

Chapter 1

The Dimensions of Chronic Poverty in Asia

1.1 Introduction

Poverty has several different dimensions. At any given time poverty can be measured as a shortfall in a minimum level of income needed to provide a sustainable level of consumption of food, clothing and affordable housing. There is also illiteracy due to lack of access to education; poor health due to inadequate services and access to potable water and little or no representation in the community. Often these dimensions of poverty become apparent when family income falls below some minimum income standard.

The World Bank in its comparative work around the world has used the standard of one US dollar a day per person as a benchmark for measuring poverty. Those whose income is below US\$1 a day fall into the poverty category. While it leave out many factors, this simple income standard for measuring poverty is useful in making comparisons between different locations in a country as well as among different countries. The dollar a day standard made its debut in 1990 (World Bank, 1990) and has remained the standard for poverty line estimation until recently.

In mid-2008, the World Bank unveiled a new estimate of the poverty line, in light of inflation since 1980 and new estimates of purchasing power parity (see Ravallion *et al.*, 2008; Ravallion *et al.*, 2008a; and *The Economist*, 2008). One simple way to account for inflation would be to factor in US inflation which would bring the poverty line to about \$1.45 in 2005. However Ravallion *et al.* (2008a) thought this estimate was a bit too high. Rather than abandon the poverty line concept Ravallion *et al.* (2008a) re-estimated the

poverty line using similar methodology and better data. They gathered national poverty line data from 75 national estimates and picked the 15 lowest (13 sub-Sahara African countries and Nepal and Tajikistan). Averaging out they came to an estimate of the poverty line to about \$1.25 per day using 2005 purchasing power parity terms.

How much difference does this make in poverty for Asian countries? It is hard to say right now, although the level of poverty will probably be a bit higher for most countries. Ravallion *et al.* (2008) made a first cut for China and found that poverty increased substantially using the new estimation procedure, from 74 million to around 200 million in 2005. However using the new standard developed by Ravallion *et al.* (2008) to measure poverty changes over time, the level of poverty fell by over 400 million between 1990 and 2004 compared with a previous estimated decline of around 250 million.

The most recent estimates of poverty in Asia are displayed in Table 1.1. There are about 740 million people in poverty in this panel of countries and about 900 million in all of the Asia and Pacific region. The bulk of the poor are in three countries — India, China and Bangladesh.

Table 1.1 Head Count Ratio and Numbers in Poverty in Asia

Country	Head Count Ratio — Proportion of Population in Poverty	People in Poverty (millions)
Bangladesh	0.51	75
Cambodia	0.40	5.6
China (rural)	0.25	200
China	0.16	210
India (rural)	0.44	342
Indonesia (rural)	0.25	27
Lao PDR	0.35	2
Nepal	0.55	14.8
Pakistan	0.22	35
Philippines	0.22	19
Vietnam	0.23	19

Source: Asian Development Bank (2008) and Bauer *et al.* (2008).

To augment this approach adopted by the World Bank, the Asian Development Bank, other multilateral agencies and individual countries also have developed their own indices of poverty based on local standards and data sources.

An interesting approach has been suggested by the International Food Policy Research Institute (IFPRI, 2007) which has broken down poverty incidence into three separate income categories that shows the depth of poverty as well as the absolute level. Measuring income in purchasing power parity terms they are the subjacent poor whose income is between \$0.81 and \$1.08 per day per person; the medial poor whose income is between \$0.81 and \$0.54 per day; and the ultra poor whose income is less than \$0.54 per day. Estimates for selected countries are displayed in Table 1.2.

The estimates are somewhat different from the figures reported in Table 1.1, particularly for Pakistan and less so for India and Bangladesh. Nevertheless, they are interesting because they show the level of severe deprivation (ultra poor category) is less than 5 percent in all the countries sampled.

Who are the poor in Asia? Economic growth in East Asia has resulted in the reduction of poor households, especially for rural households over the past two decades. However the number of poor rose in South Asia over the same period. Furthermore the total number of households in rural poverty in South Asia was almost double that of sub-Saharan Africa. (World Bank, 2008 and Ravallion, Chen and Sangraula, 2008).

Table 1.2 Incidence of Rural Poverty by Depth of Poverty — Head Count Ratio (%)

Country	Subjacent Poor	Medial Poor	Ultra Poor	All Rural Poor
Bangladesh	27.5	22.9	4.8	55.2
India	22.1	13.2	1.8	37.1
Pakistan	9.5	3.0	0.3	12.8
Sri Lanka	3.8	1.2	0.2	6.8
Vietnam	19.8	12.0	3.3	35.1

Source: IFPRI (2007).

