence on other QOL concerns such as family life, old-age security, distributive politics, and gender equity. This section examines population trends and discusses the implications for QOL in rural Asia. Unlike many of the other forces that are buffeting rural Asia, demographic change is highly predictable. Decision makers can use it today to plan for tomorrow, creating programs that benefit from salutary trends and that mitigate more troubling ones.

Rural versus Urban Population Growth

Even though rapid rates of urbanization are bringing down the urban to rural population ratio in Asia, rural populations will continue to grow in absolute terms. Figure VI.1 shows the size of the rural population in East Asia, Southeast Asia, South Asia, and Central Asia from 1950 projected to 2030. South Asia has the highest rural population in Asia, although the PRC has the most rural inhabitants, 880 million. However, as a result of its aggressive family planning program, the PRC is already seeing a decline in rural population and will soon be overtaken by India, which is still experiencing relatively high rural population growth.

In all regions, population growth rates have begun a steady decline (Figure VI.2), which is projected to continue until replacement-level fertility is achieved. This decline has been much steeper in East Asia than in any other region, again primarily because of the PRC’s success in lowering fertility
The Quality of Life in Rural Asia

Figure VI.1: Rural Population Projections

Figure VI.2: Average Annual Rate of Change in Rural Population

rates. Population growth rates in the other three regions are projected to remain positive for the next two decades. Thereafter, growth rates for all regions will be negative.

Populations continue to grow in both rural and urban sectors, although growth rates are declining (Figures VI.3 and VI.4). While absolute population is substantially higher in rural Asia, the rate of population growth is higher in urban areas, and thus the ratio of rural to urban population is declining steadily.

Table VI.2 presents projections of the size and growth of populations in Asia by country and shows the change in the share of the rural population, that is, the rate of urbanization. Rural–urban migration is important to economic growth because of the reallocation of labor from the low-productivity agricultural sector to the high-productivity industrial sector. This migration is important for the industrial sector as it provides a source of labor. For rural areas, remittances from workers in higher-paying urban jobs can contribute significantly to rural incomes and the ability to accumulate assets (Adams, 1998).

The demographic transition also leads to changes in a population’s age structure. As fertility rates fall, the number of young children declines and the ratio of dependents to working-age people decreases. Declining fertility also creates a bulge in the age pyramid, because the cohort born immediately prior to the decline in fertility rates will be the largest cohort. When this large cohort reaches working age, dependency ratios will fall even further. As the ratio of workers to dependents increases, so will per capita income, even if per worker output remains constant. Recent work by the Asian Development Bank (ADB, 1997a), Bloom and Williamson (1998), and Bloom, Canning, and Malaney (2000) has shown that this demographic dividend has contributed significantly to the rapid rates of economic growth in East Asia, which had the earliest and most rapid demographic transition in Asia. Southeast Asia is just beginning to experience the economic growth impact of its changing demography. South Asia, where fertility declines have been the slowest, will gradually begin
Fig. VI.3: Urban and Rural Population Projections for Asia


Fig. VI.4: Population Growth Rate Projections for Asia

Table VI.2: Projections of the Size and Growth of the Population of Rural Asia

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to experience the effects of this transition as well, although its impact will be weaker because of the more gradual demographic transition.

While Asia as a whole has experienced and will continue to experience this boost from the changing age structure, rural areas within Asia have been less successful in accomplishing the necessary demographic transition. Table VI.3 shows that total fertility rates are considerably higher in rural than in urban areas in every country. This is a combination of higher wanted and unwanted fertility. Even though wanted fertility is higher in rural areas in almost every country, contraceptive prevalence is lower, and the unmet need for contraception in rural areas is also higher in most countries.

**Strategies to Control Fertility**

Accelerating the demographic transition in rural areas provides a way for countries to create a rural demographic dividend, thereby enhancing both growth and QOL in rural Asia. This requires targeting unwanted fertility aggressively and also exploring the factors that make people want large families.

The first step to targeting unwanted fertility is to provide rural Asians with the wide access to family planning and reproductive health services that their urban compatriots usually enjoy. Bangladesh has made tremendous progress in ensuring contraceptive availability in isolated rural areas, by emphasizing community-based distribution and development. This has been achieved by the public sector working in partnership with NGOs and accessing the rich rural networks that many NGOs have developed.

Policymakers are also acknowledging that family planning services are best delivered as part of a package of reproductive health services that cater to clients’ needs, rather than just attempting to control their fertility. The political and social context within which such services are provided not only has a direct effect on community QOL, but also determines the efficacy of the family planning program. India’s family
Table VI.3: Fertility and Access to Contraception

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<th>Wanted Fertility</th>
<th>Contraceptive Prevalence</th>
<th>Unmet Need</th>
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<td>Urban</td>
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<td>1.5</td>
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<tr>
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<td>2.7</td>
<td>2.9</td>
<td>2.1</td>
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<td>2.9</td>
<td>3.1</td>
<td>1.9</td>
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<td>5.1</td>
<td>3.8</td>
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</table>

Note: Urban numbers for Sri Lanka refer to the Colombo Metro area.
Source: Demographic and Health Surveys
planning program is still suffering from the excesses of the 1970s, during which coercion and emphasis on targets for sterilization drove the program. Only by supporting a more comprehensive reproductive health program can the Indian Government overcome continuing public mistrust and raise contraceptive prevalence rates in rural areas.

Addressing high levels of wanted fertility is a more complex issue. Patterns of declining fertility across the world show that people are quick to have smaller families when the economic and social conditions are right. In rural areas, however,

- health risks tend to be higher, encouraging people to have more children in order to insure against infant and child mortality (Table VI.4);
- the opportunity cost of raising children tends to be low, while children can be economically productive from an early age by working in agriculture; and
- there are fewer opportunities to concentrate resources on small numbers of children, as educational access and standards are currently lower than in towns.

Cost-effective ways of changing people’s desired family size include

- raising the value of women’s time through education and action to correct gender inequality in the labor market;
- measures to improve the health of children, allowing parents increased certainty about their survival, and also enabling them to learn more effectively in school, thus increasing the value of parental investment in education; and
- providing access to financial services, for example through microfinance programs, allowing adults to easily and safely save for their old age, thus reducing their expected dependence on large numbers of children.
The benefits of demographic change are lessened in rural areas, however, by the tendency of young working-age people to migrate to towns and cities. Table VI.5 shows that dependency ratios are significantly higher in rural than in urban areas. While much of the difference is a result of higher 

| Source: Demographic and Health Surveys |

Table VI.4: Infant and Child Mortality

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<th>Country</th>
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<td>Nepal 1996</td>
<td>95.3</td>
<td>53.2</td>
</tr>
<tr>
<td>Pakistan 1990–1991</td>
<td>102.2</td>
<td>33.0</td>
</tr>
<tr>
<td>Papua New Guinea 1996</td>
<td>86.6</td>
<td>27.3</td>
</tr>
<tr>
<td>Philippines 1998</td>
<td>44.3</td>
<td>30.5</td>
</tr>
<tr>
<td>Sri Lanka 1993</td>
<td>24.0</td>
<td>5.8</td>
</tr>
<tr>
<td>Uzbekistan 1996</td>
<td>43.8</td>
<td>13.6</td>
</tr>
<tr>
<td>Viet Nam 1997</td>
<td>31</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: Demographic and Health Surveys

Table VI.5: Ratio of Rural to Urban Population in Different Age Groups

| Source: Demographic and Health Surveys |

<table>
<thead>
<tr>
<th>Country</th>
<th>Rural/Urban Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh 1996–1997</td>
<td>1.17 0.88 1.43</td>
</tr>
<tr>
<td>India 1992–1993</td>
<td>1.14 0.91 1.19</td>
</tr>
<tr>
<td>Indonesia 1997</td>
<td>1.19 0.91 1.12</td>
</tr>
<tr>
<td>Kazakhstan 1995</td>
<td>1.38 0.89 0.67</td>
</tr>
<tr>
<td>Kyrgyz Rep. 1997</td>
<td>1.28 0.87 0.84</td>
</tr>
<tr>
<td>Nepal 1996</td>
<td>1.18 0.88 0.97</td>
</tr>
<tr>
<td>Pakistan 1990–1991</td>
<td>1.06 0.93 1.35</td>
</tr>
<tr>
<td>Papua New Guinea 1996</td>
<td>1.07 0.93 2.71</td>
</tr>
<tr>
<td>Philippines 1998</td>
<td>1.16 0.89 1.11</td>
</tr>
<tr>
<td>Sri Lanka 1993</td>
<td>1.14 0.93 1.19</td>
</tr>
<tr>
<td>Uzbekistan 1996</td>
<td>1.21 0.91 0.68</td>
</tr>
</tbody>
</table>
rural fertility rates, a significant portion undoubtedly arises from age-selective migration. While migration also leads to higher remittances, policymakers need to be aware of the extra difficulty of diversifying rural economies when many of the best and brightest young people leave as soon as they are able.

Old-age Provision

The demographic dividend is a one-off, time-limited opportunity. A 'baby boom' generation must first be educated. It then enters the labor market, at which point the dividend can be collected if the extra workers are absorbed into productive employment. Finally, however, members of this enlarged cohort begin to retire and the old-age dependency burden rises.

The aging of Asia’s population is a challenge that can only be met if it is faced now. The proportion of the elderly is already rising, rapidly in some cases, notably in the more developed economies of East Asia. The elderly are also living longer. This creates new stresses for the family and affects its ability to care for its members.

Both by tradition and necessity, the family in Asia has been the main source of support for the elderly. Children are typically responsible for the economic well-being of their parents. In addition, parents and their adult children are much more likely to live together than in the West (Bian et al., 1998). Such arrangements often entail two-way flows of intergenerational aid, at least while the aging parents remain relatively healthy. Adult children and their spouses benefit by living in the parents’ home; parents either continue to work and bring income into the household, or assist as unpaid family helpers with agricultural or other domestic chores, or with child care.

This system faces increasing pressure. Lower fertility rates mean that people will have fewer children to support them in their old age, which is of great concern as there is a lack of well established social safety nets. The low coverage of most pension systems, especially in rural areas, could result in a huge burden being placed on the public purse. Some authors
(Eberstadt, 1998; Heller, 1998) point to the possibility of a crisis as early as 2015, when high dependency rates will begin to bite in countries such as the PRC, Republic of Korea, and Thailand.

Some evidence suggests that the unmet needs of the elderly will not increase catastrophically. People have smaller families because of the high chance their children will lead long lives and, with the number of Asians who claim to want no children or only one child hardly increasing (Knodel et al., 1992; Jiang, 1994), most old people are likely to have at least one surviving child. In Thailand, for example, old people with only one surviving child are almost as likely to live with him or her as those who have two children. In the PRC, Jiang (1994) has calculated that by 2030, when the first cohort affected by the one-child policy retires, only 2.5 percent of the rural elderly will be childless and only 1.7 percent of rural households will be responsible for more than one parent. While countries are likely to have millions of elderly with unmet needs, the situation will be manageable if policymakers begin planning for it now.

However, these analyses ignore the importance of cultural change caused by migration, urbanization, and the increase in number of the oldest old. While the Asian family is seen as a force promoting social stability and as a provider of social welfare for its members, demographic change is likely to strain this traditional institution. First, the intergenerational bargain of care giving may weaken. Moreover, with fewer siblings to share the cost of caring for aging parents, their individual financial obligations will increase (Eberstadt, 1998). The sense of responsibility that underlies this bargain is also likely to be undermined. While urban migration may mean more remittances flowing back to rural areas, a situation that is good for the elderly, it may also lead to the growth of nontraditional attitudes, including greater individualism. Such attitudes are typically associated with the processes of modernization and urbanization.

In addition, the growth of mass communications that emphasize individual lifestyles and personal autonomy may
also be weakening children’s commitment to the bargain. Evidence from the focus groups and from various qualitative analyses (Chapter III and Appendix 3) suggest that people are concerned about whether their children will feel as obligated to meet their responsibilities as previous generations did. Survey data from India reveal differences in attitudes both across generations and across the urban–rural divide. Table VI.6 shows that in general, while people in India tend to agree on the mutual duties of parents and children, agreement is noticeably less in urban areas than in rural areas, and among the youngest cohort compared with those older than 65. This supports an interpretation that an attitudinal transformation toward family life, such as the advanced industrial countries have already experienced (Inglehart, 1997), may be under way. This bodes ill for continued reliance on the family as the sole means of welfare provision for the elderly in Asia.

**New Solutions for Old People**

The potential impact on the family of cultural change requires policy measures to ensure the welfare of the oldest citizens in the future. Some Asian countries are attempting to encourage traditional values through public campaigns or by passing filial piety laws to force children to meet their obligations to their parents. For example, in 1995 Singapore passed the Maintenance of Parents Act, designed to compel children to support their aging or infirm parents who are unable to support themselves (and to complement existing legislation requiring parents to support their children).

Another response to the changing needs of the elderly is to ensure that more people have access to savings and pension systems. In rural Asia, providers of credit such as NGOs and other microcredit organizations have typically not mobilized savings. This means that incentives and capacity building for managing deposits need to be created. In addition, financial market controls, so noticeably absent in the recent financial and economic crisis, must be put in place to ensure the soundness
The Quality of Life in Rural Asia

of any pension schemes. This is particularly true in the Central Asian republics, where the total economic collapse of another former Soviet satellite, Albania, serves as a cautionary reminder about the need to have financial market regulations in effect before the public begins to invest its savings.

The elderly in rural Asia will need increased access to services, as well as financial resources, if they are to enjoy a reasonable QOL. The aging of the population and declining mortality and morbidity mean a growth in the numbers of the

<table>
<thead>
<tr>
<th>Age</th>
<th>Q.1 Children must always love and respect parents, regardless of their behavior</th>
<th>Q.2 Parents’ duty is to do their best for their children, even at expense of their own well-being</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–24</td>
<td>88</td>
<td>75</td>
</tr>
<tr>
<td>25–34</td>
<td>87</td>
<td>87</td>
</tr>
<tr>
<td>35–44</td>
<td>89</td>
<td>81</td>
</tr>
<tr>
<td>45–54</td>
<td>89</td>
<td>84</td>
</tr>
<tr>
<td>55–64</td>
<td>90</td>
<td>85</td>
</tr>
<tr>
<td>65 and older</td>
<td>97</td>
<td>92</td>
</tr>
</tbody>
</table>

* This Table reports answers to two different questions. Respondents chose between two formulations for each question and each column reports the percentage agreeing with the first statement in each question:

Q. 1 Regardless of what the qualities and faults of parents are, one must always love and respect them OR One does not have the duty to respect and love parents who have not earned it by their behavior and attitudes.

Q. 2 Parents’ duty is to do their best for their children even at expense of their own well-being OR Parents have a life of their own and should not be asked to sacrifice their own well-being for the sake of their children.


