

III PATTERNS AND TRENDS IN THE QUALITY 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

Unit of Analysis	Single Point in Time	Several Points in Time
Rural	Access to health care (%) Access to sanitation (%) Percentage of people under the national poverty line	Access to safe water (%) Population growth (%) Population share (%)
National	Calories available per capita Economic Freedom Index GDP per worker in 1987 constant US\$ Gender Empowerment Measure Gender-related Development Index Human Poverty Index (%) Newspapers (per 1,000 people) Paved roads (%) Percentage of people under the national poverty line Population below \$1/day (%) Population below \$2/day (%) Public expenditure on education (% of GNP) Public expenditure on health (% of GDP) Stunting Wasting	Adult literacy rate (%) Agricultural value added per hectare Agricultural value added per worker Annual deforestation rate (%) Civil Liberties Index Earned income share for women (%) Enrollment gap GDP per capita in 1987 constant US\$ GDP per capita in PPP\$ Hospital beds (per 1,000 people) Human Development Index Infant mortality rate Irrigated cropland Labor force gap Labor force in agriculture (%) Labor force, female (%) Life expectancy Life expectancy gap Literacy gap Maternal mortality rate Political Rights Index Primary school enrollment ratio Radios (per 1,000 people) Secondary school enrollment ratio Telephone mainlines (per 1,000 people) TV sets (per 1,000 people)

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*⁸. 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