That brings us to the next question, which is the focus of our work in the remaining chapters of this monograph — what causes chronic poverty and what can be done about it? Causes of chronic poverty depend on (i) maintainers that keep households in poverty and (ii) drivers that cause households to fall into poverty traps. We will explore into greater depth the various causes of chronic poverty as we look into the respective country experiences over time in Chapter 7 and more generally in Chapters 2 and 3.

If a family is diagnosed as suffering from the shackles of chronic poverty, how can they break free? Exit routes are generally fastest when the chronic poor have the opportunity to participate in “new patterns of transformative growth” and when the government has sufficient revenue from taxation to spend on pro-poor expenditure (Chronic Poverty Research Center, 2008). Access to infrastructure, education and information are of vital importance especially for the poor residing in landlocked areas. Table 1.3 ranks the various efforts of Asian countries in reducing chronic poverty over the past 30 years. China, Indonesia and Vietnam have consistently improved their chronic poverty situations. Pakistan, Bangladesh, India are considered as partially chronically deprived. Lastly, Cambodia has the greatest degree of chronic deprivation. Chronically deprived countries are characterized by relatively low initial levels of welfare (relatively low GDP and relatively high child and infant mortality) and by their relatively slow rate of progress over time. They account for over 30 percent child and infant mortality and 17 percent of population earning less than US\$1 day per day than their share of total population. Partially chronically

Table 1.3 Country Classifications of Poverty for Selected Asian Countries, 1970–2003

Chronically Deprived Countries	Cambodia
Partially Chronically Deprived Countries	Pakistan, Bangladesh, Laos, Nepal, Philippines, India, Thailand, Mongolia, Myanmar
Partial Consistent Improvers	Malaysia
Across-the-board Consistent Improvers	China, Indonesia, Vietnam

Source: Chronic Poverty Research Center (2008, p. 15), Table 2.

deprived countries show relatively low levels of welfare but have shown at least relative slow rates of improvement. Consistent improvers would show faster rates of progress over time.

The further income is below the poverty line, the greater the depth of poverty experienced. By adding up the shortfalls in income relative to the poverty line we can develop a measure of the depth of deprivation. This total represents the income required to raise the income of everyone who is below the poverty line up to the poverty line. This poverty gap ratio (PGR) tells us the income required to raise everyone's income to the poverty line divided by the total income of the entire population:

$$\text{PGR} = \sum \frac{(y_i - p)}{\text{total income}}$$

where y_i is the income of the i th individual and p is the poverty line. All of the shortfalls in income of the poor are added and then divided by the total income of the community (GDP) in a year to arrive at the PGR. Alternatively, we can use the total income of the poor if all of them were to have income at the poverty line as the divisor. For example if the poverty line is US\$1 per day and there were 1,000 poor people the divisor would be US\$365,000. This ratio of the shortfalls in income for the year divided by the total income of the poor (US\$365,000 in our example) is called the income gap ratio (IGR):

$$\text{IGR} = \sum \frac{(y_i - p)}{\text{total income of the poor (if they were all to have incomes at the poverty line)}}$$

While the depth of poverty is a useful concept, it is not widely used since data on the relative poverty gap are not easy to generate.

We can also look at poverty over time. If a family is below the poverty line for a sustained period of time, five years or longer, we can say that the family is chronically poor. If a family comes in and out of poverty depending on circumstances that are temporal in nature such

as temporary illness or unemployment, then the family is characterized as being temporarily poor. Families can have several bouts of poverty and still not be chronically poor.

Chronic poverty can be mild or severe, depending on how far the family is below the poverty line. Generally however, all chronically poor are below the poverty line for an extended period of time. The Chronic Poverty Research Center (2008) has recently estimated the extent of chronic poverty for countries around the world where there are large numbers of chronically poor. These are reported in Table 1.4.

Who are the chronic poor in Asia? To be diagnosed as chronically poor, the household will have to be persistently poor and experience multidimensional deprivation for an extended period of time. However the length of time is arbitrary. According to Adams and He (1995), chronic poverty is indicated if the family is in the poorest quintile of the income distribution for three successive years. Other studies, such as McCulloch and Baulch (1999) put chronic poverty to being poor in all five years. It is also not easy to identify chronic poverty at a point in time as poverty trends can mask poverty dynamics. Some