Table VI.6: Attitudes Toward Duties and Responsibilities of Parents and Children in India, by Age and Residence. Percent Agreeing with Statements*

<table>
<thead>
<tr>
<th>Residence</th>
<th>Q.1 Children must always love and respect parents, regardless of their behavior</th>
<th>Q.2 Parents’ duty is to do their best for their children, even at expense of their own well-being</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>88</td>
<td>82</td>
</tr>
<tr>
<td>Rural</td>
<td>95</td>
<td>90</td>
</tr>
</tbody>
</table>
oldest old, usually defined as those older than 75 or 80. This period of life is associated with decreasing functionality and mobility and greater dependence. The need for local services is especially acute for this population, because their limited mobility means they are less able to travel long distances to access services. In a study of the oldest old Chinese, Ho et al. (1997) found that participants, especially those age 90 and older, were at high risk of losing their mobility during the 18-month study period. This was associated with a higher incidence of depression and a decline in perceived QOL.

The growing population of the oldest old means rethinking policy options for several reasons. First, in the absence of services, cash resources alone will not meet this group’s needs. Living alone, or even with an elderly spouse, may not be an option as aging progresses and mobility decreases. As fertility declines and urban migration increases, there will be an increasing unmet need for local caregivers. Second, the children of the oldest old are likely to be elderly themselves, which means that they themselves will have fewer economic resources from current earnings and a diminished ability to provide care.

Communities must be encouraged to take on the task of caring for their elderly members. This will not be easy, especially in an era of decentralization, when scant local budgets will be subject to demands from many groups. The elderly will need to find a voice within the system to make their needs heard and addressed. The rural health-care system will also need to be retooled to some extent. For example, village health workers and NGO staff, who tend to focus on children’s and reproductive health, will need to be trained in geriatric medicine.

Gender Equity

Demographic change in parts of rural Asia is likely to lead to a changing sex ratio that has both positive and negative implications for gender equity.
Two trends point to a shortage of marriageable women in the future. First, as fertility declines, the number of people in succeeding cohorts is smaller than in preceding ones. As men tend to marry women slightly younger than themselves, this indicates a likely shortage of female spouses. Second, the growing sex imbalance in favor of men in parts of South Asia and the PRC, as a result in part of the neglect or worse of female children and the poorer treatment afforded women, is also creating a smaller supply of women. Such conditions may partially offset the lower social status that women hold in many societies. As the imbalance grows, women will be in shorter supply, and thus may have more bargaining power over when and whom they marry. With greater options, they may gain more authority within their households and in decision making.

A different demographic trend in rural areas points in the opposite direction. With the notable exception of the Philippines, men are more likely to migrate out of rural areas than women. This tends to shift the rural sex ratio of the working-age (and marriageable) population in favor of women. For married women whose spouses migrate, this may make them the de facto head of household and empower them in terms of decision making. For unmarried women, this may have a variety of consequences. In cultures where out-of-wedlock childbearing is becoming minimally tolerated, increased male migration may lead to more rural female-headed households if women decide to have children in the absence of a husband. However, as households that depend on female wages for support tend to be among the poorest, this could have negative consequences for rural poverty. Where bearing children outside marriage is unacceptable for women, unmarried women may simply be dependants in their families, with negative consequences for their status.

Demography changes the context within which the institution of gender is shaped. By understanding this changing context, policymakers have an opportunity to ‘follow the grain’, using policy tools to work for greater gender equity.
THE THREAT OF HIV/AIDS

HIV/AIDS is no longer the ‘invisible epidemic’, but a major health crisis that will potentially have a huge impact on rural Asia. Nearly every nation in the world is now feeling its presence and effects. In those countries affected the longest (especially in sub-Saharan Africa), life expectancy is declining rapidly, health budgets are being consumed by AIDS-related expenses, and children with AIDS fill pediatric wards.

Nevertheless, AIDS is invisible in an individual sense: HIV-positive adults go about their daily lives without symptoms for many years, introducing HIV to their spouses and other sexual partners, and to breastfed children. Without action to fight the AIDS epidemic now, rural Asians face the possibility of seeing their QOL make precipitous declines.

Asia is highly prone to the spread of HIV. Although first found in urban areas and among populations with specific high-risk behavior, HIV is making its way into rural areas, where it will find fertile ground, less hindered by some of the health care and educational weapons brought to bear against it in urban areas.

Although the most obvious impact of AIDS is on health and mortality rates, and thus on life expectancy, it can also affect many other dimensions of rural life. Because it strikes primarily adults during their most productive years rather than striking the youngest or weakest, like malaria and many other devastating diseases, it affects family income and savings, agricultural productivity, and parenting. Indirectly, it undermines the population’s access to education and to economic opportunities of every kind through its role in reducing family income.

The Asian Epidemic

Although the HIV/AIDS epidemic began later in Asia than elsewhere, it has spread rapidly. In 1999, nearly one in
four newly infected people resided in Asia, which is also home to 6 million of the estimated 33.6 million adults and children living with HIV/AIDS in the world (UNAIDS and WHO, 1998). In Cambodia, Myanmar, Thailand, and parts of India more than 2 percent of the adult population are infected. Indeed, Cambodia, India, and Thailand are listed among the United Nations Population Division’s most affected countries (UNAIDS and WHO, 1998). In the PRC, Malaysia, and Viet Nam, the number of HIV infections is rising fast. Table VI.7 shows the impact of the crisis on Asian countries. South Asia, driven almost entirely by India, has had the highest number of cumulative AIDS deaths, and the estimated number of individuals with HIV shows that the worst is yet to be felt.

Although the common assumption has been that HIV is concentrated among urban sex workers and their clients, and drug injectors, the last round of sentinel surveillance in India (UNAIDS and WHO, 1998) found that, in a study of pregnant women (usually considered to be representative of the general population), conducted in urban areas of five states, more than 1 percent were infected. Evidence of HIV prevalence in rural areas is scarce, but a recent survey of households in Tamil Nadu found that 2.1 percent of the rural population were infected, three times the rate in urban areas. Furthermore, nearly 10 percent of the population surveyed had other sexually transmitted diseases, which would enable HIV to spread more easily. Table VI.8 shows that while HIV/AIDS prevalence among low-risk populations in Asia is still quite low, high rates among the high-risk groups in both rural and urban areas in several countries—notably Cambodia, India, Myanmar, and Viet Nam—indicate that HIV is poised to spread into the general population in both urban and rural areas.

Economic, social, and cultural conditions make Asia extremely vulnerable to the spread of HIV. Factors that contribute to rural Asia’s vulnerability include high rates of multiple sexual partnering and of sexually transmitted diseases; continued widespread use of untested and contaminated blood and blood products; nonsterile medical practices such as reuse of injecting equipment without proper sterilization procedures;
Table VI.7: The Extent of HIV/AIDS in Asia

<table>
<thead>
<tr>
<th>Region</th>
<th>Estimated Number of Adults Living with HIV/AIDS, end 1997</th>
<th>AIDS Deaths (Cumulative)</th>
<th>AIDS Orphans (Cumulative)</th>
<th>Male (%)</th>
<th>Dominant Mode of Transmission</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China, People’s Rep. of China</td>
<td>400,000</td>
<td>6,400</td>
<td>720</td>
<td>94</td>
<td>IDU</td>
</tr>
<tr>
<td>Korea, Dem. People’s Rep. of Korea</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>3,100</td>
<td>490</td>
<td>110</td>
<td>91</td>
<td>Hetero</td>
</tr>
<tr>
<td>Mongolia</td>
<td>&lt;100</td>
<td>...</td>
<td>...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korea, Rep. of</td>
<td>3,100</td>
<td>250</td>
<td>&lt;100</td>
<td>89</td>
<td>Hetero</td>
</tr>
<tr>
<td>Singapore</td>
<td>3,100</td>
<td>&lt;500</td>
<td>&lt;100</td>
<td>94</td>
<td>Hetero</td>
</tr>
<tr>
<td>Southeast Asia</td>
<td>1,557,300</td>
<td>349,310</td>
<td>74,330</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brunei Darussalam</td>
<td>300</td>
<td>...</td>
<td>...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cambodia</td>
<td>120,000</td>
<td>15,000</td>
<td>7,300</td>
<td>...</td>
<td>Hetero</td>
</tr>
<tr>
<td>Indonesia</td>
<td>51,000</td>
<td>3,800</td>
<td>1,000</td>
<td>78</td>
<td>Hetero</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>1,000</td>
<td>210</td>
<td>150</td>
<td>60</td>
<td>Hetero</td>
</tr>
<tr>
<td>Malaysia</td>
<td>66,000</td>
<td>5,000</td>
<td>1,500</td>
<td>94</td>
<td>IDU</td>
</tr>
<tr>
<td>Myanmar</td>
<td>440,000</td>
<td>86,000</td>
<td>14,000</td>
<td>81</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>23,000</td>
<td>1,300</td>
<td>480</td>
<td>65</td>
<td>Hetero</td>
</tr>
<tr>
<td>Thailand</td>
<td>770,000</td>
<td>230,000</td>
<td>48,000</td>
<td>81</td>
<td>Hetero</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>86,000</td>
<td>7,200</td>
<td>1,900</td>
<td>88</td>
<td>IDU</td>
</tr>
<tr>
<td>South Asia</td>
<td>4,215,000</td>
<td>372,600</td>
<td>127,010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afghanistan</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td>21,000</td>
<td>4,200</td>
<td>810</td>
<td>...</td>
<td>Hetero</td>
</tr>
<tr>
<td>Bhutan</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>4,100,000</td>
<td>350,000</td>
<td>120,000</td>
<td>...</td>
<td></td>
</tr>
<tr>
<td>Nepal</td>
<td>25,000</td>
<td>1,700</td>
<td>750</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Pakistan</td>
<td>62,000</td>
<td>15,000</td>
<td>5,000</td>
<td>87</td>
<td>Hetero</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>6,700</td>
<td>1,700</td>
<td>450</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>Central Asia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>2,500</td>
<td>&lt;100</td>
<td>...</td>
<td>...</td>
<td></td>
</tr>
<tr>
<td>Kyrgyz Rep.</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
</tr>
<tr>
<td>Tajikistan</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>...</td>
<td>&lt;100</td>
<td>...</td>
<td>...</td>
<td></td>
</tr>
</tbody>
</table>

IDU = injecting drug users; Hetero = heterosexual contact.
Source: UNAIDS and WHO (1998)
Table VI.8: Estimates of HIV-1 Seroprevalence in Asia by Residence and Risk Group

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Capital or Major City</th>
<th>Outside Major City</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UL</td>
<td>UH</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>0.0</td>
<td>1.2</td>
</tr>
<tr>
<td>Bhutan</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Cambodia</td>
<td>3.2</td>
<td>44.4</td>
</tr>
<tr>
<td>China, People’s Rep. of Hong Kong, China</td>
<td>0.0</td>
<td>73.2</td>
</tr>
<tr>
<td>India</td>
<td>4.3</td>
<td>42.0</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Kiribati</td>
<td>0.1</td>
<td>...</td>
</tr>
<tr>
<td>Korea, Rep. of</td>
<td>0.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>0.8</td>
<td>1.2</td>
</tr>
<tr>
<td>Malaysia</td>
<td>0.0</td>
<td>29.5</td>
</tr>
<tr>
<td>Mongolia</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Myanmar</td>
<td>1.0</td>
<td>31.0</td>
</tr>
<tr>
<td>Nepal</td>
<td>0.0</td>
<td>1.2</td>
</tr>
<tr>
<td>Pakistan</td>
<td>0.6</td>
<td>3.7</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>0.2</td>
<td>1.9</td>
</tr>
<tr>
<td>Philippines</td>
<td>0.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Singapore</td>
<td>0.0</td>
<td>3.7</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Taipei, China</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>2.0</td>
<td>15.9</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>0.2</td>
<td>35.7</td>
</tr>
</tbody>
</table>

Note: These data pertain to specific low- and high-risk groups, in capitals/major cities and outside major cities. The risk codes are as follows:

UL — urban low risk; UH — urban high risk; OL — outside city low risk; OH — outside city high risk.

“Low risk” means pregnant women, blood donors, or other persons with no known risk factors.
“High risk” means prostitutes and clients, STD patients, or other persons with known risk factors.

The data for “Outside Major City” refer to some combination of areas that are rural, semi-rural, and peri-urban, as well as small urban centers. While it is intended to capture rural rates, this is somewhat difficult as inhabitants of the most remote rural areas do not generally have access to testing sites.

Data are for various years between 1993 and 1997.

Sources: US Bureau of the Census; UNAIDS and WHO (1998)
reliance on breastfeeding, which carries a 10 to 14 percent risk of HIV transmission from an infected mother to her child; low rates of condom use; low levels of education in some countries; high rates of internal migration; and extremely high proportions of the population in their sexually active years.

Rural–urban–rural migration probably contributes significantly to the spread of HIV into rural communities. Men who migrate to urban areas are without the companionship and constraints provided by their home environments, and are often exposed to the commercial sex industry, while female urban migrants may be introduced to it as service providers. Both groups may also be introduced to injecting drug use, another major source of infection in areas where HIV is well established. When they return to their rural communities, either permanently or for short visits, they introduce their newly acquired infections to their spouses and other sexual partners. A study of long-haul truckers in Thailand (Giraud, 1993) found that 86 percent of the single men and 63 percent of the married men had had commercial sex within the six months before the survey, and an estimated 3 to 5 percent were HIV-infected as early as 1991. A 1995 report by Thailand’s Ministry of Health (cited in Bloom and Godwin, 1997, p. 54) indicated that 60 percent of AIDS cases were laborers and agricultural workers, with half the reported cases in the northern provinces, primarily in rural areas.

Trucking routes serve as a major conduit for HIV transmission between nations. The population of Lao PDR is 70 percent rural, but HIV rates are highest along the northwestern trading corridor that borders the PRC, Myanmar, and Thailand (Zola, 1993), whence the spread to rural areas is inevitable. In other nations of Southeast Asia, including Malaysia and Viet Nam, HIV/AIDS cases are concentrated among injecting-drug users, and the need to intervene with this group to contain the spread of HIV remains (World Bank, 1997a).

Table VI.9 shows projected rates of HIV infection in three Asian countries. While Thailand is expected to succeed
in bringing down infection rates by 2010, both Cambodia and Myanmar can expect to see dramatic increases in infection rates.

### Impact of HIV/AIDS on QOL

Treating HIV/AIDS imposes a heavy economic burden. Notwithstanding the inaccessibility of the expensive (approximately US$16,000 per person per year) drug ‘cocktails’ currently used to treat those in wealthy industrial countries, the cost of detecting HIV infection and treating its clinical manifestations, for example, pneumonia, tuberculosis, diarrhea, and fever, is significant and well in excess of per capita public expenditures on health care in Asia. In addition, access to health-care centers is extremely limited in many areas, and transportation costs for those seeking care can consume a nontrivial share of household income.