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

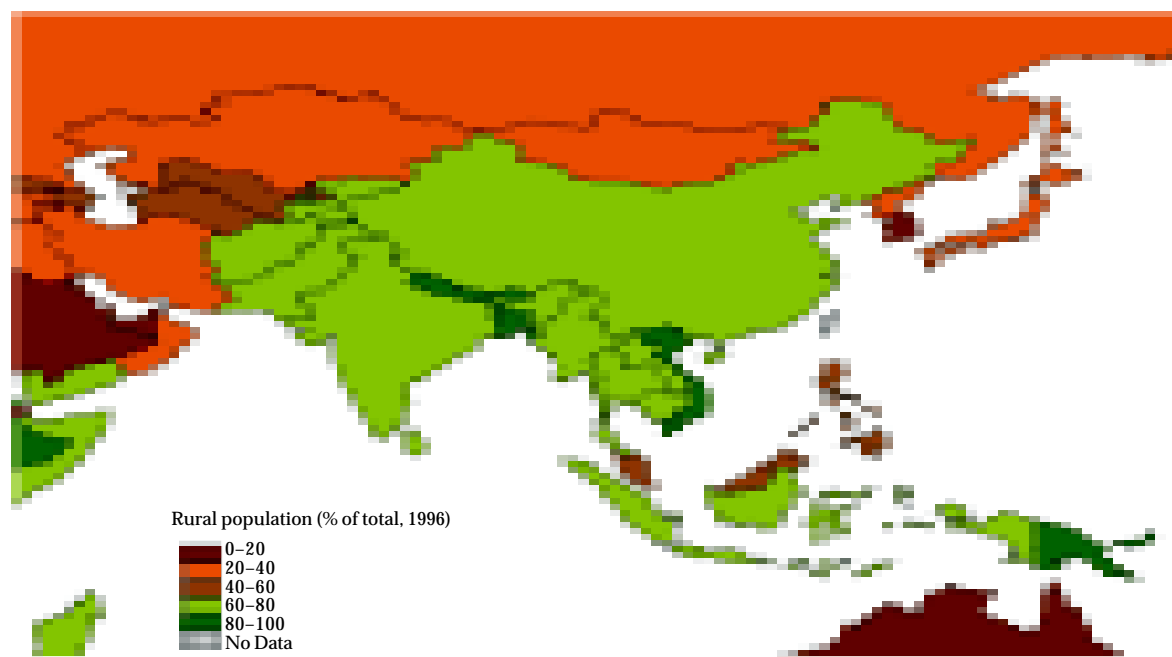


Figure III.1: Rural Population Shares, Asia

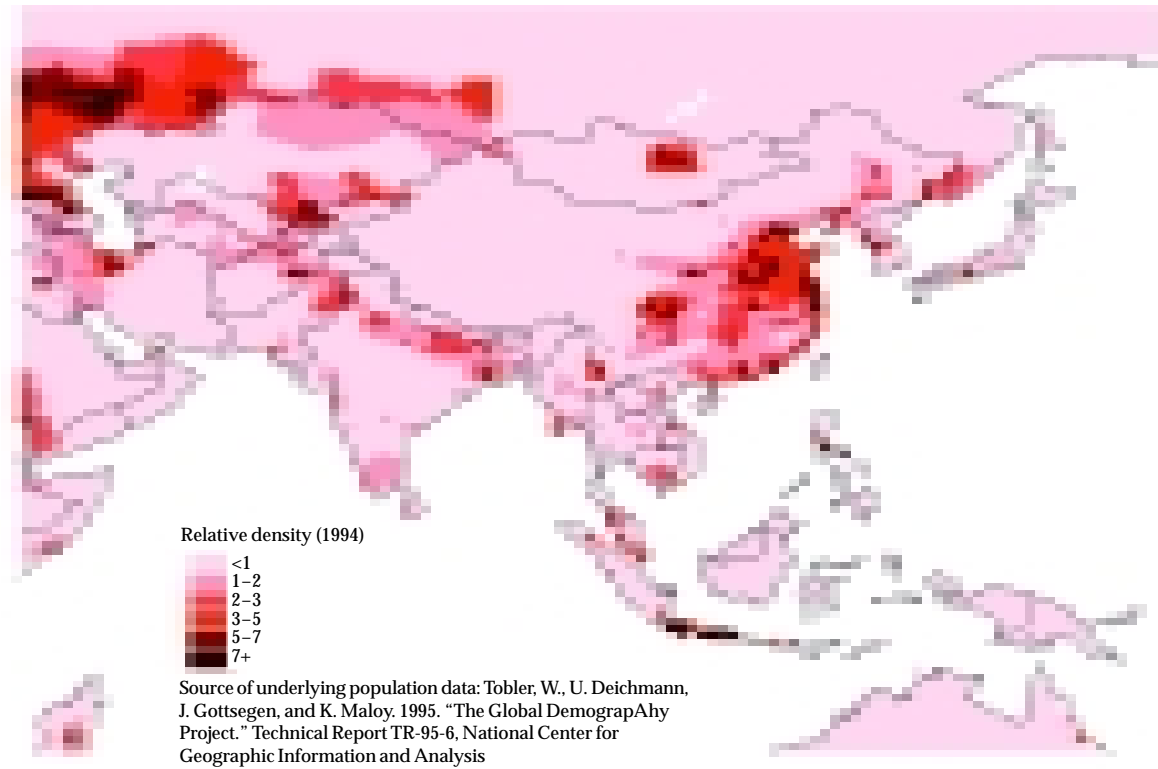


Figure III.2: Relative Population Density, Asia

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

	Rural Population			Agricultural Labor Force		
	Share of Total Population % 1996	Percent Change 1980-1996	Change in Share of Total Population 1980-1996	Share of Total Labor Force (%), 1990	Percent Change 1980-1990	Change in Share of Total Labor Force 1980-1990
East Asia	62.2	4.9	-10.2	65.0	19.8	-2.1
PRC	69.0	6.3	-11.4	72.2	21.4	-2.0
Hong Kong, China	4.9	-28.4	-3.6	0.9	-21.0	-0.4
Japan	21.7	-1.6	-2.1	7.3	-25.5	-3.7
Korea, Dem. People's Rep. of	38.5	13.5	-4.6	38.1	13.7	-6.8
Korea, Rep. of	17.7	-50.9	-25.4	18.1	-38.4	-19.0
Singapore	0.0	0.0	0.0	0.4	-70.3	-1.2
Southeast Asia	66.3	19.3	-9.9	60.0	22.7	-4.2
Cambodia	79.0	42.6	-8.6	73.9	29.5	-1.9
Indonesia	63.6	8.7	-14.2	55.2	27.5	-2.6
Lao PDR	78.7	34.1	-7.9	78.1	18.9	-1.4
Malaysia	45.7	17.6	-12.3	27.3	-11.2	-13.4
Myanmar	73.8	31.8	-2.2	73.3	18.8	-2.5
Papua New Guinea	83.7	37.2	-3.3	79.2	18.5	-3.3
Philippines	45.1	7.3	-17.4	45.8	16.9	-6.5
Thailand	79.7	23.3	-3.3	64.1	17.5	-6.9
Viet Nam	80.5	39.9	-0.3	71.3	27.3	-1.9
South Asia	73.4	31.9	-4.7	64.0	12.8	-5.8
Afghanistan	79.7	43.1	-4.7	70.3	18.4	-2.3
Bangladesh	81.1	28.3	-7.6	65.2	18.6	-7.4
Bhutan	93.8	43.1	-2.3	94.1	19.7	-0.3
India	72.9	30.3	-4.0	64.0	11.1	-5.5
Maldives	72.8	51.6	-4.9	32.3	-25.7	-17.8
Nepal	89.4	45.3	-4.1	93.6	26.7	-0.2
Pakistan	65.2	46.5	-6.7	51.8	16.1	-8.0
Sri Lanka	77.6	22.9	-0.8	48.5	17.4	-3.4
Central Asia	53.9	30.3	-1.0	31.0	8.5	-3.0
Kazakhstan	40.0	-4.0	-6.0	22.0	1.9	-2.2
Kyrgyz Republic	60.9	24.4	-0.8	32.0	11.4	-1.6
Tajikistan	67.7	53.9	2.0	41.0	12.1	-3.8
Turkmenistan	55.0	67.0	2.1	37.0	20.6	-1.8
Uzbekistan	58.6	44.2	-0.6	35.0	9.2	-5.1