Table 1.4 Poor and Chronically Poor in East Asia and South Asia

Country	Proportion of Poor Who are Chronically Poor Over Five Years — Low Estimate	Proportion of Poor Who are Chronically Poor Over Five Years — High Estimate	Proportion Poor — US\$1.25 Per Day	Number of Poor — US\$1 Per Day (rounded to millions)
China	0.15	0.25	0.25	200
Indonesia	0.15	0.25	0.25	27
Philippines	0.30	0.40	0.22	19
Vietnam	0.35	0.45	0.20	19
Bangladesh	0.20	0.30	0.50	75
India	0.25	0.35	0.44	342
Nepal	0.50	0.60	0.55	15
Pakistan	0.25	0.35	0.22	35

Source: Chronic Poverty Center (2008), Annex E; Asian Development Bank (2008).

households could have moved out of poverty while other households moved into poverty and are still struggling to escape from poverty. Once they have fallen into poverty, intergenerational transmission of poverty is likely to occur unless they have access to educational and social capital.

According to the estimates from Chronic Poverty Research Center (2008, p. 9), the likelihood of households in South Asia suffering from chronic poverty is quite substantial. Estimates range between 126 million and 176 million. South Asia alone accounts for close to 40 percent of chronic poor in the world. For estimates of chronic poverty in selected Asian countries, see Tables 1.4 and Table 1.5.

Notice that there are some differences between the chronic poverty estimates in Tables 1.4 and 1.5. Aside from methodology, these differences highlight the difficulties in determining who are actually chronically poor.

While the number of chronically poor is substantially less than the total number of those in poverty at any one time, the numbers of chronically poor are still high. The total number of chronically poor in the four countries in East Asia (China, Indonesia, Philippines and Vietnam) is estimated at between 50 and 80 million while in South Asia (Bangladesh, India, Nepal and Pakistan) the number of chronically poor is substantially higher at between 126 million and 176 million.

Since we are focusing on chronic poverty it is important to begin by asking the question — who is chronically poor in Asia? To answer this question we need to examine whatever information and research

Table 1.5 Chronic and Transitory Poverty in Recent Panel Studies (%)

Country	Dates	Observations	Chronic Poverty	Transitory Poverty	Never Poor
China	1985–90	2	6.2	47.8	46.0
India	1968–1971	3	33.3	36.7	30.0
India	1975–1984	9	21.8	65.8	12.4
Pakistan	1986–91	5	3.0	55.3	41.7

Source: Baulch and Hoddinott (2000) and Shaffer (2001, p. 33) Table 1.2.

is available on the poor. It is also difficult to differentiate between the chronically and the temporarily poor. Nevertheless it is useful to concentrate on those who are chronically poor. Most importantly, persistent or chronic poverty has intertemporal effects on those who are trapped in a poverty cycle. There are physical and psychological impacts that are not necessarily felt by those who fall into poverty for a short period of time. These aspects of chronic poverty include: (i) a lack of incentive and feelings of hopelessness brought on by persistent poverty, (ii) shortage of food and other material goods, illness and diseases that are passed on from generation to generation beginning at conception (iii) and a continual struggle for survival.

Chronic poverty has many different and interwoven aspects, which will vary from country to country and location to location, within a country. These specific features of chronic poverty need to be spelled out in some details if those in poverty traps are to free themselves. While avoiding overgeneralization, it is useful to introduce a few features which are common in many different situations.

1.2 Poverty and Hunger

While there is a definite relationship between hunger and poverty, not all the poor are hungry and not all the hungry are poor. Nevertheless we would expect the two variables to be highly correlated over time both within countries and between different countries. However comparing proportions of poor and hungry compiled by IFPRI (2007), there are some glaring discrepancies between the two variables for the Asian economies. In particular the hunger proportions are much higher than the poverty proportions for Pakistan and Sri Lanka. The discrepancies are particularly striking in Sri Lanka, where the proportion of the population that is ultra poor is less than one percent while the proportion that is ultra hungry is 24.2 percent (see Table 1.6).

Since all of the South Asian countries had food surpluses at the time of the surveys, IFPRI (2007) argues that food deficiencies in South Asia are the result of an inability to access available food rather than food shortages. The disconnection between hunger and poverty

Table 1.6 Incidence of Rural Hunger by Food Energy Deficiency — Head Count Ratio (%)

Country	Subjacent Hungry	Medial Hungry	Ultra Hungry	All Rural Hungry
Bangladesh	30.9 (27.5)	12.8 (22.9)	4.8 (15.9)	59.6 (55.2)
India	28.9 (22.1)	12.1 (13.2)	1.8 (17.1)	37.1 (58.1)
Pakistan	21.8 (9.5)	9.9 (3.0)	16.5 (0.3)	12.8 (48.2)
Sri Lanka	23.4 (3.8)	10.9 (1.2)	24.3 (0.2)	6.8 (58.6)

Source: IFPRI (2007) percentages in brackets from Table 1.2.

statistics for Pakistan and Sri Lanka is reinforced by additional data collected by IFPRI (2007) which shows the incidence of poverty among the hungry to be very low in Pakistan and Sri Lanka (19 percent and 10 percent respectively). This is further evidence that in these two countries there must either be some food distribution shortages or consumption habits that stress other basic needs — health, education, transportation or housing — that kept food consumption low and the food energy deficit high.