Perhaps even more important than the direct medical costs of AIDS, however, are the indirect costs embodied in the loss of income and output among those affected. Because heterosexual sex is the dominant transmission category for HIV, AIDS tends to affect working-age adults disproportionately, thereby greatly exacerbating the economic burden imposed by the medical care costs associated with the disease (Bloom, Bloom and River Path Associates, 2000). While few estimates of the macroeconomic impact of the

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### Table VI.9: Projected Rates of HIV Infection in Cambodia, Myanmar, and Thailand

<table>
<thead>
<tr>
<th>Year</th>
<th>Cambodia</th>
<th>Myanmar</th>
<th>Thailand</th>
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<tr>
<td>1990</td>
<td>1.27</td>
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<td>0.58</td>
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<tr>
<td>2000</td>
<td>2.53</td>
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<tr>
<td>2010</td>
<td>2.86</td>
<td>2.85</td>
<td>0.73</td>
</tr>
</tbody>
</table>

Sources: Data for Cambodia and Myanmar from the US Bureau of the Census International database. They are estimated using the iwgAIDS model. The projections for Thailand are the medium intervention scenario published by the National Economic and Social Development Board, Thailand.
Prospects and Challenges

As those Asians with HIV begin to develop AIDS, Asia will begin to feel the economic impact. For example, observing that traditional Lao PDR farmers depend heavily on labor inputs, Zola (1993) anticipated that the spread of AIDS among young men and women would require children and older family members to take up the tasks abandoned by AIDS victims. As skilled and experienced farmers die, the tasks they once performed will be accomplished with less skill, if at all, reducing households’ already scant economic resources. Likewise, as women’s energies are directed toward caring for ailing family members, their household tasks will be delegated to the very young or the very old, or will be neglected altogether.

Pitayanon et al. (1997) analyzed the impact of an adult AIDS death on the economic well-being of rural households in northern Thailand. They found that the average yearly income of a household that had experienced an HIV/AIDS death was 66 percent of that of a comparable household that had not experienced such a loss. Furthermore, the direct medical care cost for each HIV/AIDS patient was equivalent to about six month’s worth of the average household’s income. A significant minority of the households also experienced social discrimination, including loss of employment of other household members and children being forced to leave school. Many households were able to cope with their economic losses by drawing upon their savings or by selling assets, but the poorest 52 percent saw a reduction in current household expenditures, and 29 percent claimed that this reduction had a serious effect on their welfare. Most noteworthy, their expenditures on food

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and beverages dropped by 42 percent. About 45 percent received subsidies from institutions other than the family, although HIV/AIDS-related illnesses are not covered by private health insurance and employers’ health insurance, so claims were often made by reporting some other cause of death.

Opportunities for Action

Asian policymakers are generally unprepared for the spread of AIDS (Bloom and Godwin, 1997). Thailand alone has taken early and aggressive action to confront the epidemic and reduce its impact. This effort has led to substantial success in slowing the spread of the disease: HIV prevalence among Thai military conscripts dropped after a national campaign to promote condom use and reduce commercial sex (World Bank, 1997a). Nonetheless, by 2000 almost one million Thai children will have at least one parent with HIV (Brown and Sittitrai, 1995). In many other Asian countries, AIDS is not a policy priority, despite its devastating potential. Unless this changes, they will not be able to undertake timely and effective action to prevent the spread of HIV/AIDS or to deal with its consequences.

Many Asian countries will need to bolster the social protection mechanisms afforded to those infected with or affected by HIV (Pitayanon et al., 1997). Possible policy responses include improving the access by the poor to free or subsidized health care and basic social services, and initiating government-sponsored campaigns against discrimination. As the burden of HIV infection grows, government resources alone may be insufficient, and community resources will have to be mobilized to provide social and financial support for those with HIV and their families. Throughout Asia, an effective response to the epidemic will depend greatly on building support and compassion in the community.

In countries with limited access to health services, community response can be a major determinant of care and economic survival. Recent observations in the Chiang Mai area of northern Thailand indicate that the area’s long history of
enlightened government and Buddhist self-determination have facilitated the development of community support networks. For example, the Clear Sky project, established to provide mutual support and home visits for AIDS patients, has expanded its scope to include the creation of job opportunities and advocacy for community health issues and for community development in general. Collaborating with groups of farmers, environmentalists, and women, the project is bringing together groups that have never communicated or worked together before, in order to destigmatize HIV/AIDS and provide social and material support for each other.

Prevention and Treatment

Once policymakers decide to act, the first issue they face is how to prioritize among the various options available to them. Information is the most effective weapon against HIV, as people can avoid infection through changing behavior. While policy cannot change basic human instincts, campaigns that promote awareness of the disease, combined with improved access to preventive measures such as condoms, will reduce the spread of HIV significantly. Many of the most affected areas of Southeast Asia have relatively high education levels and access to mass media, both of which enhance the effectiveness of public health education efforts. In one particularly effective undertaking, Cambodia’s military has developed a peer education program about HIV. Early results show that condom use is up 16 percent and that visits to brothels fell 40 percent in one year (United Nations, 1998).

It is essential to ensure that good-quality condoms are widely available. Medical personnel must also have the training and equipment that they need to support appropriate behavior, including condom use. Furthermore, medical staff must have the appropriate training and equipment so that they do not make the epidemic worse: clean needles, sterile techniques, and an accurate understanding of HIV/AIDS transmission and treatment are essential.
Policymakers often focus on the conventional distinction between preventing HIV infection and providing AIDS care. There is a substantial economic imbalance between the two, with the cost–benefit ratio being in favor of prevention. Thus the tendency to ‘write-off’ those already infected is increasing. Not only is this utterly unacceptable on humanitarian grounds, but probably also on pure economic grounds, because relieving pain and suffering and extending productive lives is of great private and social economic value. This neglect also fosters a sense of hopelessness that conspires to keep people living with HIV invisible, making it even more difficult to motivate and mobilize effective prevention efforts.

In many wealthy countries the use of anti-retrovirals is pushing back the earlier surge of AIDS deaths. These scientific advances are impressive, but their costs are well beyond the reach of the developing world. An alternative approach is to prevent or treat the opportunistic infections associated with AIDS by using Bactrim and antifungals and implementing preventive therapy for tuberculosis. Also promising are low-cost, short-course drug therapies for preventing perinatal transmission. However, these approaches require the development of logistic infrastructure that is still not affordable in many places. Other promising possibilities involve strengthening the clinical management of AIDS; developing home care and community care programs; and developing initiatives that address social ostracism, stigmatization, and discrimination (Bloom and River Path Associates, 2000).

The long gestation period of the HIV virus has enabled policymakers in many Asian countries to ignore the full costs of the disease. While more research to evaluate the extent and impact of the epidemic in Asian countries is critically needed, policymakers must act as quickly as possible to stem the spread of the disease. The experience of Thailand, where massive public health and information campaigns have had a dramatic effect in controlling the epidemic, proves that if policymakers do indeed make HIV/AIDS a priority, then ameliorating its long-term impact is possible. While AIDS has traditionally been viewed as an urban problem, its rapid spread in rural areas
places many more Asians at risk, and the difficulty of reaching less educated, more isolated rural inhabitants presents a serious challenge for governments.

Many successful campaigns have involved partnership between the State and NGOs. Business, however, is a third partner, with a vital role to play. Because of the impact of AIDS on adults, business has a natural interest in protecting its customers and staff. It also has vital skills in marketing, needed to make prevention messages effective in changing behavior, and distribution, both to spread information to remote areas and to increase condom availability. Some Asian businesses are already involved in the fight against AIDS, but the potential is huge for their wider and more effective deployment (Bloom, 2000; Bloom, Bloom, and River Path Associates, 2000; Bloom, Rosenfield, and River Path Associates, 2000).

THE CONTEXT OF DEVELOPMENT IN RURAL ASIA

The world is currently undergoing a period of rapid technological, economic, and social change. Rural Asia will become increasingly tightly interconnected with the urban and global economies. The following major dynamics are likely to have a huge impact on the way rural Asians live:

- Globalization
- Democratization
- Decentralization
- The knowledge and information-technology revolution

These are not unrelated processes. For example, information technology has driven economic globalization, while many believe that globalization and democratization are connected. Decentralization, meanwhile, deepens and strengthens democracy, allowing people more control over their lives, encouraging initiative, independence, and enterprise.
Globalization

The integration of national economies is occurring rapidly, as international trade and capital mobility increase, and cross-border labor movements continue. The cost of transportation and communication is falling, while barriers to trade, such as tariffs, foreign exchange restrictions, and quotas, are being reduced.

For rural areas, globalization has a number of implications. First, urban and international centers draw labor out of rural areas into industrial or service jobs. Workers also cross borders. East Asia, for example, has seen significant inflows of labor, often rural, from poorer neighboring countries (Bloom and Brender, 1993; Bloom and Noor, 1997; Findlay et al., 1998). While migration will continue to be vital to improving Asian QOL, policymakers should not underestimate the need for action to ensure that migrants form a mutually beneficial relationship with the receiving society. Migrating workers need to learn new skills and to be able to update them in a rapidly changing economy. Migration also increases social pressures and can have health consequences through the increased transmission of communicable diseases (see the discussion of HIV/AIDS above).

Globalization also seems to be transforming the landscape and character of rural life, making the rural–urban divide much less fixed and definable. Dick and Rimmer (1998) note that some production is moving to the peri-urban areas of Asia, when it becomes cheaper to bring production to rural workers than rural workers to urban work sites. Agriculture is also increasingly integrated into the global economy, as farmers grow traditional food crops for the world market or shift into cash crops like vegetables and cut flowers. Viet Nam—with new liberalization policies—has become the world’s third largest exporter of rice. This diversification offers higher incomes, but also increases risk, through exposure to fluctuations in global prices or dramatic global economic shocks.

Few countries seem likely to attempt to reverse global integration, so policymakers must consider ways of protecting
their economies from the negative aspects of globalization by, for example, spreading risk both across individuals and over time. Saving helps individuals and communities weather economic shocks and loss of income, as does increased access to credit. As mentioned elsewhere, in rural areas, NGOs that provide credit could be transformed into savings institutions. However, local initiatives can soon be overwhelmed by the scale of a serious crisis. Crop failures, natural disasters, or economic crises can quickly overwhelm local savings institutions, as all members are affected at the same time. Ideally, risk needs to be shared internationally, through more complex insurance mechanisms. Transnational policymaking organizations, such as the Association of Southeast Asian Nations, should consider creating insurance-based safety nets that operate across large regions or are continent-wide. Doing so would mitigate the risks of globalization and lessen the burden on areas hardest hit by shocks.

Labor standards also need to be set at a transnational level, avoiding a ‘race to the bottom’ where countries lower standards in order to compete in the trade arena. How the establishment of labor standards affects QOL in developing countries depends upon the nature of the standard and whether the standard is inherently distortion-reducing or distortion-creating. For example, a prohibition on child labor will improve well-being if child labor is forced and exploitative, as is often (some would say always) the case; it could conceivably diminish well-being in situations where families find that they need to rely on the labor of their children in a difficult and insecure economic environment (Bloom and Noor, 1994; Basu, 1999).

Health and workplace safety standards are also linked to QOL. Workers may be uninformed about the long-term risks that their work entails and unable to make informed choices about where to work. Even if they understand the health and safety risks, they may have no alternative in the absence of other jobs. International labor standards can help address this problem, although it is important to ensure that the social benefits exceed the social costs of the regulations. International donors and other agencies are in the best position to carry out
research on the impact of labor standards on labor markets and economic performance and competitiveness. It is essential that this kind of information be gathered to promote the kind of standards that ensure a better QOL in the context of flexible and competitive markets, which are also essential for improving QOL. It is also important to recognize the long history of contributions that organized labor has made to QOL among many of today’s wealthy industrial countries. This contribution has occurred via the constraints worker organizations impose on capricious (and counterproductive) behavior by employers, through collective bargaining to improve workers’ wages, hours, and working conditions, and through the threat effect of potential labor organization on terms and conditions of employment.

Another policy prescription that would enhance rural Asia’s development possibilities is promoting freer markets, which, while not specifically a rural issue, would bring benefits to the rural sector. In this respect, the continued barriers to capital mobility and lack of openness are problems that many Asian nations need to address. According to the 1998 Competitiveness Index (World Economic Forum, 1998), while countries such as Republic of Korea, Malaysia, and Thailand all fare above average on competitiveness among the more than 50 countries surveyed, they rank much lower than average on a number of the individual components of the index linked to economic openness, such as tariffs and quotas, hidden import barriers, and capital controls. The PRC, India, Indonesia, and Viet Nam also fare extremely poorly on these measures.

Increased openness does, of course, carry risks such as those associated with the transmission of financial malaise, but these can be dealt with through strong global and national economic institutions. Sustainable development requires that the positive potential of globalization be realized and that its downside risks be minimized (Yasuf, 1999). Creating stable governance structures that are committed to promoting openness as well as insuring that those most vulnerable to the effects of the global economy are protected is an essential task for policymakers.
Democratization

The move toward democracy is one of the most important international developments of the late 20th century, with more than half the world’s population living in democratic regimes for the first time in history (Freedom House, 1997). This is a positive trend in terms of QOL insofar as democracy offers people increased freedom and control over their own lives.

The movement toward democracy is not irreversible, of course. While economic growth is not a necessary or sufficient condition for consolidating democracy, it is enormously helpful (Haggard and Kaufman, 1995). Disenchantment with economic performance may overwhelm new democratic systems, convincing some sectors to turn toward authoritarian solutions, although this has not as yet happened as a result of the recent Asian crisis.

Democratization in Asia has generally been driven by urban areas. In part, this is because urban workers and the middle classes withdrew their support from the old regimes, but it also reflects the continued lack of rural organization in many countries and an adherence to traditional forms of politics. This represents a serious long-run problem for rural Asia, especially as the percentage share of rural Asians continues to decline (see Table VI.2). Political systems may become even more biased toward urban areas, unless rural organizations develop a more sophisticated relationship with the new democratic structures.

Rural industrialization policies will increase the congruence of rural and urban interests, but rural political parties will need to work to reinvent themselves and develop a broader base for representing rural interests. There may be common ground between rural movements and urban groups interested in environmental quality, for example. The strong links many urban Asians feel with their rural roots (as shown by the flow of remittances) may offer another opportunity for building rural–urban coalitions.

The heavy responsibility for protecting and nurturing democracy lies with the donor community, as well as domestic
actors. Technical assistance should be provided to strengthen
democratic institutions and build capacity for policymaking
within them. Doner and Laothamatas (1994), for example,
argued that the low level of party institutionalization in
Thailand hampers the political system’s ability to address
infrastructure and human capital development needs. In the
absence of progress in institution building, the ability of the
systems to respond to public needs is weakened.