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

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

Region	Rural Population			Agricultural Labor Force		
	Share of Total Population % 1996	Percent Change 1980-1996	Change in Share of Total Population 1980-1996	Share of Total Labor Force (%), 1990	Percent Change 1980-1990	Change in Share of Total Labor Force 1980-1990
Latin America & Caribbean	26.3	1.5	-25.2	25.5	0.5	-8.8
Middle East & North Africa	42.6	28.7	-18.3	34.9	0.5	-12.4
Sub-Saharan Africa	68.3	39.8	-11.2	67.8	23.8	-4.2
Europe	23.2	-8.3	-4.4	12.2	-7.5	-2.4
Asia	67.1	17.7	-7.5	63.0	17.3	-3.8

Source: World Bank (1998d)

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

Correlation between	Asian Countries			NonAsian Countries		
	1970	1980	1990	1970	1980	1990
Rural Share and Agricultural Labor Force	0.939 (28)	0.935 (28)	0.919 (28)	0.894 (145)	0.880 (145)	0.856 (145)
Rural Share and Population not Living in Large Cities			0.891 (14)			0.830 (55)
Agricultural Labor Force and Population not Living in Large Cities			0.851 (14)			0.772 (55)

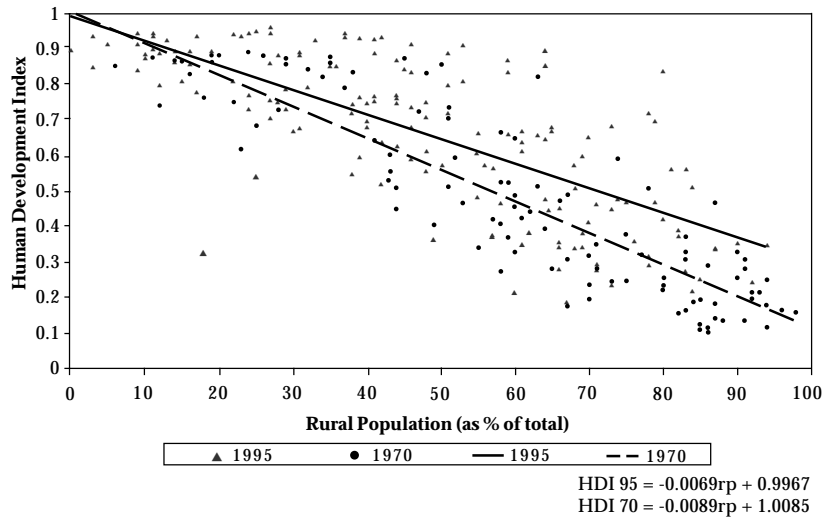
Rural Share: The share of the population not living in areas defined as urban in each country.

Sources: World Bank (1998d). Agricultural Labor Force: Percentage of total labor force in agriculture. UNDP (1998). Population not Living in Large Cities: Proportion of population not living in cities with 750,000 people or more.

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.



Source: Human Development Report (1998)

Fig. III.3: Human Development Index versus Rural Population Share, 1970 and 1995

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

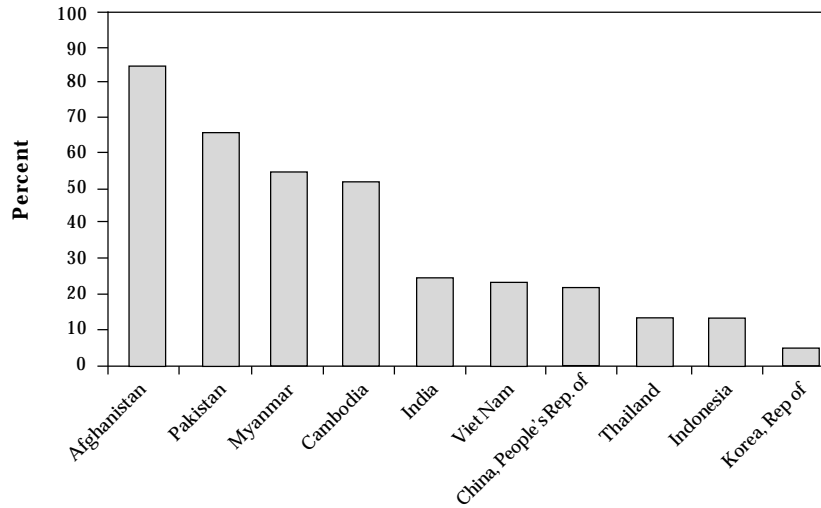
The shares of rural populations in various Asian countries without access to health care, without access to safe water, without access to sanitation, and below the national poverty line are shown in Figures III.4 to III.7. The countries included are all those for which published estimates are available, 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.