But this would be seemingly inconsistent with budget surveys reported by IFPRI (2007) for the two other Asian economies in the survey. These show the share of food in the budgets of the poor in Bangladesh and India — but not Pakistan and Sri Lanka — to be between 60 and 70 percent of income. Without further data and analysis it is difficult to reconcile these results of large hunger deficits and low rates of poverty. One possible aspect of the hunger data is that meals eaten out of the home, either at restaurants or elsewhere, cannot be reliably estimated. But, there is no reason to believe that the rural poor in Sri Lanka and Pakistan ate many meals out of their own homes than the rural poor in the other two countries.

Due to these discrepancies between hunger and poverty data for South Asia and also because hunger statistics are not collected as systematically as information on poverty, for many countries, our analysis in the rest of this book will be confined to the analysis of poverty rather than hunger.

1.3 Poverty and Discrimination

Groups caught in the trap¹ of chronic poverty are often the object of discrimination. The amount of discrimination is difficult to determine because there is a feedback loop operating that makes identifying the degree of discrimination difficult. Are they poor because of discrimination or are they discriminated against because they are poor?

Discrimination takes many different forms, some obvious and others more subtle. Discrimination results in disadvantages to the poor that result from the lack of a level playing field at many different levels. We can generically group all of these various kinds of discrimination with one word — status. By status we mean any disadvantage that can be ascribed to race, ethnicity, gender, religion, social class or age. Generally such discrimination can occur in the work place, in markets for goods and services, in civil society or in legal matters. A few separate groups are analyzed below.

1.3.1 *Minorities including indigenous people*

Some minorities and indigenous people include marginalized groups that have been denied access to education, health and other social services and who have been relegated to the ranks of the unskilled in labor markets. For example in China there are more than 50 ethnic groups. These ethnic groups comprise less than 9 percent of the total population but around 40 percent of these minorities are in poverty (see World Bank, 2001). In Vietnam ethnic minorities make up only about 14 percent of the total population and 30 percent of these

¹ The term “poverty trap” has been widely used to describe a situation where a self-reinforcing set of circumstances result in persistent poverty. Poverty traps have been used to describe low growth scenarios for countries as a whole and also for segments within societies. Recent developments in growth theory feature models with increasing returns to scale as alternatives to the standard neoclassical model. These models include blocks to adoption of new technology, risk and liquidity constraints among others to explain low level equilibrium growth paths for many poor countries in Africa and South Asia (See Azariadis and Stachurski, 2006 and Barrientos, 2007).

Table 1.7 Rural Poverty Head Count Ratios by Social Group in Orissa and India, 1999–2000

Province	Scheduled Tribes	Scheduled Caste	All
Orissa	73	52	48
All — India	44	35	27

Source: de Haan and Dubey (2003).

minorities are poor (see Baulch and Masset, 2003). In India poverty rates for Scheduled Tribes and Scheduled Classes were up to 40 percent greater than for other ethnic groups (see Mehta and Shah, 2003 and 2006 and Table 1.7).

In Thailand about 1 million hill tribe members earn an average of around \$100 per year per capita, less than a third of the poverty line of \$1 per day (see FAO report available at <http://www.fao.org/DOCREP/0040AC385E>). In Bangladesh, Hindus comprise around 12 percent of the population while ethnic minorities (called Adavasi) comprise around 2 percent. Both groups are discriminated against, although there are few hard figures since the government has not recognized the Adavasi as a separate group and there are no data on income by religious affiliation.

In Pakistan, there is also a Hindu minority (although not as large as in Bangladesh) and a Catholic minority. Both groups are subject to discrimination. In the Philippines there are several hill tribes, indigenous people that were forced into the mountains and marginal agricultural lands by the Spanish over 400 years ago. While in Burma there are hill tribes that were similarly forced into marginal areas by the British.

In the Mekong countries of Vietnam, Laos and Cambodia there are also a sprinkling of indigenous tribes that share some of the same characteristics as the tribes in Thailand. In Vietnam approximately eight million or about 10 percent of the population comprising 51 ethnic groups live in the remote areas of the North, Northeast and the Central Highlands (see <http://www.offroadvietnam.com/eng/13-46.php> and Minot, Baulch and Epprecht, 2006).