Decentralization

Decentralization—which is closely linked to
democratization—attempts to ensure that those who are
affected by policies are closely involved in making them, or at
least have more influence over elected decision makers.
Proponents of decentralization argue that it increases the
efficiency of the public sector, as local actors exert pressure on
the use of resources. They also believe that local actors are
often pushed into a more active role by the realization that
there is insufficient capacity to meet their demands centrally.
According to Smoke and Lewis (1996), for example, Indonesia’s
efforts to achieve fiscal decentralization were the result of local
and regional demands for infrastructure that the central
Government simply could not fulfill.

Some of the criticisms of decentralization are pertinent
when thinking about the future of rural Asia. First,
decentralization can exacerbate regional inequalities: empirical
evidence for a number of countries including Thailand shows
that large cities tend to subsidize other parts of the country,
and Prud’homme (1995) suggested that a likely result of fiscal
decentralization would be to concentrate growth in a small
number of urban centers.

Second, decentralization relies on there being sufficient
capacity for local management and decision making. Rural areas
often experience shortages of officials with technical skills, and
improving capacity quickly can be difficult. However, technical
assistance, performance evaluations, and incentives all help
overcome these deficiencies (Smoke and Lewis, 1996) and, ultimately, leave a rural area stronger and more self-reliant than before the decentralization process started. Decentralization does not allow central authorities to immediately withdraw. Especially during a transitional phase, they have vital roles as a facilitator, supervisor, and guarantor of minimum standards.

Rural localities also face the problem that economies of scale make it difficult for them to maintain high-quality decentralized structures. Central and eastern Europe’s experience has shown that decentralization can leave health and education services underfunded and underprovided in small communities (Bird et al., 1994). Asian nations should therefore consider ways of combining the advantages of national and local systems, perhaps by putting national provision under local management.

Information Technology

New information technologies (ITs) have the potential to transform rural life. In education, the Internet links remote institutions to the global knowledge commons. Computers offer the opportunity to standardize curricula; provide information resources quickly, efficiently, and cheaply; and mitigate teacher shortages through distance-learning programs. The Internet also offers teachers in remote areas the opportunity to develop relationships with colleagues in other schools, to maintain their links to professional bodies, and to access in-service training.

In rural Asia, primary education is now well established. But to diversify their economies and develop capacity to cope with the challenges brought by globalization, democracy, and decentralization, rural areas will need more people who have received a quality secondary or higher education (Task Force
on Higher Education and Society, 200017). IT and the Internet can make a particularly significant contribution to these more advanced forms of education. Economies of scale make it difficult to deliver specialist curricula at the local level. Networked IT will allow small secondary schools to remain viable, while allowing more people to receive a higher education without the need to travel.

Technology also offers many new possibilities for producing and protecting good health. For example, IT can be used to conduct more thorough and effective health surveillance. Relevant and up-to-date information allows better control over the spread of communicable diseases and other health problems. It also improves efficiency by permitting better drug inventory control. Finally, health-care workers can gain access to offsite medical information and personnel, thereby improving diagnostic and referral systems.

While the possibilities the new technologies offer are great, the danger exists that developing countries or less developed areas within will suffer from a growing knowledge gap. The need for infrastructure in the form of electricity and telephony will require a high level of expenditure, which may be beyond the reach of some areas. However, demand is likely to be strong for a technology that offers rural areas new connections.

Recently, a South Asian Internet workshop considered the importance of new technology to rural areas. It noted that, while India is leading the way in Internet capacity (over 800,000 users), this is mostly urban based. All South Asian countries are held back by lack of bandwidth and need to encourage private Internet service providers (ISPs) to develop in a telecommunications market that has traditionally been dominated by government monopolies. It called for local infrastructure projects to go hand-in-hand with initiatives to generate local Internet content, through partnerships among

17 See www.tfhe.net for more details and for copies of the Task Force report (Task Force on Higher Education 2000)
government, private, educational, and NGO actors, driven by local entrepreneurs. As Imran Rasheed, director of the Bangladeshi Learn Foundation, commented: “with appropriate synergies in rural communities, we have shown how environmentally-aware education among primary school students can be coupled with the use of computers and the Internet in villages” (Rao, 1999).

Grameen Communications, meanwhile, is attempting to diversify rural economies through a Village Internet Program. Initially, the organization will provide Internet kiosks for villages, but it expects borrowers will start to buy their own kiosks after the pilot period. Technological capacity is being provided by underemployed university graduates, with the scheme explicitly aiming to bring greater information to rural markets, thus allowing farmers to better price their produce, and strengthen local systems of democracy. Grameen Communications will benefit from the Grameen Bank infrastructure, and also from links with Grameen Phone. It offers borrowers a cellular phone, which they can use to generate income, through the Village Payphone Scheme. The Internet kiosks will offer E-mail, Internet access, word processing using Bengali fonts, printing and publishing services, Internet phone usage, computer classes, and income opportunities through data entry for global customers.

As Coeur de Roy (1997) points out, the main inhibition for IT development is lack of vision on the part of leaders, many of whom have low levels of computer literacy. They often fail to see the importance and usefulness of new technologies, and maintain monopolies within the telecommunications sector or impose inappropriate taxes on services and imported equipment. Work is needed to explore the experience of pilot projects, publicize best practices, and develop appropriate models and programs for conditions that are often vastly different from those of wealthy, highly industrialized nations.

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18 www.bangladesh-web.com/learnfoundation/html/home00.html
19 See www.eb2000.org/ITPP1.htm for more details.
CONCLUSION

As policymakers chart a course for the new century, they are faced with many opportunities but also much uncertainty. Given the ongoing demographic, cultural, and political changes taking place in rural Asia, the past can provide only limited guidance for future action.

The wisdom and appropriateness of past policies and programs must therefore be examined in light of a new and uncertain future. Many traditional determinants of rural QOL, such as population growth, will operate with a different intensity. In addition, potent new influences, such as the emergence of many highly effective NGOs, a dramatic increase in the elderly share of the population, and the HIV/AIDS epidemic, are appearing on the scene. The broad context within which rural development must occur is also undergoing fundamental change because of, for example, globalization, democratization, technological change, and the knowledge revolution.

Policymakers face enormous challenges in adapting to rural Asia’s new needs and possibilities. There is tremendous opportunity for the future of the region, but considerable peril, as well. Clearly, the new challenges associated with the development of rural Asia call for new strategies. Devising these in an open and rational way is the key to a bright future for rural Asia.
Asia has achieved a remarkable feat in the past quarter century. While the population of its rural areas has grown by over 600 million people, the QOL enjoyed by rural inhabitants has held its own in most dimensions and actually improved in some. In a number of key sectors, rural areas have begun to catch up with their urban counterparts. The dramatic expansion of the rural primary school network, for example, is an investment that will have an ongoing impact on QOL over many years. Especially compared with other developing regions, the rural Asian experience is a notable success.

It is not all good news, however. The income gap between rural and urban Asia has widened, as urban Asia benefits from stronger links with the regional and world economies. And QOL is still desperately low for phenomenally large numbers of people. Roughly 750 million rural Asians live in absolute, dollar-a-day poverty, many of them living on the Indian subcontinent. Roughly half a billion lack access to safe water, as many lack access to health services, and over 1.5 billion lack access to sanitation.

Further, Asia’s recent financial and economic crisis has had a marked negative impact on rural QOL because of a fall in the demand for rural labor, declining remittances, and reverse migration. Although rural areas were slower to feel the effects than urban areas, their recovery is also likely to take more time. Change has also been slow for women, with large gender inequities a prominent blemish on the overall QOL picture and South Asia lagging particularly severely in this respect.
Asia now has the opportunity to build on the gains and address the failures. Policymakers, activists, donors, and businesses must join with local people to develop a clear vision and apply concerted effort to the most pressing problems. On their own, specific policies will not be enough. This book presents a demanding QOL framework that highlights the need for major institutional change, concerted action by a range of actors, and a renewed determination to put QOL of rural Asians at the top of the political agenda.

THE MAIN ACTORS

Government, the private sector, NGOs, and the international policy community face a changing environment. Briefly explored here are the natural opportunities through which they can react to the QOL challenges of the future.

The Role of Government

The State remains a hugely important actor in shaping an agenda for the rural sector, despite the tendency for political power to be concentrated in urban areas. The role of the State is changing, as decentralization (discussed in Chapter VI) and transnationalization shift power to levels above and below the central government. Transnationalization is part of a global trend toward the pooling of economic and political power. Economic trading blocs such as the Association of Southeast Asian Nations, NAFTA, and MERCOSUR are proliferating and, while supranational political unions such as the European Union are less common, these trends point to the value of regional governmental coordination for policies that affect sets of nations.

There are a number of areas where regional government can take action to improve QOL. Rural areas are especially...
vulnerable to natural disasters, which sometimes cross national boundaries. Environmental changes also occur regionally and globally, but have local effects when, for example, deforestation in one country increases the risk of flooding in others. Regional or global action also offers a wider base for insuring against disaster, which is important when a disaster can have an overwhelming effect on a single country’s economic and social systems.

Key aspects of future health and education agendas can also be tackled regionally. HIV, as discussed in Chapter VI, is spreading fast in Asia, because of the close links between national economies and the mobility of labor. Information for prevention can spread faster than the disease, however, especially with the combined political will of the region’s governments. Educational quality will be facilitated by regional action. Comparisons between countries will help drive up standards of basic education, while advanced education will benefit from the sharing of resources, knowledge, and faculty. Regional task forces—on AIDS, for example, or higher education—could have a major impact on Asia’s future.

There are also a number of areas in the economic environment that may be reshaped to enhance the possibilities for sound policymaking. One part of the environment that constrains the ability of rural areas to develop is exchange rates. Governments play a key role in controlling the terms of trade when they attempt to fix exchange rates. For much of the last three decades, exchange rates in a number of Asian countries have been overvalued. While this benefited the industrial sector, making the import of intermediate goods cheaper, it has limited agricultural exports and as a result has hurt the rural sector. By correcting exchange rate policy, Asian governments have the ability to remove this bias and improve the terms of trade for agriculture. The nascent recovery from the financial and economic crisis in the region is in large part a result of increased exports due to exchange rate devaluation, with agriculture playing a large role in this process, especially in the initial stages.
Globally, the role of government is being redefined, with many governments attempting to specialize in areas such as supervision, regulation, and action to correct market failures. We have not yet—and are not likely to—see the ‘death of big government.’ However, we have seen governments trying to focus on core competencies.

It is useful to unbundle two functions: financing goods and services, and providing those goods and services. Figure VII.1 illustrates four ways in which important components of QOL might be supplied and financed. Proponents of liberalization have recently argued for a shift from the upper left quadrant of the figure to the lower right, that is, from public financing and provision to private financing and provision. They argue that privatization can effectively fulfill new demands that the State is unable to provide for or fund, while at the same time providing more efficient service than state bureaucracies and satisfying the needs of people more capably and cost effectively. It can also replace state monopolies with market solutions that offer consumers increased choice.

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<td>private universities</td>
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Figure VII.1: Financing and Provision Options for Goods and Services

However, from the discussions of rural QOL, it is clear that there are options other than pure privatization, and that a role for governments continues to exist. The private sector is
unlikely to be able to provide adequately all the services rural areas require, at least in the short run. Equity, the importance of poverty alleviation, and the need to invest in the future viability of rural economies all point to government involvement. At the same time, increased private-sector involvement does make sense, with the public sector ‘jump-starting’ the market and then pulling back when the market is functioning. For example, in rural solar-energy projects the government may introduce the new technology and demonstrate in pilot projects how it can be effective. Once local demand is spurred, it may become commercially viable.

Increased privatization also results in the government having to compete with the private sector. This forces the government sector to be more responsive to consumers/citizens, to lower costs, and be more efficient. While governments are often unprepared for such competition, all countries need more agile public sectors. Policymakers must set clear QOL objectives and then look for the best, most efficient way of meeting targets.

**The Role of the Private Sector**

The role of the private sector will continue to grow in ways that have the potential to lead to better QOL outcomes, which will themselves open new opportunities for private organizations and firms. However, the private sector often has little experience in rural areas and will need to innovate and adapt if it is to deliver quality services. Practices that work in cities may be inappropriate for rural areas. For example, private utility companies may find rural clients need different billing schedules and collection mechanisms. The private sector must also learn to negotiate much thinner markets than commonly found in urban areas, although it should not be excessively hampered by governmental requirements that it provide services below cost to rural consumers.

Stimulating the rural private sector to play a role in local development is also important. Here again, there may be a
learning curve and necessary changes in practice to achieve this. For example, in the case of contracting out road construction, small rural businesses may not have the same cash flow as urban or international contractors so that they may need to be paid more often or more at the outset of a project than is typical. In addition, the rural private sector may be unfamiliar with standards for practices like contracting, so that it is important for such expertise to be developed in conjunction with either the government or other elements of the private sector.

The Role of NGOs

NGOs have been an important part of the development process, and they are poised to grow into the space left by the retreat of the State. Throughout this volume, many instances where NGOs have been vital actors in working to improve rural QOL have been highlighted. It was also suggested that there are numerous examples of activities that they perform better than governments and for which there is simply no incentive for for-profit private-sector involvement. In terms of providing social services, building social capital, and developing workable models for new policy initiatives, the role of NGOs will continue to grow. NGOs also have an essential role as advocates, often providing the only route through which the rural poor can make their voices heard.

However, the role of NGOs can certainly be strengthened. First, the relationship between NGOs and officials is often antagonistic, with mutual distrust and suspicion the order of the day. Enshrining and enforcing in law the right of NGOs to operate is an important first step in many countries. NGOs can also be helped to develop a more sophisticated understanding of QOL challenges. Capacity building, perhaps aided by governments and donors, will increase their range and effectiveness. Second, although the grassroots nature of many NGOs is clearly a strength, the development of NGO networks will help apply leverage to local successes through
loose coordination of different projects, the sharing of information, and greater opportunities for powerful advocacy.

**The Role of the International Development Community**

Lasting improvements in rural QOL also involve the international community. There are a number of specific suggestions that emerge from this study relevant to this heterogeneous group, which comprises donors, lending agencies, and other organizations.

First, international organizations often have the prestige and power to pull together new coalitions between the State, NGOs, and the private sector. They can provide a forum for dialogue to start and seed funding to ensure that new partnerships achieve early gains. Second, international organizations have a role in correcting the urban bias discussed in this volume. The Asian Development Bank, in revisiting the rural sector in the current series of studies of which this work forms a part, has taken an important step in this direction. Other lenders and donors need to follow suit. Third, the international policy community can help coordinate the activities of different parts of national government. The QOL model developed in this study is demanding because of its requirement for ‘joined-up government’, where programs and policies are sponsored across traditional departmental boundaries. Creating an environment where different ministries can build even minimal cooperation is essential, but difficult. Donors and lenders can, therefore, help by acting as coordinating bodies.
A NEW AGENDA

This volume has elaborated those key elements that must inform any attempt to develop a QOL agenda. Such a plan needs to offer both a rallying point for society at large and a unifying and coordinated framework for public, private, and civil society.