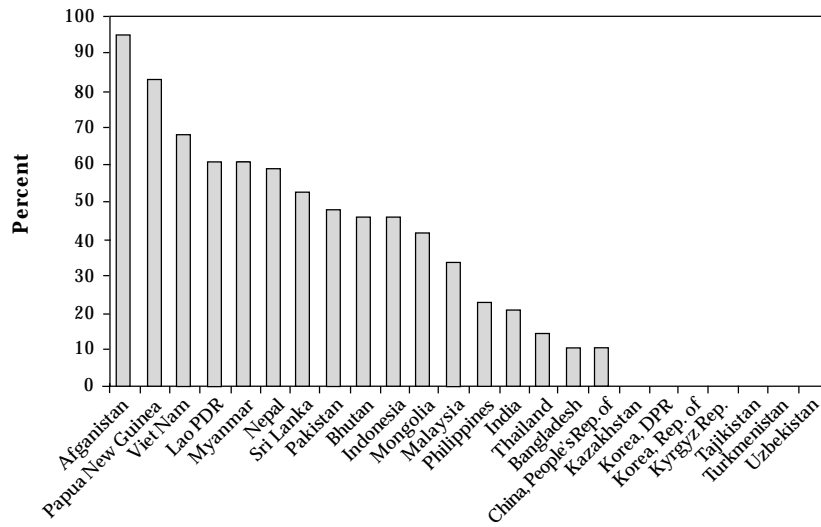
Rural poverty rates based on national poverty lines (as opposed to the internationally comparable dollar-a-day poverty line) for 13 Asian countries at different points in time dating back to the mid-1980s are shown in Figure III.7. These data reveal that rural poverty varies from being sizable in the 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



Source: UNICEF (1997)

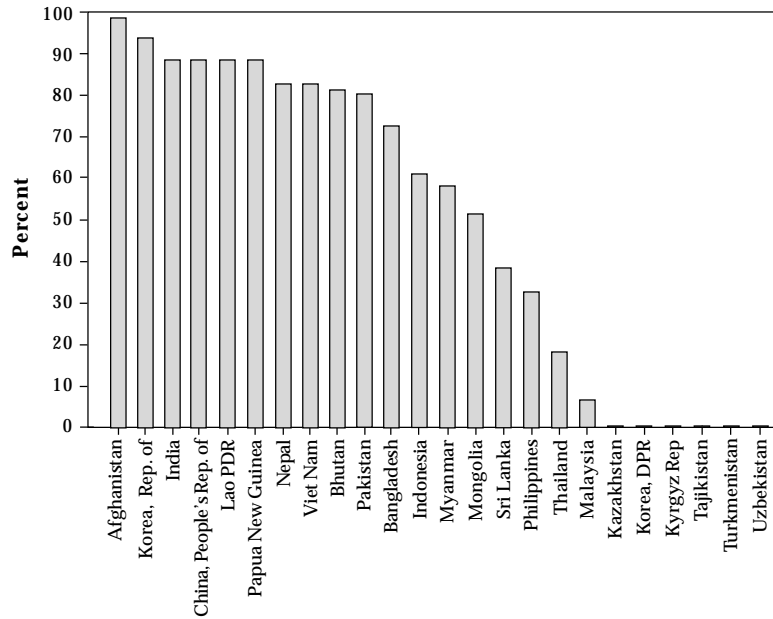
Figure III.4: Share of Rural Population without Access to Health Care, 1990-1995



Sources: WRI and IIED (1997)

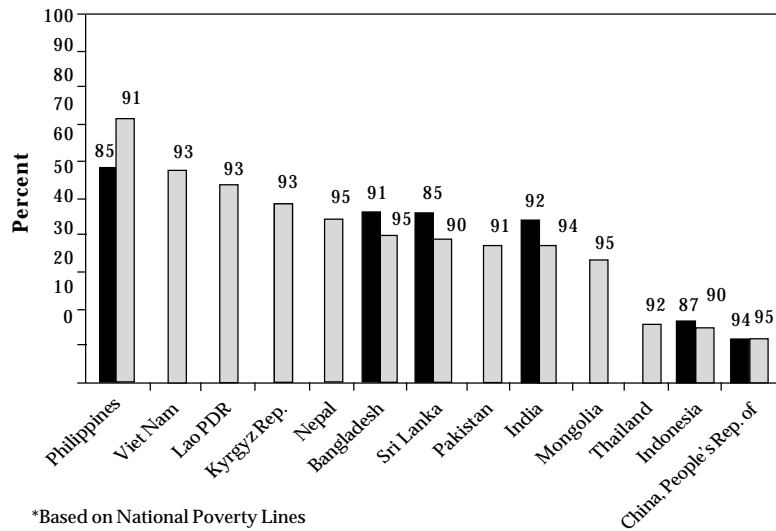
Figure III.5: Share of Rural Population Without Access to Safe Water, 1980-1995

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Sources: WRI and IIED (1997)

Figure III.6: Share of Population Without Access to Sanitation, 1980–1995



*Based on National Poverty Lines
Source: World Bank (1998d)

Figure III.7: Rural Poverty Rates in Selected Years

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)

Region	Number Without Access to		
	Sanitation	Safe Water	Health
East Asia	801.5	96.5	142.8
Southeast Asia	175.6	144.9	64.9
South Asia	779.3	231.9	252.9
Central Asia	0.5	0.4	12.5
Asia	1,756.9	473.7	473.1