Poverty rates are significantly higher for these people than those living in more fertile lowland regions.

Laos and Cambodia (see Dasgupta *et al.*, 2003 and World Bank, 2006) have fewer ethnic minorities than the rest of Southeast Asian countries and there appears to be less ethnic discrimination. In Cambodia, the Cham account for around 2 percent of the population. They are somewhat different in dress and occupation from the Khmer majority yet their living circumstances are not noticeably different from the Khmer. Their incomes are also not at the lower end of the per capita consumption distribution. Other ethnic minorities including Chinese and Vietnamese are typically wealthier than the Khmer majority. The poorest are the highland tribal groups living in forested upland areas. There are 17 main tribal groups numbering only around 100,000.

In Lao PDR (see World Bank and IMF, 2001) the Lao Loum, or lowland Lao, constitute the majority of the population — 66 percent and speak the Lao language. The Lao Theung, or midland Lao migrated northward in prehistoric times and account for about 24 percent of the national population. The Lao Sung makes up about 10 percent of the population and live on upper slopes of the northern mountains. The Hmong are the most numerous Lao Sung group, with villages spread across the uplands of all the northern provinces. There are no statistics on the relative incomes of these three groups (Lao Loum, Lao Theung and Lao Sung). However it does not appear that the minority Lao Sung are discriminated against although their land is the least fertile of the three groups.

There are other ethnic minorities in Asia that also suffer from systematic discrimination. These and the minorities mentioned briefly above will be discussed more fully in the country reports in Chapter 7.

1.3.2 *Unfair labor practices*

Unfair labor practices help keep the chronically poor below the poverty line. The most widespread form of unfair labor practice is bonded labor. The practice comes about when a worker goes into

debt to his employer and agrees to work for the employer in order to repay the debt. Bonded workers are usually poorly educated and work for a landowner as a share cropper but more often as a laborer. Bonded laborers are not guaranteed full time work or wages. A poor harvest can mean lower wages or intermittent employment. Any shock such as illness or bad weather can result in further borrowing and increased indebtedness to the landlord. Sometimes new migrants looking for work become bonded when they borrow money for subsistence or emergencies. Often the worker is duped by the employer and is charged high rates of interest on the loan from the employer. Over time the worker can no longer hope to repay this loan and his entire family becomes bonded to help repay the loan.

Bonded labor is widespread in South Asia. The system is perpetuated because the landowners may also be elected officials and are protected by or have influence with law enforcement officials. Conservative estimates of the numbers of bonded laborers indicate there are at least 2 million in India, approximately 1.7 million in Pakistan (mostly in southern Sindh and southern Punjab) and over 100,000 in Nepal. In India and Nepal, scheduled castes and scheduled classes and other poor groups form the bulk of the bonded. The Hindu minority in Pakistan are often bonded. An example of the extent of poverty endured by bonded labor is the Tharu community in western Nepal which typically gets 2 meals a day and a sack of grain at harvest time as the only form of payment. (See www.The-south-asian.com/Nov-2002/bonded_labor.htm).

Genicot (2002) has shown that abolition of bondage would be beneficial to the laborer in a rural village economy where bonded laborers work exclusively for the landlord. Being free from bondage would enable laborers to avail of a variety of borrowing and saving opportunities rather than exclusive reliance upon the landlord. Because it provides work security, laborers that are bonded voluntarily accept the exclusive relationship with the landlord. But this leads to a vicious cycle of poverty. Substituting access to credit from local credit institutions for an exclusive relationship with the landlord, the chain of bondage can be broken and more opportunities developed for increasing welfare of the chronically poor.

1.3.3 *Child labor*

The children in chronically poor households are often forced to work to help families survive. The bulk of child labor in Asia is in the agricultural sector. In Bangladesh it is estimated that over 80 percent of economically active children are working in agriculture and the figures are comparably large for India and other South Asian countries (see ILO, 1997). As a result of poverty in the family, child labor is widespread. Children are subject to bonding in South Asia to help their families pay off debts to the landlord. They are also forced to work long hours and face risks of snake and insect bites. They also suffer from a high incidence of respiratory infection from working outside in damp fields without proper shoes and clothing. Child labor statistics displayed in Table 1.8 show the estimated relationship between the total number of children and the number of child workers. These reported figures are also likely to be underreported and percentages are likely to be substantially higher among the chronically poor.