Policymakers must understand that QOL is a much broader concept than ‘income per capita’, currently used as the standard indicator of a population’s state of development. Indeed, recent evidence suggests that income growth is often only weakly associated with the fundamental improvements in their lives that most people around the world seek. A QOL perspective can provide policymakers with a deeper understanding of people’s needs and aspirations, and it underlines how investments in human and social capital are often the most effective ways to achieve income growth within the context of wider development gains.

A focus on QOL helps clarify important differences between rural and urban Asia, allowing policymakers (who are often urban-based themselves) to correct the tendency to apply policies to the countryside that are, in fact, better designed for towns and cities. Rural Asians suffer from considerably poorer QOL than their urban counterparts and, without urgent action, it is possible that they will fall further behind.

The challenge of improving QOL is not insurmountable. Compelling evidence indicates that substantial QOL benefits will arise from increasing social spending on health, education, and nutrition; developing rural infrastructure and financial institutions; promoting the involvement of rural people in the political process; and, perhaps most important, improving the status of women. If policymakers can promote links across these initiatives, then virtuous spirals can be built, in turn leading to broad QOL improvements across a number of indicators.
QOL policies and programs must be designed for tomorrow’s challenges, as well as today’s. This means understanding people’s aspirations for the future, as well as the factors that are changing the world we all live in. Policymakers must ask a fundamental question: how will rural societies (and their economies) relate to the emerging global society (and its economy)?

Rural Asia faces four particularly important challenges for the future: poverty alleviation; coping with an aging population; benefiting from globalization; and promoting gender equity. Advances on all these fronts are essential to building an inclusive rural society, able to make deep and sustainable development gains in years to come. By grasping these challenges, adopting the QOL perspective, and developing new strategies, policymakers can devise an open and rational approach to unleashing the promise of rural Asia.


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Appendix 1: QOL Indicators: Definitions and Sources

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<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
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<tbody>
<tr>
<td><strong>Indices</strong></td>
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<tr>
<td>Human Development Index (HDI) 1970, 1980, 1995</td>
<td>The HDI is based on three indicators: longevity, as measured by life expectancy at birth; educational attainment, as measured by a combination of adult literacy and the combined first-, second- and third-level gross enrollment ratio; and standard of living, as measured by real GDP per capita (PPP$).</td>
<td>Human Development Report</td>
</tr>
<tr>
<td>Gender-related Development Index (GDI) 1995</td>
<td>The GDI uses the same variables as the HDI. The difference is that the GDI adjusts the average achievement of each country in life expectancy, educational attainment, and income in accordance with the disparity in achievement between men and women.</td>
<td>Human Development Report</td>
</tr>
<tr>
<td>Gender Empowerment Measure (GEM) 1995</td>
<td>The GEM uses variables to measure explicitly the relative empowerment of women and men in political and economic spheres of activity. The first two variables are chosen to reflect economic participation and decision-making power: women’s and men’s percentage shares of administrative and managerial positions and their percentage shares of professional and technical jobs. These are broad, loosely defined occupational categories. Because the relevant population for each is different, a separate index for each is calculated and the two are then added together. The third variable, women’s and men’s percentage shares of parliamentary seats, is chosen to reflect political participation and decision-making power. An income variable is used to reflect power over economic resources. The three indices—for economic participation and decision making, political participation and decision making, and power over economic resources—are added together to derive the final GEM value.</td>
<td>Human Development Report</td>
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<tr>
<td><strong>Indices</strong></td>
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<tr>
<td>Human Poverty Index (HPI-1) Value (%) 1995</td>
<td>The human poverty index for developing countries (HPI-1) concentrates on deprivations in three essential dimensions of human life already reflected in the HDI: longevity, knowledge, and a decent standard of living. The first deprivation relates to survival—the vulnerability to death at a relatively early age. The second relates to knowledge—being excluded from the world of reading and communication. The third relates to a decent living standard in terms of overall economic provisioning.</td>
<td>Human Development Report</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor Force, Female (%) 1970, 1980, 1995</td>
<td>The labor force encompasses all men and women who supply labor for the production of economic goods and services, as defined by the UN System of National Accounts, during a specified time period. According to this system, the production of economic goods and services should include all production and processing of primary products (whether for the market, for barter or for own consumption), the production of all other goods and services for the market, and, in the case of households that produce such goods and services for the market, the corresponding production for own-consumption. Female labor force is the percentage of the total economically active population supplying labor for the production of economic goods and services that is female.</td>
<td>World Development Indicators</td>
</tr>
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### Appendix 1 (Cont.)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
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<tbody>
<tr>
<td><strong>Income</strong></td>
<td></td>
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<tr>
<td>GDP per capita</td>
<td>Male literacy rate minus female literacy rate.</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>Male gross enrollment ratio minus female gross enrollment ratio.</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>Male life expectancy minus female life expectancy. In interpreting the life expectancy gap, it is important to keep in mind that females have a biological advantage over males in life expectancy.</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>Percentage of population living at or below US$1 a day of consumption or income at 1985 prices, adjusted for PPP.</td>
<td>World Development Report</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>Percentage of population living at or below US$2 a day of consumption or income at 1985 prices, adjusted for PPP.</td>
<td>World Development Report</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>Percentage of population living below the national poverty line. National estimates are based on population-weighted subgroup estimates from household surveys.</td>
<td>World Development Report</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>Labor force in agriculture is the percentage of the labor force supplying labor to the agricultural sector.</td>
<td>World Development Indicators</td>
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### Variable Definition Source

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<tr>
<th>Variable</th>
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<tbody>
<tr>
<td><strong>Agricultural Value Added per Hectare 1970, 1980, 1995</strong></td>
<td>Agricultural value added per hectare of agricultural land (the sum of arable land, permanent cropland, and permanent pasture), measured in constant 1987 US$. Agricultural value added includes that from forestry and fishing.</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td><strong>Agricultural Value Added per Worker 1970, 1980, 1995</strong></td>
<td>Agricultural value added per worker supplying labor to the agricultural sector, measured in constant 1987 US$. Agricultural value added includes that from forestry and fishing.</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td><strong>GDP per Worker 1970, 1980, 1995</strong></td>
<td>The gross domestic product at market prices (constant 1987 US$) divided by total labor force.</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Primary Gross Enrollment Ratio 1970, 1980, 1994</strong></td>
<td>The number of students enrolled in primary education, whether or not they belong in the relevant age group for primary education, as a percentage of the population in the relevant age group for primary education.</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td><strong>Secondary Gross Enrollment Ratio 1970, 1980, 1993</strong></td>
<td>The number of students enrolled in secondary education, whether or not they belong in the relevant age group for secondary education, as a percentage of the population in the relevant age group for secondary education.</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td><strong>Adult Literacy Rate (%) 1970–1995</strong></td>
<td>The percentage of people aged 15 and above who can, with understanding, both read and write a short, simple statement on their everyday life.</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td><strong>Public Expenditure on Education (% of GNP) 1990</strong></td>
<td>Expenditure on the provision, management, inspection, and support of pre-primary, primary, and secondary schools; universities and colleges; vocational, technical, and other training institutions; and general administration and subsidiary services.</td>
<td>Human Development Report</td>
</tr>
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### Variable Definition Source

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<tr>
<th>Health</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Access to Safe Water (%) 1975–1980 (av.), 1990–1996 (av.)</td>
<td>Percentage of population with reasonable access to safe water supply, including treated surface water or untreated but uncontaminated water such as that from springs, sanitary wells, and protected boreholes.</td>
<td>World Resources Institute</td>
</tr>
<tr>
<td>Access to Sanitation (%) 1990–1995 (av.)</td>
<td>Percentage of population with reasonable access to sanitary means of excreta and waste disposal, including outdoor latrines and composting.</td>
<td>World Resources Institute</td>
</tr>
<tr>
<td>Access to Health Care (%) 1990–1995 (av.)</td>
<td>Percentage of population that can reach appropriate local health services on foot or by means of local transport in no more than 1 hour.</td>
<td>UNICEF</td>
</tr>
<tr>
<td>Life Expectancy at Birth 1970–1995</td>
<td>The number of years a newborn infant would live if prevailing patterns of mortality at the time of birth were to stay the same throughout the child’s life.</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>Infant Mortality Rate 1970–1995</td>
<td>The annual number of deaths of infants under one year of age per 1,000 live births. More specifically, the probability of dying between birth and one year of age multiplied by 1,000.</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>Maternal Mortality Rate 1995</td>
<td>The annual number of deaths of women from pregnancy-related causes per 100,000 live births. According to the Tenth International Classification of Diseases, a maternal death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the sited of pregnancy, from any causes related to or aggravated by the pregnancy or its management, but not from the accidental or incidental causes.</td>
<td>World Resources Institute</td>
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<th>Variable</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Public Expenditure on Health (% of GDP) 1994</td>
<td>Public Expenditure on health comprises the expenditure, both current and capital, by all government offices, departments, establishments, and other bodies that are agencies or instruments of the central authority of a country on hospitals, clinics, and maternity and dental centers with a major medical component; on national health and medical insurance schemes; and on family planning and preventive care.</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>Hospital Beds per 1,000 People 1970–1995</td>
<td>Number of hospital beds available per 1,000 people.</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>Calories Available per capita 1987–1989 (av.)</td>
<td>The per capita average calories available (as a percentage of need) are calories from all food sources: domestic production, international trade, stock drawdowns, and foreign aid.</td>
<td>World Resources Institute</td>
</tr>
<tr>
<td>Wasting 1980–1989 (av.)</td>
<td>Wasting indicates current acute malnutrition and refers to the percentage of children between the ages of 12 and 23 months whose weight-for-height is less than 77 percent of the median weight-for-height of the reference population of the US National Center for Health Statistics.</td>
<td>World Resources Institute</td>
</tr>
<tr>
<td>Stunting 1980–1989 (av.)</td>
<td>Stunting, an indicator of chronic undernutrition, refers to the percentage of children between the ages of 24 and 59 months whose height-for-age is less than 77 percent of the median.</td>
<td>World Resources Institute</td>
</tr>
<tr>
<td>Economic Freedom Index 1995, 1996</td>
<td>The Economic Freedom Index examines nine positive measures of economic freedom (trade policy, taxation policy, government consumption of economic output, monetary policy, capital flows and foreign investment,</td>
<td>Heritage Foundation</td>
</tr>
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Appendix 1 (Cont.)

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<tr>
<th>Variable</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Economic Freedom Index 1995, 1996</td>
<td>Banking policy, wage and price controls, property rights, and deregulation) and one negative measure (the size and scope of a country’s blackmarket or underground economy). The higher the score, the more government interference and less economic freedom in the economy.</td>
<td>Heritage Foundation</td>
</tr>
<tr>
<td>Political Rights 1973, 1980, 1995/96</td>
<td>Political rights enable people to participate freely in the political process, which means the system by which the polity chooses the authoritative policymakers and attempts to make binding decisions affecting the national, regional or local community. In a free society, this means the right of all adults to vote and compete for public office, and for elected representatives to have a decisive vote on public politics. The survey rates political rights on a seven-category scale, 1 representing the most free and 7 the least free.</td>
<td>Freedom House</td>
</tr>
<tr>
<td>Civil Liberties 1973, 1980, 1995/96</td>
<td>Civil liberties are the freedom to develop views, institutions, and personal autonomy apart from the State. The survey rates civil liberties on a seven-category scale, 1 representing the most free and 7 the least free.</td>
<td>Freedom House</td>
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**Access to Information**

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<th>Variable</th>
<th>Definition</th>
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<tbody>
<tr>
<td>TV Sets per 1,000 People 1970–1995</td>
<td>The estimated number of television sets in use, per 1,000 people.</td>
<td>World Development Index</td>
</tr>
<tr>
<td>Daily Newspapers per 1,000 People 1995</td>
<td>The number of copies distributed of newspapers published at least four times a week, per 1,000 people.</td>
<td>World Development Index</td>
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### Variable Definition Source

#### Environment

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<th>Variable</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Annual Deforestation (%) 1981–1985, 1990–1995</td>
<td>Annual permanent clearing of forestlands for shifting cultivation, permanent agriculture or settlements; it does not include alterations such as selective logging.</td>
<td>Human Development Report</td>
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</table>

#### Infrastructure

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<th>Variable</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Roads Paved (%) 1990, 1996</td>
<td>Percentage of roads that have been sealed with asphalt or similar road-building materials.</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>Telephone Main Lines per 1,000 People 1970–1995</td>
<td>All telephone lines that connect a customer’s equipment to the public switched telephone network.</td>
<td>World Development Indicators</td>
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#### Agricultural Input

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<th>Variable</th>
<th>Definition</th>
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<tr>
<td>Annual Fertilizer Use (kilograms per hectare of cropland)</td>
<td>Refers to the application of nutrients in terms of nitrogen, phosphate, and potash. The fertilizer year is 1 July–30 June; data refer to the year beginning in July.</td>
<td>World Resources Institute</td>
</tr>
<tr>
<td>Tractors Average Number 1991–1993</td>
<td>Tractors generally refer to wheeled and crawler tractors used in agriculture. Garden tractors are excluded.</td>
<td>World Resources Institute</td>
</tr>
<tr>
<td>Harvesters Average Number 1991–1993</td>
<td>Harvesters refer to harvesters and threshers.</td>
<td>World Resources Institute</td>
</tr>
<tr>
<td>Irrigated Cropland (%) 1970–1995</td>
<td>Cropland includes land devoted to temporary and permanent crops, temporary meadows, market and kitchen gardens, and land temporarily fallow. Irrigated land refers to areas purposely provided with water, including land irrigated by controlled flooding.</td>
<td>World Development Indicators</td>
</tr>
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</table>

GDP = gross domestic product; PPP = purchasing power parity.
Data on various QOL indicators are generally available at the national level and are not often available broken down into rural data and urban data. Thus, the following approach was used to evaluate QOL in rural Asia:

\[ I^N_t = (1 - RS_i) I^U_t + RS_i I^R_t \]  

where \( I^N_t \) represents the QOL indicator at a national level for time \( t \), country \( I \); RS is the rural share; \( I^U_t \) is the indicator in urban areas; and \( I^R_t \) is the indicator in rural areas.

It is assumed that the urban and rural indicators can be expressed as follows:

\[ I^U_t = I^U + \varepsilon^U_t \]  
\[ I^R_t = I^R + \varepsilon^R_t \]

where \( I^U_t \) represents that part of the indicator for urban areas that is common across countries and \( \varepsilon^U_t \) represents that part of the indicator for urban areas that is idiosyncratic and differs across countries. Similarly, \( I^R_t \) represents that part of the indicator for rural areas that is common across countries while \( \varepsilon^R_t \) represents that part of the indicator for rural areas that is idiosyncratic. \( \varepsilon^U_t \) and \( \varepsilon^R_t \) are assumed to be randomly distributed.