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

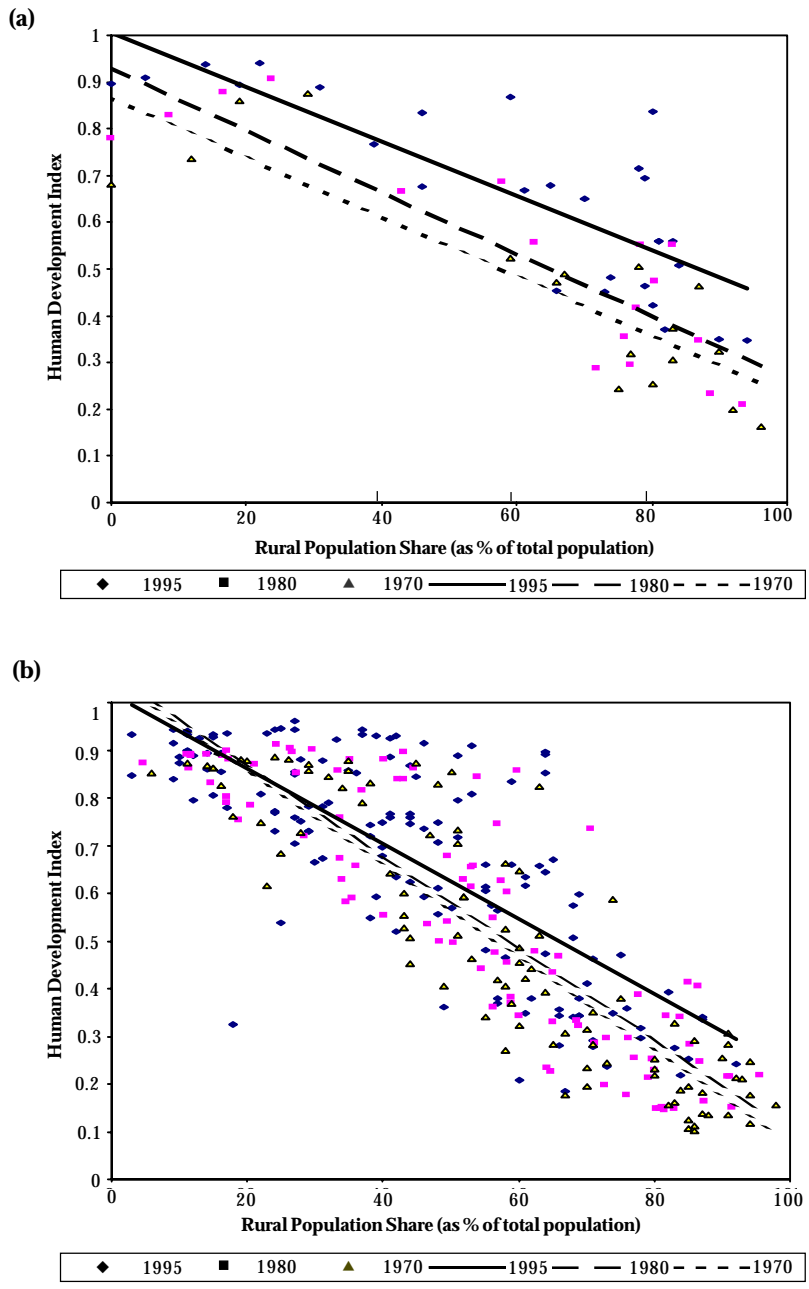


Figure III.8: Human Development Index versus Rural Population Share, 1970, 1980, and 1995. (a) Asia; (b) Non-Asian Countries

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.