Children are forced into the labor market to help out with the family. Work can exist in a variety of occupations including as domestics, in export oriented industries, particularly textiles, apparel and hazardous industries such as brick kilns, glassware and stone quarrying. Child labor is also widely observed in parts of Southeast Asia. Children are kidnapped, smuggled and forced into prostitution or slavery. (See Nickolas Kristof's blog at <http://www.facebook.com/Kristof> and Nickolas Kristof, 2009).

Table 1.8 Child Labour Statistics

Country	Working Children	Total Children	Percent Who Work
Bangladesh	5.05 million	35.06 million	14
India	11.2 million	210 million	5
Nepal	1.660 million	6.225 million	25
Pakistan	3.3 million	40 million	8
Sri Lanka	0.475 million	3.18 million	15

Source: <http://www.ilo.org/public/english/region/asro/newdelhi/ipcc/index.htm>.

Note: Children ages 5–14.

Child labor is prevalent in the Philippines, particularly in industries producing and exporting garments and wood products. (See <http://www.dol.gov/ilab/media/reports/iclp/sweat/philippines.htm>). In Indonesia over 2 million children under the age of 15 are employed, primarily in rattan and other furniture manufacturing and in the garment industry (see <http://www.dol.gov/ilab/media/reports/iclp/sweat/indonesia.htm>).

Childhood deprivation appears to be rather serious especially in the Mekong countries of Cambodia, Laos and Vietnam. According to Moore (2005) above 35 percent of children are severely deprived of two or more basic needs (i.e. access to shelter, sanitation and safe drinking water). Using a two wave panel data from the Vietnam Living Standard Survey conducted in 1992 and 1997, Gunther and Klasen (2007) reported that 38 percent of children in Vietnam were suffering from chronic poverty (Figure 1.1).

The well-being of children appeared to be less stable than that of adults. Despite the decline in absolute poverty in Vietnam due to

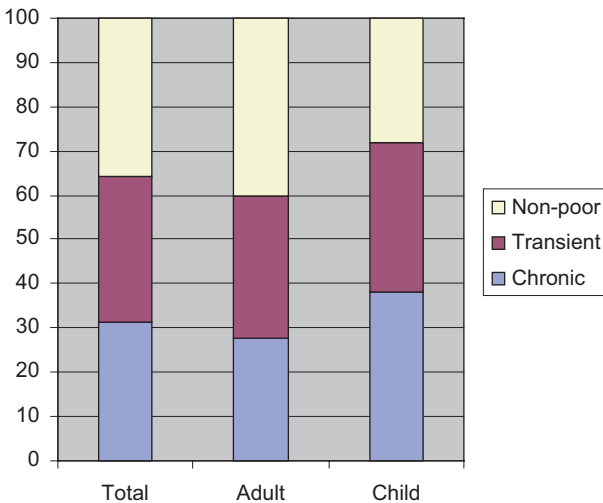


Figure 1.1 Poverty Rates in Vietnam, 1992 to 1997

Source: Data from Gunther and Klasen (2007, Table 1).

Note: Survey of 4,305 households tracking 17,829 individuals over a 5 year period.

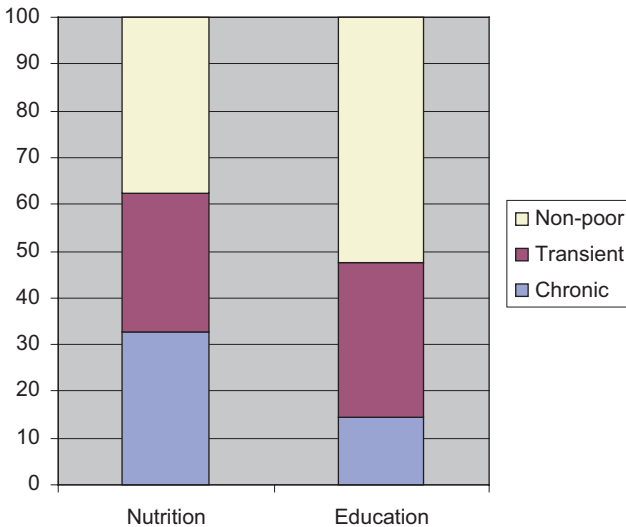


Figure 1.2 Non-Income Poverty Rates for Children in Vietnam in 1992 to 1997

Source: Data from Gunther and Klasen (2007, Table 1).

Note: Survey of 4,305 households tracking 17,829 individuals over a 5 year period.

significant economic growth between 1992 and 1997, the high ratio of children in chronic poverty is still worrisome. Educational well-being was a mere 15 percent for the chronically poor children as compared to over 50 percent for non-poor children (see Figure 1.2).