Substituting (2a) and (2b) into (1) yields

\[ I^N_t = (1 - RS_i)(I^U + \varepsilon^U_t) + RS_i (I^R + \varepsilon^R_t) \]  

which can be rewritten as:

\[ I^N_t = I^U + (I^R - I^U)RS_i + (\varepsilon^R - \varepsilon^U_t)RS_i + \varepsilon^U_t \]  

Appendix 2: Statistical Model Used to Make Inferences about Rural QOL from Data on QOL at the National Level
If
\[ \nu_t = (\epsilon^u - \epsilon^r)RS_t + \epsilon_t \]  
(5)

then
\[ I^n_t = I^u_t + (I^r_t - I^u_t)RS_t + \nu_t \]  
(6)

The intercept of regression equation (6) is an estimate of the indicator for urban areas, while the slope represents the difference between the urban and rural values of the indicator. The error term, \( \nu_t \), captures the variation across countries and is taken to be random.
Appendix 3: Qualitative Perceptions of Quality-of-Life Trends in Rural Asia

This Appendix explores the components of the QOL in parts of rural Asia from the vantage point of rural Asians. Using results from focus groups in villages in the People’s Republic of China (PRC), India, and Thailand, the Appendix examines what is important to individuals in determining whether they feel that their lives are improving or deteriorating.

Focus Groups as a Measure of the Quality of Village Life

To make meaningful comparisons of QOL across time and space, objective measures must be used. Such indicators as per capita income, school enrollment, and access to sanitation serve as benchmarks to evaluate the pace of change and progress in QOL for different countries and subpopulations within them. Essentially, these are objective measures of a subjective phenomenon: any measure of the QOL posits what a good life implicitly comprises, and by definition incorporates the value judgments of the researchers and agencies designing the measure. If QOL measures are to be used as the basis of development policy, then policymakers should at least contemplate the way that the actual subjects of such policies, in this case the inhabitants of rural Asia, define what is important to them in terms of QOL. The success of, or support for, such policies may depend on making the kinds of improvements that people want.

Focus groups are a means of gathering information employed mainly by sociologists and anthropologists in order to obtain more detailed and nuanced opinions and attitudes than permitted by traditional methods such as survey analysis. Typically, groups of between 8 and 12 individuals are brought together for sessions lasting up to two hours to participate in a moderated conversation on a specified topic or set of related topics. With the aid of a skilled moderator, participants are
comfortable talking and are willing to contribute. The moderator can also probe responses that address conceptually interesting points of the research (Morgan, 1998). Unlike many in-depth interviews or closed-ended surveys, the questions are left open to allow for the spontaneous emergence of information that the researchers may not have anticipated. In addition, respondents are not forced to answer using categories of the researchers’ choosing, and this is likely to generate new information as researchers learn how the subjects of research think about particular topics, and what aspects of those topics are important to them. Generally, the moderator uses a written set of questions as a guide to the discussion.

Focus groups are ideal for exploring such issues as QOL, where researchers are uncertain about what people’s responses are likely to be (although they will have hypotheses about them). This is not to suggest, however, that focus groups are entirely open, unstructured discussion sessions. While the moderator allows the conversation to follow unanticipated paths, its underlying structure is based on the question posed by the research team. Thus the moderator steers the conversation so as to direct participants away from topics that are less central, and keeps the discussion focused on issues that are clearly related to the aims of the study (Stewart and Shamdasani, 1998).

The conversational nature of focus groups is crucial to the process for several reasons. First, it allows participants to follow through on an idea at greater length than is normal in attitudinal research. The advantage is that the research team can gain a more complete view of attitudes toward a given topic. In addition, the team can see how subjects weigh various elements of their opinions, that is, what matters more, what is secondary, and why. For example, certain topics may be on the agenda for the group discussion, but whether these arise without prompting or are the result of a question asked by the moderator gives the researchers clues about the importance of the topics for respondents.

A second benefit of putting people together for a discussion is that they can react to what others are saying. Again, this is critical to understanding the complexity and nuances of
issues. By talking together about a specific topic and sparking thoughts, ideas may arise that a single individual would not have conceived (Rubin and Rubin, 1995). Participants’ reactions to what others are saying allow researchers to track the pattern of associations triggered by specific issues, unconstrained by predetermined responses as in questionnaires. By obtaining a sense of the multiple dimensions of a topic and the way that respondents may qualify or elaborate their ideas, the researchers gain a rich sense of the respondents’ interpretations in relation to a specific topic.

Focus groups are almost always audiotaped and often videotaped. The transcripts from focus-group sessions provide a written text that is the source of raw data. With transcripts in hand, researchers analyze what was said, how often, by whom, how they said it, and the level of agreement within the group, to develop a meaningful interpretation. The production of transcripts gives focus groups some advantages over other forms of qualitative research that rely on individual researchers’ notes and observations, in that other researchers can work with the data produced in focus groups at a later date and verify findings (Knodel et al., 1984). Because of the quantity of material generated, using everything that was said is rarely feasible, so researchers generally choose and interpret themes that illuminate how the results are related to the original goals and hypotheses of the study (Stewart and Shamdasani, 1998).

Focus groups have a number of advantages that make them particularly suitable for studying QOL in rural Asia. In contrast to previous definitions, it is argued in this volume that numerous direct and indirect factors influence QOL, including income and access to education and health care. Researchers can take advantage of focus groups to see how closely Asian villagers’ own perceptions of their lives fit with this argument and what factors they see as determining their QOL. Also, because focus groups are a way to gather information orally, they are an excellent way to investigate illiterate populations that might be excluded from regular survey analysis. This is especially salient for certain groups of rural Asians such as women and the poorly educated.
The greatest disadvantage to focus groups is that the number of participants tends to be small and collected nonscientifically (i.e., by convenience sampling), which limits their extrapolation to whole populations (Stewart and Shamdasani, 1998). Thus, these groups are inappropriate for certain types of data collection, such as where exact frequencies of behavior or attitudes are important. However, for the current study the purpose is to understand existing attitudes and opinions about what influences QOL and what behavior might follow from that.

Twelve focus groups were conducted in total. The three countries, PRC, India, and Thailand, were chosen because they have large populations (especially India and the PRC) and represent different geographical areas of the region. In addition, they present different characteristics in terms of political and economic trajectories: India is a democracy of long standing; Thailand has undergone a fitful, but ultimately probably successful, process of democratization in the 1990s; and the PRC has substantially liberalized its economy without any substantial moves toward political democracy. These differences are likely to influence respondents' opportunities for participation in social and community life, which may affect their perceptions of the quality of their lives.

Regions or provinces were selected that are among the poorest in each nation, although economically higher- and lower-end villages were sought within those in which to conduct the focus groups. The size of villages ranged between 800 and 3,000 inhabitants. In India, the focus groups were carried out in the states of Rajasthan and Uttar Pradesh; in Thailand in two northern villages in the Chiang Mai region and in the central region (the Nakhon Pothom district, roughly 1.5 hours from Bangkok—on the assumption that the effects of the Asian financial and economic crisis would be more visible there due to the proximity to Bangkok); and in western PRC in Ganzu Province; one of the Ganzu villages was predominantly Han Chinese while the other had a substantial Hui Muslim minority.

The selection criteria for participants in the focus groups were designed to include a range of ages, gender balance, and,
where applicable, occupational diversity such as farm and nonfarm work by the landed and the landless. The exception was in India, where the groups were conducted in single-gender sessions because of social strictures against women interacting with men in public. The groups were conducted by the Harvard Institute of International Development in conjunction with national research counterparts, who were responsible for selecting the groups and moderating them in the local language or dialect. In the PRC, the work was conducted by Dr Wang Jiayi of Northwest Normal University; in India by a team headed by Dr Ajay Mahal from the National Center for Applied Economic Research; and in Thailand by Dr Napaporn Havanon of Srinakarinwirot University.

All sessions followed the same question guide, which opened with the general issue of whether participants felt that they and their communities were better- or worse-off now than 10–20 years ago, and in what ways. This revealed what aspects of QOL were most pertinent to people without prompting them to speak about specific issues. Discussion then included the following topics: the possibility of upward mobility within the village; education (including girls’ education); health; paid labor; strength of civil society; political participation; the environment; and the effects of the Asian financial and economic crisis.

Quality of Life Improvements

Evidence is presented here concerning improvements in QOL in Asian villages over the past two decades, especially in terms of infrastructure, education, and social participation. Also considered are gender issues and whether men and women have benefited similarly from changes. The next section examines the negative aspects of the process of development, such as changes in social and family relations, increased inequality or more pollution, and how villagers see these as influencing their QOL.
The Role of Infrastructure

Respondents in all three countries saw at least some improvement in their lives, although the extent of and reasons for the advances differed. Particularly significant was the variety of causes cited, especially given the predominant role that increased income has traditionally played in concepts of QOL. In both India and Thailand, improvements in infrastructure were central to people’s evaluations of how their lives have improved; in the PRC, people also viewed infrastructure improvements quite positively.

Where they have been provided, roads, water, and electricity have made an enormous difference in the QOL of rural Asians, and where such infrastructure is lacking were noted as indispensable elements of future improvement. Roads connect people to goods and services, make life more convenient, and potentially increase people’s incomes by linking them to jobs and markets where they can sell their products. In those villages without schools, roads were credited with dramatically reducing the time children take to reach school, making it more likely that they will attend. Health care also becomes more accessible. Regardless of whether clinics existed in the villages, villagers associate better care with larger, often urban, communities, and therefore perceive a reduction in travel time to health facilities as an important improvement.

Better transportation, including roads, has given villagers more access to nonfarm jobs such as construction and, very importantly from the respondents’ point of view, to markets. A comment typical of the focus groups in all three countries was

“Just 5 years ago, before the road was built, we had to wait for the middleman to buy our vegetables. We didn’t know the prices and they only gave good prices to those who knew them. Now it is in our control. If they don’t offer good prices, we go to market.” (Woman farmer, central Thailand)
Access to water has also had multiple benefits. In addition to the simple convenience of having water either in the home or at nearby communal sites, participants noted the health benefits of a reduction in waterborne diseases. A spillover effect was noted in northern Thailand. There, a focus-group member suggested that children’s household labor was no longer needed to perform the arduous task of fetching water and that this allowed more children to attend school. In India, a participant highlighted a gender-specific benefit:

“[Before] we only had one well for the entire village. Women had to draw water from these wells with the help of a rope. It was a taxing and difficult job.” (30-year-old homemaker, Rajasthan)

Electricity has facilitated improvements in water supplies beyond the home and in irrigation, permitting an increase in the number of crops that can be harvested yearly, with an apparent concomitant improvement in incomes and standards of living. It has also brought a range of consumer goods to which participants now have at least some access, especially televisions and refrigerators. The focus groups had mixed views about the benefits of such items. On one hand, they saw television as opening village life to the world—every group mentioned news from national and international sources as a benefit—and as providing entertainment. On the other hand, participants, particularly older ones, saw it as eroding cultural and communal values. In India, participants charged that television programs were killing the Hindu culture and posed a contradiction between the culture of purdah and the lifestyles and behavior shown on television. They also, in a criticism common to parents the world over, cited the danger of children paying too much attention to television instead of studying. In the PRC, Muslim participants objected to the values promoted by television, such as showing women uncovered.
The Importance of Education

A second common source of satisfaction and a key ingredient of QOL is access to education. This was one of the first issues many participants mentioned when asked about improvements in their lives over time, and they clearly view the quality of education as a determinant of present and future QOL. The issue of education is among the most complex, because it has multiple influences on QOL and brings into stark relief beliefs about village life and social mobility.

There was broad consensus across all the groups that investing in education for one’s children is both necessary and a duty for parents as the only way to ensure a better future for the next generation. Perceptions of higher-quality schooling today in many of the groups, and the better access provided by new infrastructure, mean that people feel themselves better-off in this respect. The reasoning behind the need to invest in education highlights a set of beliefs about what matters for QOL and the possibilities of achieving it. First, they clearly saw education as the key to improving life by moving their children out of farming and into other sorts of jobs. Participants cited three arguments in this respect—the backbreaking nature of farm work, its declining viability in economic terms, and the lack of access to sufficient land:

“Leaving the land means happiness because the land is so arid and the work is so hard.” (Hui male farmer, PRC)

“We want jobs for boys, especially government jobs. We are not satisfied with farming our land. It is a strenuous activity, in heat and in cold. We do not want our children to suffer like us.” (speaker 1)

Jobs can help them become independent.” (speaker 2)

“Anyway there is very little farmland to cultivate.” (speaker 1)

“One needs a minimum of 8 hectares (100 bighas) for agriculture to yield substantial earnings.” (speaker 2)

“We also want to be like you.” [speaking to interviewers] (speaker 3)
“We want our children to carry pens and pads like you and work in offices.” (speaker 1) (Dialogue between 30-year-old female self-cultivator, 65-year-old homemaker, and 35-year-old female self-cultivator, Uttar Pradesh, India)

“My parents did farming and they did not want that for us because it is so hard ... so none of my siblings are farmers, and there isn’t enough land anyway.” (speaker 1)

“Yes, for those who do farming, if you have to rent land, it is better to switch to other jobs.” (speaker 2) (Young female service worker and middle-aged male tailor and former farmer, Nakhon Pothom, Thailand)

Participants linked social mobility to education. Not only are the jobs available to the educated more prestigious, but also they bring notable economic benefits. In the PRC, for example, participants noted that the newer brick houses, as opposed to the ones made from mud, belonged to people who were better educated. Such mobility, however, takes place outside the village. In every place visited, participants told the same story. Attaining such jobs without going to larger, urban centers is impossible. Opportunities for the well educated within the villages were extremely limited, suggesting that people perceive limits to the long-term viability of village life. People encourage and aspire for their children to leave, even though they would prefer that it was economically possible for them to stay. Indeed, as the comments of one older man in central Thailand underscored, while education is important, it cannot make up for the lack of local opportunity:

“It doesn’t matter how much education they get, if they stay, they can’t get ahead. Somebody who has no education and leaves [for work in the city] is better off than someone who has an education and stays. Of course, somebody with an education who leaves is in the best position.”

These attitudes, and the out-migration of the economically active population they provoke, suggest potential changes in the social structure of rural Asia. In particular, growing dependency ratios could mean increasing economic vulnerability, especially among the old. The participants in the
focus groups had the attitude that the investments parents make in their children’s education are an insurance policy and that they counted on their children to take care of them, even if they were living apart. While a clear sense of the changing dynamics and balance of power between poorly educated parents and better educated children emerged in all the groups, typified by such comments as “Everybody wants their children to be bosses, but they wind up being the bosses of the parents,” and “Children listen less and less these days,” no group conveyed an imminent feeling of crisis. Rather, the dominant sense was a low-level anxiety about whether their children would fulfil their duties, combined with the hope that they would.