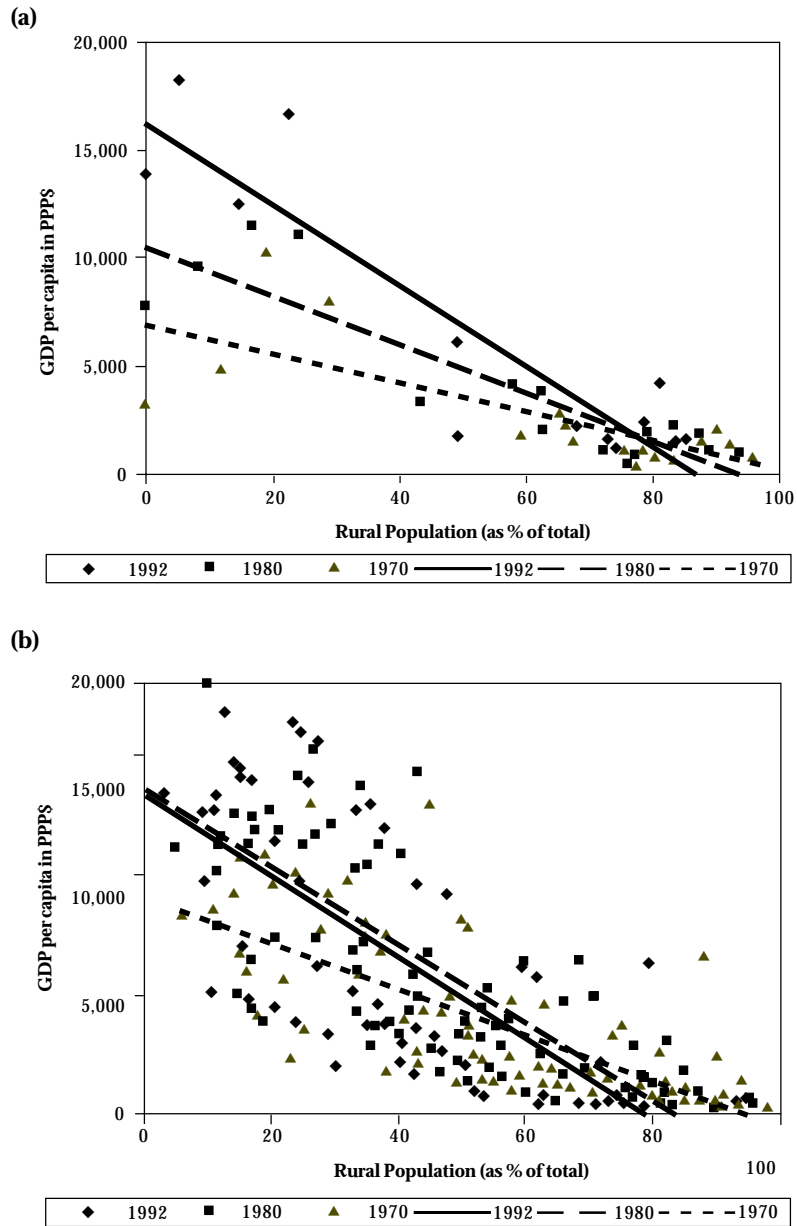


Figure III.9: GDP per capita in PPP\$ versus Rural Population Share, 1970, 1980, and 1992. (a) Asia; (b) NonAsian Countries

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

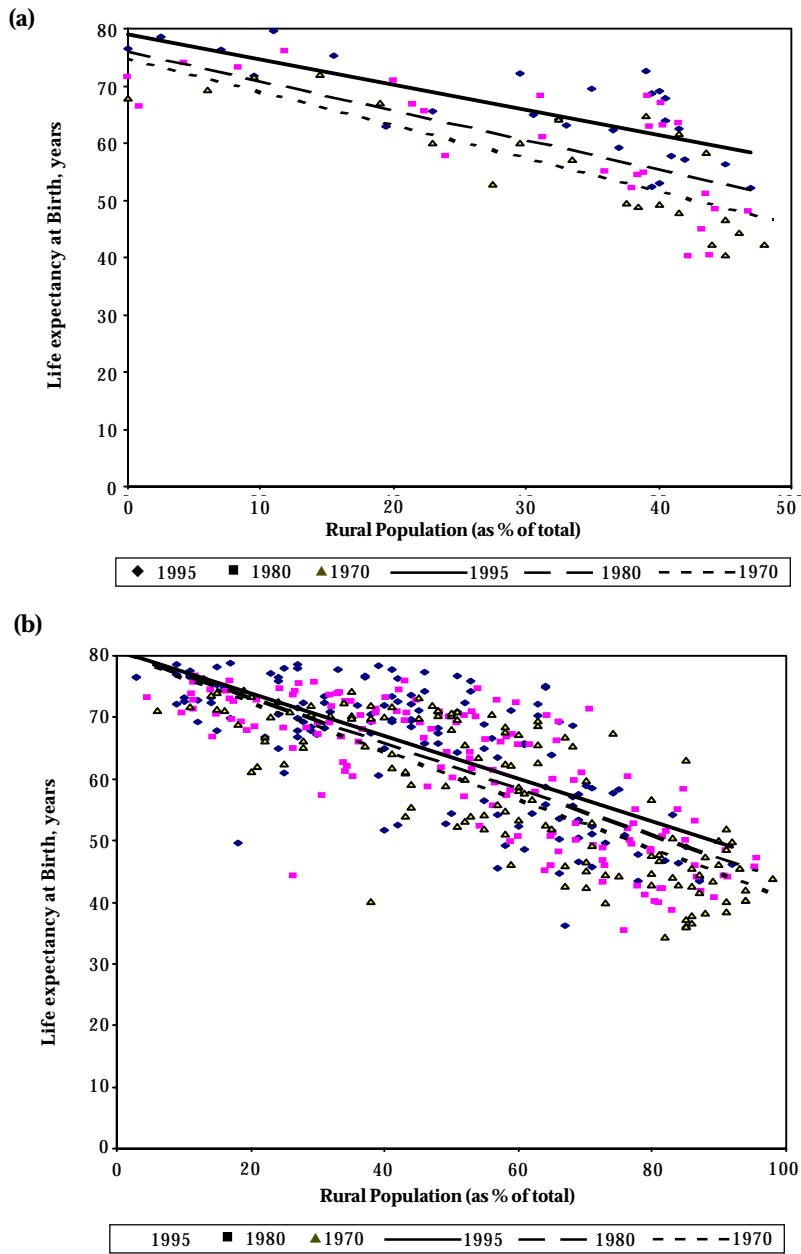


Figure III.10: Life Expectancy at Birth versus Rural Population Share, 1970, 1980, and 1995. (a) Asia (b) NonAsian Countries