Efforts to ban child labor are based on the premise that parents are selfish. The evidence presented above suggests that decisions to send children to work are based on family survival. If parents act out on the need to ensure this survival, Basu and Van (1998) show that banning child labor is not the solution. Where child labor and adult labor are substitutes there are two equilibria — one where child labor persists and another when adult labor is paid enough so that children do not have to work. Rather, higher wages for parents will result in children going to school rather than working or even working after school, as suggested elsewhere. Basu and Van (1998) extend the multiple equilibria framework to show that women can be prompted to work outside the household if incentives are sufficiently attractive.

Basu (1999) goes a bit further and suggests that children should be prevented from working in dangerous occupations and that collaborative interventions can be used. These interventions involve restricting the number of hours children can work and making school attendance compulsory. At the same time, schools can be improved and free lunches provided. To prevent capital flight to countries which have not adopted child labor legislation, Basu (1999) also suggests the adoption of international labor standards for child labor that embody suggestion for safety and compulsory education while at the same time allowing children to work after school if needed to support their families. The evidence and theoretical models of Basu (1999) and Basu and Van (1998) suggest that the key to eliminating or reducing child labor lies in raising incomes for poor families so that they will have to rely less on their children to supplement family income.

1.3.4 Gender

There are several types of gender discrimination that result in the perpetuation of chronic poverty. Women and girls are often discriminated against within the household. Boys receive more human capital investment than girls and boys are given more education, food and health care. Birth weight, general health, literacy/education and life expectancy are also much lower for girls and infant mortality, stunting, anemia are higher. The cycle is perpetuated from generation to generation. Girls who grow up in such deprived environments are much more likely to be illiterate, sickly and die at an early age. They are also likely to pass these characteristics onto their own children.

It is clear that girls who grow up stunted or anaemic are more likely to be underdeveloped for childbirth and face higher risks of maternal and child mortality and of low birthweight and stunting among their own children. (ACC/SNN, 2000).

It is also more likely that children born into such environments will have a greater probability of being mentally challenged as they receive

less than adequate levels of nutrition and choleric intake. Global gender discrimination, including abortion, female infanticide poor health care, overwork and neglect have resulted in a stark imbalance in gender. Klasen and Wink (2003) estimate that as many as 80 million women in India and China are “missing” in the sense that the observed number of women is 80 million lesser than expected if there was no gender discrimination. This is 6.7 percent of the expected female population in China and 7.9 percent of the expected female population of India (see Klasen and Wink 2003, p. 264 and also Chronic Poverty Research Center, 2004 Chapter 2).

The one-child policy in China has resulted in further discrimination against girls. Orphaned and abandoned children are predominantly girls and the incidence of abortion has increased even though the one-child policy permits rural households to have a second child if the first is a boy. Families who violate the one-child guidelines are subject to severe penalties including higher taxes, ostracism and loss of jobs. As a result, there are strong social reasons for aborting the first born if it is a girl. Infanticide has also increased but it is difficult to obtain good estimates of the incidence of infanticide although the number of missing women suggests that it is high.

In a study of mother’s education and survival of female children in Bangladesh, Bhuiya and Streetsfield (1991) found that girls infant mortality was about the same as boys in a section of rural Bangladesh until the age of 6 months, when girls mortality began to increase. The authors surmise that 6 months is the age at which babies begin to eat solid food and when differential gender treatment begins. They were able to document that baby girls received less food and health care which resulted in higher infant mortality for girl babies. Logit analysis for nearly eight thousand births showed that mother’s education reduced the risk of infant mortality for both genders but still remained higher for girls. The age of the mother was not an important explanatory variable in explaining infant mortality differences.

The gender gap in adult literacy is also high, particularly in South Asia. Table 1.9 shows the extent of this discrimination. Female literacy rates are over 20 percent lower than male literacy rates in all countries.

Table 1.9 Adult Literacy Rates by Gender

Country	Adult Illiteracy Rate for Females — As Percent of Cohort	Adult Illiteracy Rate for Males — As Percent of Cohort	Gender Gap — Difference Between Female and Male Literacy Rates
Bangladesh	70.1	47.7	22.4
India	54.6	31.6	23.0
Nepal	76.0	40.4	35.6
Pakistan	72.1	42.5	29.6
Sri Lanka	11.0	5.6	5.4

Source: Chronic Poverty Research Center (2000).

Note: Data is from most recent year available.

Women are illiterate at a rate of over 70 percent in three out of the five South Asian countries.