Participants in two northern Thai villages were especially eloquent on this issue. One older male laborer said, “We want them to think of having to repay their parents [for educating them by caring for the parents]. We want them to think that way, but they don’t.” In the other group, a participant remarked, “You have to force children to take care of them [parents]. We have to teach them they have to do that,” suggesting that the older system of intergenerational responsibility is breaking down and has to be relearned. In the PRC, the realities of an urbanizing society and the implications for parental care may be changing long-held preferences and practices in relation to children. Participants noted that in cities, in contrast to villages, many parents now preferred girls and would educate them because they were easier to control and more responsible about taking care of their parents.

Educational investment is undertaken in a context of lower fertility in the PRC and Thailand. As a way to ensure that parents are taken care of when they have fewer children, educating the latter is important. In addition, fewer children mean that families are more likely to be able to take on the expense of educating them. Rural fertility rates in Thailand fell rapidly in the 1970s (Knodel et al., 1984), and this has probably changed the experience and meaning of childhood. Just as declining fertility rates during the 19th century in the industrial West gave rise to Victorian notions of childhood as a separate period in the life
course characterized by innocence, the need for protection, and a greater value placed on children, a similar process appears to be under way in parts of rural Asia.

Thai participants suggested that children today obtain less practical knowledge than before, such as cooking or caring for their siblings, and that parents now safeguard children’s time for studying and do not encourage their working in farm activities. A decade and a half ago, Knodel et al. (1984) also found that parents, in contrast to an earlier generation, placed more emphasis on play for children. In the PRC, the notion that children are now much more ‘precious’ than they used to be, because of the Government’s one-child policy instituted in the early 1980s, arose repeatedly during group discussions. As a result, participants noted that people now wanted to take better care of their children and sought better medical care and more education for them. Again, as a result of the focus on education, children are released from domestic labor to attend to their studies, giving new content and meaning to the period of childhood.

**Gender and Education**

Education is a key ingredient in QOL because of the opportunities it affords and its intrinsic benefits for human actualization. In Asia, gender has frequently been a determining factor in whether people have access to these benefits; girls have been shut out, particularly in rural areas. Although systematic, comparative data measuring educational achievement and attainment for males and females in urban and rural areas have not been collected, Table A3.1 highlights the disparity women have experienced in different Asian nations. Focus-group moderators asked specifically about the importance of girls’ education. An interesting finding was that the kinds of opportunities available to women, their family responsibilities, and social policy in the participants’ societies seem to influence the response patterns found.

The Indian states of Uttar Pradesh and Rajasthan have among the worst educational indicators in the country for
Table A3.1: General and Rural Discrepancies in Educational Indicators, Selected Asian Countries and Periods

<table>
<thead>
<tr>
<th>Country</th>
<th>Indicator</th>
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<tbody>
<tr>
<td>Bangladesh</td>
<td>Strong male–female and urban–rural literacy differences.</td>
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<td></td>
<td><strong>1991 literacy rates by residence:</strong></td>
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<tr>
<td></td>
<td><strong>Urban</strong></td>
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<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>Cambodia</td>
<td>Female enrollment falls sharply at the secondary school level and accounts for only 13% of higher education enrollment. Substantial urban–rural differences in girls' enrollment, that is, lower secondary enrollments of 48% in Phnom Penh to 32% in rural Svy Rieng.</td>
</tr>
<tr>
<td>China, People’s Rep. of</td>
<td>Few differences in primary school enrollment by gender in urban areas, but pronounced differences in rural, mountainous zones.</td>
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<tr>
<td></td>
<td><strong>1991/92 enrollment for ages 7–11 by gender and residence:</strong></td>
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<tr>
<td></td>
<td><strong>Urban</strong></td>
</tr>
<tr>
<td></td>
<td>Male</td>
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<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>Nepal</td>
<td>Large rural–urban enrollment gaps by gender, which are exacerbated with school progression.</td>
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<tr>
<td></td>
<td><strong>Enrollment rates by age, gender, and residence for 1981:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Urban</strong></td>
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<tr>
<td></td>
<td>53</td>
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<tr>
<td></td>
<td>45</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Differential in male–female literacy rates more pronounced in rural areas.</td>
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<tr>
<td></td>
<td><strong>1981 literacy rates:</strong></td>
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<tr>
<td></td>
<td><strong>Urban</strong></td>
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<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
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<tr>
<td>Philippines</td>
<td>In contrast to many countries in Asia, at early ages women do better than men in many conventional educational indicators such as literacy and enrollment. However, by higher education men outpace women. Urban and rural gaps remain; for example, the 1990 literacy rate was 97% for urban females, but 90% for rural females.</td>
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<tr>
<td></td>
<td><strong>Age 6–15 enrollment rates (in 1990):</strong></td>
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<tr>
<td></td>
<td><strong>Urban</strong></td>
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<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>Male–female educational differences are much less marked than elsewhere in South Asia; girls have caught up with and, on some measures, surpassed boys. Urban–rural differences are also smaller.</td>
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<tr>
<td></td>
<td><strong>Enrollment rates by age, gender, and residence for 1981:</strong></td>
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<tr>
<td></td>
<td><strong>Urban</strong></td>
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<td></td>
<td>Male ages 5–14</td>
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<td>Male ages 15–19</td>
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<td>Female ages 5–14</td>
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<td>Female ages 15–19</td>
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</tbody>
</table>

Sources: ESCAP (1995a,b, 1996, 1997a–c); Fiske (1995)
women, and are generally viewed as extremely traditional on most gender-related matters. Rural women fare especially poorly: the 1991 literacy rate of rural women in Rajasthan, 11.6 percent, was by far the worst in the nation, and was not much better in Uttar Pradesh at 19 percent (ESCAP, 1997d). About half the women in the focus groups in these provinces were illiterate, especially those in the higher castes. Nevertheless, there was general support for educating girls to the same level as boys among both men and women, although only the women offered justifications for doing so. Upper-caste women, for whom notions of Hindu female propriety preclude work after marriage (Basu, 1992), saw education for girls in terms of their marriageability and its utility in helping women fulfil their traditional roles of household management and motherhood:

"Now boys demand educated girls for marriage."
(speaker 1)

"They insist on seeing only educated girls prior to engagement." (speaker 2)

"Even if they do not want them to work later on, educated individuals are certainly sensible and understanding. Educated girls are able to manage the household and finances better." (speaker 1) (Exchange between 35-year-old Brahmin female self-cultivator and 65-year-old Jat homemaker in Uttar Pradesh)

"There are many examples [of women working] from our village. Moreover, even if they do not find jobs, they will look after their children well." (36-year-old Yadav [landowning caste] stitching teacher)

In contrast, many of the lower-caste and unscheduled-caste women defended girls’ education in terms of work opportunities. This is not surprising, because they tended both to be more highly educated and literate, as well as employed. Positive discrimination policies by the Indian Government to provide free education and books for lower-caste girls has also worked to improve the educational level of women in this group, because it removes the cost factor from parents’ decision making. The participants noted some barriers to girls’ education
regardless of caste. When secondary education was not available in the village, this became a larger obstacle for girls than for boys because of parents’ greater reluctance to have daughters commute or live elsewhere to attend school.

In Thailand, the focus-group participants, both men and women, uniformly supported equal education of girls, but based on very different arguments than those proffered by the Indian focus groups. They claimed that there should be no distinction between boys and girls in terms of how much education they receive, and asserted that the decisions should be based on the child’s intelligence. They advanced several arguments for this. First, the structure of family responsibilities would not suggest giving priority to sons’ education. Culturally, Thailand differs from the PRC and India in that daughters rather than sons are responsible for taking care of their parents. Daughters typically do so, and are considered better at taking care of their parents, even from a distance, than sons, who are seen as needing to be the primary earners for their own families. Thus, it makes sense from the point of view of intergenerational resource transfers that girls receive an education. Second, Thai participants saw girls as less physically capable of doing agricultural work. Hence, they argued, girls must have the training to shift out of agriculture into the better-paid service and manufacturing sectors where differences in strength matter less in terms of pay scales. Such an argument makes a great deal of sense in the context of the rural Thai labor market, where women typically earn less, but only because they do less strenuous jobs. When they perform the same jobs as men, pay scales are equal.

In contrast with the discussions in Indian villages, Thai participants expressed the expectation that adult married women would be employed. Thailand has no cultural injunctions against women operating in the public sphere. Such expectations are surely linked to the investment in education that parents are willing to make for girls. Although the data are somewhat contradictory about whether a gender gap in educational enrollment exists at the primary level in Thailand—compare, for example, figures given by the World Bank (1997b)
with those from ESCAP (1998)—the sources coincide in finding no gender gap at secondary level, and microstudies of rural northern Thailand (Mingsarn et al., 1995) suggest that parents do educate their children equally, regardless of gender. In contrast to India and one of the villages in the PRC, the responses of Thai villagers were consistent with the prevailing lack of gender differences in education, and were in keeping with statistical trends in the country.

In the PRC, responses about the importance of girls’ education were mixed. In the more remote Hui village situated four hours from the provincial capital of Lanzhou, participants expressed amusement at the question. “Of course girls do not need as much education as boys,” they said. “Girls are only going to get married and that is what will assure their futures.” In contrast, they see boys as having to be able to support their own families as well as their parents, so that educating them makes sense. In this context of whom to educate, many participants talked about the high costs of education in terms of school fees, books, and clothes. Given that they viewed the decision to send children to school as one that incurs significant monetary costs, and that they saw little return to educating girls, their discounting the idea of gender equality in education is not surprising.

At the other site of Chinese focus groups, a more prosperous Han Chinese village nearer to the capital and with more interaction with the city, there was much more support for girls’ education. This was expressed in the context of changing lifestyles in the light of economic development, of the encroachment of urban mores, and of general cultural change. Participants made a connection between education and duty or responsibility to family by stressing the value that is increasingly attached to girls:

“In cities, girls are more valuable than boys now because girls are more well behaved and listen better.”
(70-year-old Han Chinese woman farmer)

The implication of this typical comment is that in some contexts, where traditional mechanisms of control over
children, especially sons, are breaking down and where children’s fulfilment of the intergenerational bargain is open to question, investing in more easily controllable daughters makes sense because the return is likely to be greater.

Cultural changes also probably account for attitudinal changes that include ideas about girls’ education. In this village, general agreement existed among the participants of both focus groups that the past 20 years had meant greater changes for women than for men, in particular for their way of thinking. The following exchange, in response to the question about girls’ education, offers a justification for educating women based on their being independent and on new ways of thinking about the position of women:

“Women’s ideology has changed a lot, much more than men’s.”

“20 years ago, it would have been impossible for us [women] to sit here and talk with you. We can’t depend very much on our husbands. We too can drive a tractor; we can support ourselves. We can make our minds up to do better.” (Older male farmer and middle-aged woman farmer)

Overall, the discussions across several cultures about girls’ education help to understand existing attitudes and why they change. Where promoting education for girls responds to economic and cultural imperatives, as in Thailand and among lower-caste Hindu women, both attitudes and behavior coincide in ways that make it more likely that girls will be sent to school. In contrast, in a remote traditional area of the PRC, there are neither economic incentives nor cultural support for girls’ schooling, and respondents did not favor their equal education. Perhaps most interestingly, we see tentative changes taking place where economic incentives and cultural attitudes are shifting. In rural areas of the PRC more closely linked to urban centers, villagers were beginning to question their beliefs about girls because they saw both declining returns from boys’ education as the traditional system of parental support started to fray, and greater opportunities for women.
Improving QOL Through Changing Opportunities for Political and Economic Participation

Focus-group results revealed that social capital and participation in political and economic life are key elements of individuals’ perceptions about their QOL. In the PRC and Thailand, political and economic liberalization was clearly linked to improvements in perceived QOL. Participants in Thailand explicitly mentioned increased democracy as something that had changed their lives and communities for the better over the past decade. Indeed, participants in one of the northern villages cited greater democracy as the first aspect of how their lives had improved, and the resulting spontaneous and animated discussion was somewhat surprising. In all of the Thai groups, the participants indicated that they could make their voices heard by public officials, and in contrast with the predemocratic transition period, they were now able to disagree openly and publicly with village leaders.

The discussions echoed the conclusions of much of the academic literature on a positive correlation between education and social participation. For the Thai participants, higher levels of education were intimately linked to more participation and a greater voice in the political process. They viewed educated people as having the skills to make good logical arguments and as being willing to express their opinions and to talk more at public meetings, behavior that respondents linked to better quality of public life. In addition, they noted that educated citizens cannot be as easily tricked or misled by politicians, and that increased education thus has a salutary effect on public life by keeping political leaders honest.

The PRC presents the clearest example of how major institutional changes can have profound effects on QOL. Without exception, the single most important factor cited by the Chinese in improving their lives was the 1978 economic reforms pushed forward by Deng Zhaoping. For the villagers interviewed, these reforms were a watershed that improved their lives enormously: primarily in an immediate economic sense, but also indirectly by increasing the likelihood that they
could educate their children, thereby improving women’s lives, fostering more effective political participation, and improving social relations within the village.

The reforms loosened the system of collective farming and allowed individuals to work private plots of land, decide what to grow, and determine whether to market or consume their output. Participants in both villages saw these changes as important in the most basic of ways: giving them more to eat. Older respondents in particular commented on the extent of hunger that had existed in the villages before the reforms. Villagers also spoke about the increased income that had resulted from the change in land policy, and pointed to evidence all around of the differences, such as construction of better houses and school buildings, better furniture (such as real beds instead of mats), and more efficient heating fuels.

In addition to providing income through the ability to shift into higher-priced crops, the reforms freed up time that people used to spend farming collective land. This extra time has allowed some people to shift into nonfarm, remunerated activities. Such activities may be more in keeping with their skills and preferences for nonfarm work. One middle-aged woman spoke of having established a sewing business: “I was always a good seamstress, but before the reforms I had no time at all to sew. I had to work on the collective.”

Many women saw themselves as having benefited especially from the reforms. “I think we women gained the most from the reforms. We can now rely on handicrafts; we can earn money ourselves.” Men and women nodded in agreement with this sentiment. Thus, changes in broad institutional structures such as the economic system can have an important indirect effect on gender ideology by opening up an economic space for women. Investigators have repeatedly shown that women’s ability to earn their own income promotes a shift from traditional attitudes toward more egalitarian ones.

One of the most appreciated results of increased wealth was being able to afford to educate children. Although the much poorer inhabitants of the Hui village still saw education as a major expense, even there it was more within reach than
previously. As elsewhere, the indirect benefits of education were apparent to Chinese villagers: educated farmers were more successful because they could read about the most efficient ways to use fertilizer to obtain the highest yields.