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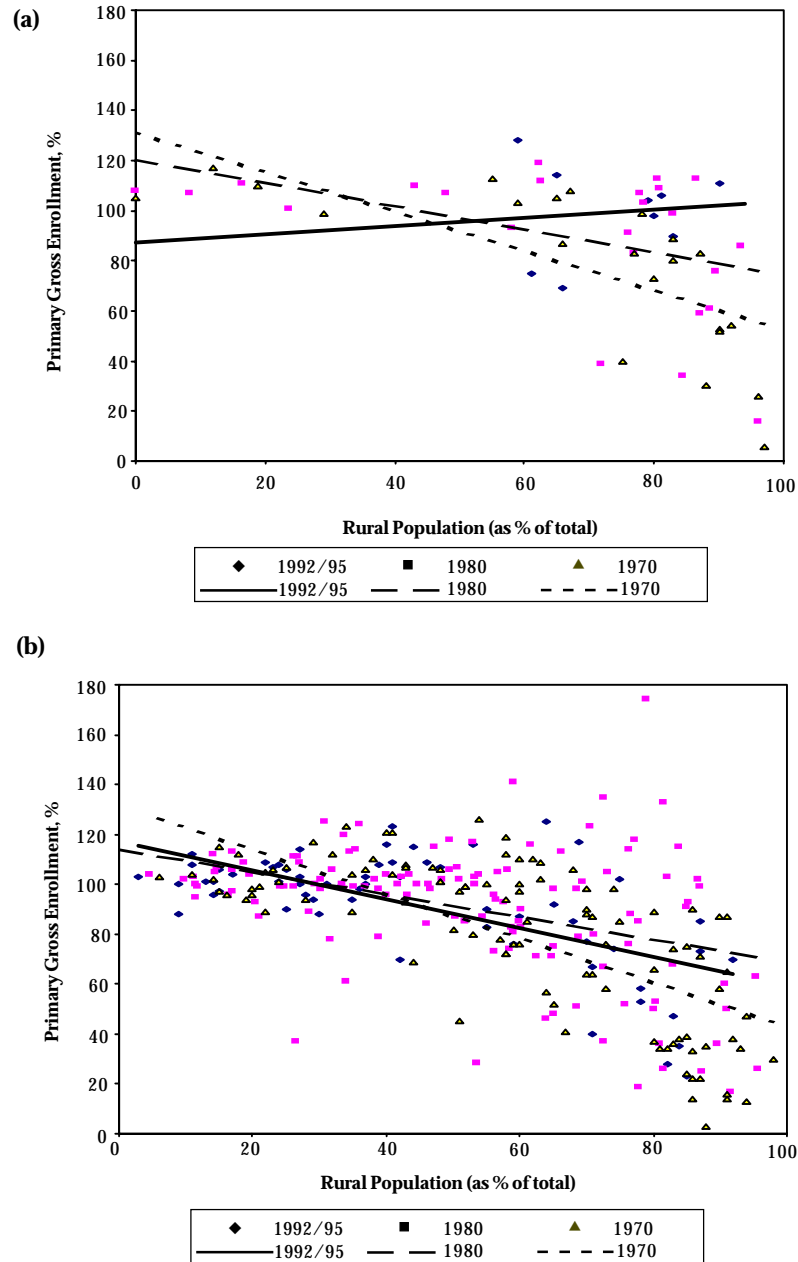


Figure III.11: Primary Gross Enrollment versus Rural Population Share, 1970, 1980, and 1992/95. (a) Asia; (b) NonAsian Countries

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

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

Table III.6 (Cont.)

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

(continued next page)

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Table III.6 (Cont.)

Indicator	Constant	Rural Share
HEALTH		
Life Expectancy at Birth	80.136**	-0.238**
Infant Mortality Rate (per 1,000 live births)	-14.767	1.043**
Maternal Mortality 1980-1988 (per 100,000 live births)	-204.882	8.273**
Public Expenditure on Health (% GDP) 1994	3.619**	-0.025*
NUTRITION		
Calories Available per capita (as % of need) 1987-1989	128.870**	-0.303**
Wasting 1980-1989 (% children aged 12-23 mo)	2.749	0.082*
Stunting 1980-1989 (% children aged 24-59 mo)	8.737	0.506**
FERTILITY		
Total Fertility Rate	1.017*	0.038**
Contraceptive Prevalence Rate	75.295**	-0.388**
POLITICAL		
Economic Freedom Index	1.354**	0.029**
Political Rights	3.630**	0.020
Civil Liberties	3.507**	0.025*
ACCESS TO INFORMATION		
TV Sets (per 1,000 people)	464.315**	-5.024**
Daily Newspapers (per 1,000 people)	468.974**	-6.030**
ENVIRONMENT		
Annual Deforestation (%)	-0.582	0.015
INFRASTRUCTURE		
Percentage of Cropland Irrigated	54.671**	-0.356*
Percentage of Roads Paved	93.185**	-0.720**
Telephones (per 1,000 people)	436.291**	-5.583**

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.)

	NonAsia Dummy	NonAsia Dummy x Rural Share	R ²	N
*	0.014	-0.089	0.50	168
*	8.156	0.072	0.45	170
*	15.626	1.688	0.44	101
	2.247**	-0.025	0.29	123
*	10.446	-0.298**	0.42	103
	-2.897	0.023	0.29	62
*	0.101	-0.128	0.45	63
*	0.027	0.013	0.041	170
*	3.198	-0.350**	0.43	125
*	1.112**	-0.014**	0.38	97
	-1.212	0.002	0.10	169
	-0.859	-0.004	0.14	169
*	23.538	-0.899	0.51	158
*	-181.815**	2.026**	0.46	147
	0.101	-0.007	0.01	157
	-25.770**	0.125	0.09	142
*	-12.979	-0.018	0.27	153
*	-49.025	0.594	0.41	169

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

Indicator	Constant	Rural Share	Trend	Trend X RS	R ²	N
Human Development Index	0.841**	-0.006**	0.006*	0.000	0.74	60
Primary Enrollment	134.408**	-0.804**	-1.319	0.030**	0.36	61
Secondary Enrollment	74.625**	-0.601**	2.007**	-0.018*	0.55	65
Literacy	87.568**	-0.423**	0.743	-0.001	0.40	50
Life Expectancy	72.916**	-0.261**	0.251	0.001	0.60	89
Infant Mortality Rate	-19.645	1.596**	0.394	-0.024*	0.54	89
Hospital Beds	8.232**	-0.061**	0.037	-0.001	0.18	71
Total Fertility Rate	2.506**	0.041**	-0.059*	0.000	0.59	84
Log GDP per capita (PPP)	8.640**	-0.020**	0.050**	-0.0004	0.72	47
Log Agricultural Value Added per Hectare	9.805**	-0.045**	-0.008	0.000	0.51	51
Log Agricultural Value Added per Worker	10.243**	-0.052**	-0.017	0.000	0.73	36
Log Private Consumption	8.370**	-0.036**	0.028	0.000	0.73	43
Log GDP per Worker	10.142**	-0.042**	0.009	0.000	0.71	60
Irrigated Cropland	51.690**	-0.427**	-0.420	0.012	0.14	72
Political Rights	4.784**	-0.005	-0.052	0.001	0.02	80
Civil Liberties	4.759**	-0.005	-0.055	0.001	0.05	80
TV Sets per 1,000 People	206.052**	-2.207*	8.304*	-0.083	0.32	69
Telephone Mainlines	119.832**	-1.361**	12.328**	-0.157**	0.67	74

GDP = gross domestic product; PPP = purchasing power parity; RS = rural share.
 Note: GDP data are for 1970, 1980, and 1992 in constant 1987 PPP-adjusted US dollars.
 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

Indicator	Constant	Rural Share	Trend	Trend x RS	NonAsia	NonAsia x RS	NonAsia x Trend	R ²	N
Human Development Index	0.891**	-0.007**	0.003	0.000**	0.146**	-0.003**	-0.003*	0.73	390
Primary Enrollment	133.402**	-0.789**	-1.220**	0.028**	-3.144	-0.055	-0.007	0.34	352
Secondary Enrollment	80.339**	-0.684**	1.433**	-0.009**	5.260	-0.198*	-0.341	0.60	399
Literacy	95.074**	-0.529**	0.255	0.006	0.958	-0.225*	0.111	0.54	275
Life Expectancy	73.772**	-0.275**	0.182*	0.002*	6.553**	-0.117**	-0.162**	0.61	529
Infant Mortality Rate	-20.469	1.609**	0.453	-0.252**	3.499	0.176	-0.159	0.58	528
Hospital Beds	8.958**	-0.072**	-0.034	0.000	2.042	-0.019	-0.062	0.22	402
Total Fertility Rate	2.463**	0.042**	-0.055**	0.000	-0.583	0.013*	0.026	0.48	542
Log GDP per capita (PPP)	8.637**	-0.020**	0.050**	-0.0004**	1.117**	-0.014**	-0.034	0.73	351
Log Agricultural Value Added per Hectare	10.045**	-0.049**	-0.026	0.000	-3.645**	0.023**	0.029	0.28	313
Log Agricultural Value Added per Worker	9.814**	-0.045**	0.006	0.000	0.414	-0.003	-0.009	0.67	227
Log Private Consumption	8.346**	-0.036**	0.030**	0.000	1.043**	-0.007	-0.033**	0.69	309
Log GDP per Worker	10.129**	-0.041**	0.010	0.000	0.775**	-0.006	-0.026*	0.61	390
Irrigated Cropland	40.557**	-0.266	0.403	-0.001	-13.125	0.053	-0.371	0.06	420
Political Rights	3.589**	0.012	0.038	0.000	-1.706**	0.029**	-0.029	0.16	491
Civil Liberties	3.577**	0.012	0.035	0.000	-1.532**	0.023**	-0.022	0.16	491
TV Sets per 1,000 People	209.204**	-2.258**	8.088**	-0.079**	76.026	-1.401**	-0.387	0.49	445
Telephone Mainlines	158.579**	-1.945**	9.692**	-0.116**	18.641	-0.286	-0.896	0.47	474

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

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

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 Thailand¹⁰. 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.

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 only¹¹. 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

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.