The Chinese villagers also credited the reforms with improving social life and participation. Strikingly, they saw the shift to a cash economy as improving community relations. This is in complete contrast to the focus groups in India and Thailand. In both Chinese villages, participants commented that under the collective agriculture system neighbors had closely monitored each other’s behavior for evidence of shirking responsibility, and people were always suspicious of not receiving their fair share of benefits. Community relations were poor as a result. Under the new system, respondents said they were more willing to help their neighbors and that interactions had definitely improved. The change is one of locus of control which, in the Chinese context, translates into the idea of choice. One of the recurrent notions participants used to express their sense of how life had improved was freedom of choice. Farmers can choose what to plant; no one tells them what they have to grow. Whether they succeed or fail is an outcome of their own making. The seamstress can decide what to do; it is her choice. This ability to choose was a strong component of Chinese perceptions of improved QOL.

At the community level, Chinese villagers also indicated that they had more control over the decisions that affect their lives. The role of local Communist Party officials has changed as a result of the economic reforms. Because the Party’s reward structure has changed, officials have more incentives to listen to citizens. Focus-group participants noted that the job of local party leaders used to be mobilizing cadres, but now they are responsible for economic growth and development. As a result, respondents found the leaders to be much more open to suggestions from villagers and to listen more. These officials have lost the power to control and silence villagers through their power to assign collective land. As a result, participants said they felt freer to object and question officials, and that they had more ability to influence the decisions that were taken locally.
The Quality of Life in Rural Asia

The Trade-offs and Limits to QOL Gains

While the focus-group results revealed marked improvements in many rural Asian settings, they also indicated that residents of these areas perceived limits as to how much their lives had improved, trade-offs inherent in the process of development, and areas of marked deterioration. Some of these are country- or region-specific and somewhat exceptional, such as the AIDS crisis in Thailand. Others are more general, such as environmental problems or a lack of access to employment opportunities. Still others are common across countries, but the way in which they influence QOL depends on the institutional context. This section explores those aspects of QOL that participants felt had declined or stagnated.

The HIV/AIDS Crisis in Thailand

The only focus groups conducted where respondents claimed that their QOL had actually deteriorated were those in Chiang Mai, northern Thailand. The source of pessimism for these Thai villagers was clear: the HIV/AIDS epidemic. This is the area of the country most affected by the disease. Poignant statements such as, “Nowadays, people are supposed to live to 80, but now the children are dying before their parents,” underscore what HIV/AIDS means in rural Thailand and show that inhabitants see this health crisis as one of the central determinants of their QOL. In central Thailand, participants acknowledged that AIDS was a problem in response to the moderator’s questions, but it did not arise spontaneously, presumably because its severity there was not of the same magnitude as in the north.

There are indications that the problem is at least slowing down. In all the villages, participants attributed the problem to an earlier lack of knowledge about how to prevent transmission of the disease. The quality and frankness of discussion about the mechanisms of infection were impressive. Participants also noted that most of the current infections were not recent. They thought that as these members of the
community died, the problem would decline. These comments also suggest that the Thai government’s public education campaigns with AIDS prevention messages have succeeded in reaching people in rural areas.

Effects of the Money Economy

In many ways, the disappointments and frustrations that focus-group participants expressed were negative features of some of the improvements they have realized. A good example of this is greater integration into the cash economy. While people in each country appreciated the increase in material goods, they also, to varying degrees, perceived a negative aspect to their economic development. Although access to goods makes people’s lives easier, and in many ways more productive, it also changes perceived needs. New purchased necessities may replace what was formerly produced at home. For economists this is an improvement, because people are essentially consuming higher-quality products for the same or a lower real price. However, the dependence on cash and the need for continued employment to keep consuming these products produced a sense of insecurity among focus-group participants. In particular, the shift from a subsistence farm economy to one more integrated into the market created worries about continued ability to afford this new lifestyle, and a sense of unease about no longer being self-sufficient. Tractors have replaced cows or buffalo in the fields and “eat gasoline instead of grass” (northern Thai focus group); chemical fertilizer must be purchased in lieu of cow dung; and parents have a duty to educate their children to a much higher level than was true of an earlier generation.

In general, people seemed to understand this as a trade-off, and one that they were ultimately willing to accept. Generally, fears were most pronounced in Thailand, perhaps because the effects of the Asian financial and economic crisis have been deepest there, and slow growth and the possibilities of falling into debt seemed the greatest. In central Thailand, participants noted that electricity meant that people had to earn cash to pay their electricity bills and for appliances, and
worried about what would happen if they could not pay. In addition, in all the Thai groups, some villagers mentioned the high cost of living today compared with the past. Even when they noted that they, of course, earned more today than in the past, having to pay for these new ‘necessities’ meant that they did not necessarily feel richer. However, in terms of QOL, despite the trade-offs, participants believed that they were on the winning side of the equation—when asked if they would prefer to return to the past, they emphatically stated that they would not.

The groups also credited the increased monetarization of village life with affecting the quality of social ties. In Thailand, a strong sense emerged that it was destroying the solidarity of communities, with a concomitant decline in QOL:

“10 years ago, everyone would work on the rice harvest together, but now you have to pay money for people to come work with you. People used to look out for each other; now they can’t. Everyone has to look out for himself.” (Older male farmer, northern Thailand)

“People are very selfish today, not so honest, very concerned about money. It used to be after the harvest we would all gather in the temple. Now no one has time, they just do things on their own; they have to work.” (Middle-aged woman, central Thailand)

In India, such sentiments of community breakdown were less widespread and were confined to men, perhaps because they are the ones who operate in the public sphere:

“People are busy taking care of their interests so that community interests have been ignored. If I decide to clean the village streets, there will not be a single person who will help me. I alone cannot achieve much ... Cooperation has declined a lot among us. Farmers are constantly expanding the size of their individual holdings by cutting off the edges of the public road—it has become so narrow. If there is still some togetherness, it is because we have been like this all our lives.” (27-year-old private school teacher, Uttar Pradesh)
“Social life has changed, become self-centered, and community systems have seen a decline. People have less time for each other.” (49-year-old government teacher, Uttar Pradesh)

As noted earlier, the results from the PRC were the opposite of this. Every focus group there noted the improvement in social relationships among village inhabitants. With the reduction of the collective farming system and its related social control, Chinese villagers felt more able to offer voluntary assistance to their neighbors when no one was forcing them to do so. The contrast between countries underscores the important role of institutional context in structuring behavior.

The Limits of Participation

While it has been demonstrated that increased possibilities for influencing local decisions affecting communities are an important aspect of QOL, there are also limits that raise crucial policy issues. First, results from Thailand suggest that in the context of decentralized decision making, communities’ power to influence what happens to them may be circumscribed when higher levels of jurisdiction determine policy outcomes. Both the villages in the Nakhon Pothom district of central Thailand were negatively affected by landfills close to them. Focus-group participants noted the smell, the vermin, and the health fears they experienced. Powerful district-level forces had pushed the project through, and by the time the communities realized what was happening it was too late to do anything about it. Respondents noted how powerless they had been in the face of this situation; yet these same participants had discussed how much influence they had in local decision making.

If individuals’ ability to determine what happens to them and their communities enhances their QOL, then the level at which power actually resides and the kind of links individuals have to those levels must be considered. In the case of the landfill, no vertical links appear to have existed between the
villagers and district-level organizations that might have been able to coordinate local opposition to the project. In the current policy environment, which favors decentralization as a means of empowering local communities, different levels of government frequently influence local outcomes. In the absence of establishing effective organizational ties and flows of information between levels, decentralization is unlikely to be the solution to the problem of how to turn control over to citizens.

A second example of the lack of effective participation and the limits of simple legal changes was raised by participants in India, where experiments have been made with increasing local political power through the panchayati or village council system. These councils are elected locally to represent villages at the district and state levels. To promote greater female participation and empowerment, 30 percent of council seats have been reserved for women. In the Uttar Pradesh village in our sample, the presence of a woman as head of the village council (sarpanch) initially gave the appearance of female empowerment; however, in reality this sarpanch had no political power whatsoever, as the following discussion shows:

“There is no one who listens to a woman [reference to woman sarpanch].” (35-year-old female construction worker)

“My husband does everything. He does not allow me to go outside. He does not let me go to the panchayat meetings.” (sarpanch)

“There is a system of purdah and usually we are not allowed to speak in the presence of men.” (35-year-old farmer)

“Our husbands take the responsibility for communication [with the outside world].” (40-year-old milk vendor)

In the men’s focus group in this village, participants defended the sarpanch’s husband, whom they would view as violating their beliefs about the role of women and not fulfilling his duty to protect his wife if he allowed her to participate. As a result, government-mandated quotas for female representation have led to the presence of titular heads, with little real
advancement in the status of women. This example illustrates the limits of legal change in the face of entrenched cultural beliefs. While carrying out the letter of the law, male villagers circumvent its spirit, which contradicts their ideas about the proper place of women in the social order.

Importance of Policy Implementation for QOL

In analyzing advances in QOL, situations in which expected outcomes did not occur need to be investigated. This highlights the importance of implementation. One of the clearest findings from the focus groups was that the provision of infrastructure can have dramatic effects on QOL. However, simply constructing roads, for example, does not guarantee that farmers or other rural inhabitants will have access to markets—there have to be markets to access. Similarly, training villagers for alternative jobs to farming is likely to have little effect in improving their QOL if such jobs are unavailable.

These points were raised by focus-group participants in the poorer of the two northern Thai villages and in India. In the communities in northern Thailand, some farmers were diversifying into mushrooms, watermelons, and cut flowers, while the homemakers’ associations were struggling to develop lucrative projects such as handicrafts or canning. The desire to find a better source of stable income than rice farming was the source of much discussion in the villages among inhabitants and local elected committees. These local committees were preparing proposals for government-run, competitive social funds, where villages could secure low- or no-interest loans for pilot projects. A strong fear of the villagers was the government’s likely lack of follow-through for any such project, thereby imperiling its success. Citing examples of previous government programs, such as training for handicrafts, that had failed to lead to jobs because crucial information about how to market the products successfully was lacking, they saw the government’s inability to fully implement programs as being negatively related to their QOL. One of the homemakers’ associations, desperate to find new ideas for
possible projects, could only reject common schemes such as canning or handicrafts because they knew of similar nearby examples where these had failed, and were consequently afraid to apply for loans.

This criticism of the government as providing only training or advice for projects was similar to complaints in India that technical job training in fields such as welding had failed to lead to jobs because the government did not help people find them, and was not committed to hiring them. This is particularly interesting from a policy perspective. Simply empowering people by giving them training and expecting them to flourish on the basis of more proximate control may not be enough to improve QOL. At least in these small rural communities, participants voiced enough doubts about local capacity to suggest that, even in a democratic political culture, decentralization is an insufficient strategy for generating new forms of employment. At the very least, longer periods of technical assistance and more follow-up in implementation may be necessary if local beneficiaries are to experience the benefits of rural employment development schemes.

*Rising Inequality*

Although discussions of increasing village inequality as the result of development surfaced only in the PRC, the participants’ interpretation of this was somewhat unexpected. Many analysts of Chinese economic reforms have pointed to growing inequality, both across regions and within communities, as one of the costs of liberalization. Focus-group participants, even in a remote western village, were aware that other regions, particularly in the south, had developed much more quickly and had been given priority by the government. They felt that Ganzu had fallen behind, that the benefits of the reforms had been much more apparent in the first 10 years, and that the State was neglecting them. As a result, they foresaw fewer prospects for continued improvements in their lives and expressed a sense of unfairness that they were being neglected.
In great contrast to this was opinion about local economic inequality. Respondents in all the Chinese focus groups defended growing inequality on the grounds of individual merit. It is fair, they claimed, that some people get richer than do others because it is due to hard work, education, and intelligence. Because they saw local success as dependent on individuals’ capacity and initiative, they supported the widening gap between residents as just, and as a reward for those enviable personal traits.

On Balance: The Preference for Rural Living

One of the most interesting findings of the focus groups was the respondents’ perspectives on the relative merits of village life compared with city life. The mixed nature of the discussions highlighted the difficulties many communities in rural Asia face. On the one hand, the conversations revealed a strong attachment to the way of life that has existed and a recognition of the benefits that come with village life. On the other hand, virtually all the participants saw the city as the only viable future: even if they did not want to leave themselves, their hopes for their children centered on their being able to leave the villages.

The positive aspects of village life primarily centered on the quality of social interactions; the lower level of environmental degradation; and the fact that as amenities come to the villages, the advantages of cities over the countryside diminish. Even if many people saw social ties as deteriorating in the villages, participants in all three countries still found them far superior to those prevalent in the cities. They frequently described cities as cold places where people do not know their neighbors, have little contact with others, and do not help each other. “Many urban facilities have now become commonplace in the villages, such as septic tanks.” This comment from a male Indian worker in response to whether he preferred urban or rural life suggests that the decreasing infrastructure gap between villages and cities raises the appeal of village life.
Participants were also very aware of urban pollution problems and saw this as an area where village life was far superior to cities.

“We prefer the village life. There is a more healthy atmosphere, fresh air, good people, compassion. In urban areas there is a lot of pollution.” (32-year-old homemaker, Uttar Pradesh)

“Lanzhou is not better than here. It is very polluted. I heard that on the news.” (Middle-aged woman, Ganzu Province)

Even when pollution problems exist locally, the participants still saw the cities as worse-off:

“Earlier, there was hardly any pollution in the village. Now there are problems because of uncovered sewage lines. When they are blocked there is no one to repair them. However, I will grant that pollution is still less in rural areas compared with cities.” (35-year-old male grower, Rajasthan)

The problematic aspect of village life centers on its future prospects. The focus groups expressed two main fears in this connection: the lack of enough land to support farmers (especially pertinent in India), and the lack of good nonfarming jobs. Cities are seen as the only solution to villagers’ hopes for the future. Many older respondents could not envision themselves moving to cities, both because they felt comfortable where they were, and because a frank assessment of their skills meant that their prospects in cities were extremely limited. However, generally their aspirations were for their children to obtain enough education and to work in the cities.

“Let’s face it, good jobs are available only in the cities. In the village one can only become a teacher ... I know that doctors also come and live in villages. Engineers solve problems. Doctors take care of the sick. These jobs are good because they impart knowledge to others. Even teachers are not bad. But good jobs are available mostly in the cities.” (30-year-old homemaker, Rajasthan)
This is the essential dilemma facing development policymakers. How can rural areas sustain their populations in ways that enhance QOL? In many cases, villagers prefer their lives and would ideally stay in the villages and keep their children there, but they see no future in the villages. This pessimism is related to decisions such as out-migration to cities, which puts stresses on urban centers and leaves rural areas with disproportionately dependent populations.
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