Women and girls are also discriminated against in the workplace. Since they receive less education they are automatically excluded from many jobs. They are forced to work as manual labor or in farming related chores such as animal husbandry, cooking and collecting fire-wood and gardening. They are exposed to carcinogens from inhaling smoke from wood burning fires and injuries from carrying heavy loads. In many parts of India women serve as beasts of burden, pulling plows and carrying heavy loads on their heads at construction sites. They also receive lower pay for equal work. Trade unions in four Indian states reported wage rates for women that are 50 percent to 60 percent of male workers for the same job (see ILO, 2008).

Teenage pregnancy also tends to be higher among females with little formal education. Poor adolescent girls who get pregnant are likely to have many children, contributing towards high dependency rates and increased poverty. Moore (2005) points out that the birth rate among teenage girls from the lowest income quintile in Philippines is comparable to that in poorer developing countries like Bangladesh. The low level of maternal human capital for the young mothers could result in chronic poverty for their children thus feeding a vicious cycle of poverty.

1.4 Income and the Ability to Work

Those with limited earning capacity — the young, the disabled, the victims of conflict and displacement, the sick, the aged, the uneducated and illiterate are most likely to be chronically poor. All of these groups suffer higher than average rates of chronic poverty because they lack the earning power to lift themselves to a higher standard of living. This kind of income poverty is quite pervasive and hits all demographics including those subject to discrimination. While those without education can still work, they often do not make enough to escape poverty.

One large group, agricultural laborers having low levels of education and literacy, are subject to high rates of chronic poverty. 90 percent of the lowest caste in India, the dalits (formerly known as untouchables), work as laborers and many are in chronic poverty. Similar rates of chronic poverty are found among the uneducated and illiterate in other countries in South Asia. Without any formal social security, the poor elderly who are unable to work are dependent on relatives for support. The young who are living in poor households without any access to public health or education are more likely to be sick, suffer from diseases such as malaria and dysentery and to remain illiterate as they grow up. Many children are forced to the streets as orphans or beggars, working for low pay in the garment industry or in other occupations. Among those that can work, income poverty is primarily caused by a dramatic shortfall in the human and physical capital required to earn enough money to feed, clothe and house themselves and their families. Those who are too young, too old, disabled or sick also suffer from income poverty although they are essentially unable to take any actions on their own to change their situation.

1.5 Vulnerability

Households are vulnerable to poverty for a number of different reasons. Markets can collapse; workers may become sick or disabled. Weather factors can reduce crop yields. Price fluctuations can result

in loss of income or higher prices for products purchased in the market. There are a number of research papers dealing with vulnerability (see Calvo and Dercon, 2005, and Sarewitz *et al.*, 2003, for references and discussion). Simply, vulnerability can be viewed as the exposure to downward risks. Risk is the probability of loss resulting from a specific outcome. Vulnerability pertains to the possible losses that could arise from changes in an existing condition or state of nature while risk is a more focused chance of loss from a particular event.

Vulnerability can be expressed, but not necessarily confined to, in terms of probabilities. Vulnerability can also be a more general term designed to describe an environment of susceptibility to undesirable changes. For example, New Orleans was vulnerable to flooding before it was hit by Hurricane Katrina, and the World Trade Towers were vulnerable to attack before September 11, 2001. However the vulnerability to such a flood or attack was difficult to assess. It is also difficult to insure against losses resulting from these incidents.

If one group is subject to higher downside risks that result in poverty, they are more vulnerable. Furthermore, the greater the risk that they will experience severe poverty, the greater is their vulnerability. Vulnerability is an *ex ante* concept and will supplement the *ex post* measures of poverty such as being below the poverty line. If the probability of entering into poverty increases then the vulnerability to poverty also increases. Other things being equal, a family will try to avoid as much risk as possible by opting for a living situation where it is less vulnerable to poverty in the sense that its chances of experiencing poverty in the future will be lower.

However households will balance vulnerability and risk with the possibilities of earning higher incomes. Vulnerability is related to risk. However vulnerability cannot be easily translated into expected outcomes as the New Orleans flood and the twin towers attack demonstrate. At the same time people will try to avoid vulnerable situations and they do this by pursuing less risky alternatives. Farmers working the slopes of volcanoes in Indonesia can expect higher yields since the soil is more fertile than in river valleys where farming has been going on for centuries and the soil may have become less fertile.

However, these farmers are more vulnerable since they will lose everything if there is a volcanic eruption. In general rural villages often choose planting options that minimize vulnerability that can arise if prices of inputs required to cultivate new varieties varies or if there is a crop failure and they fail to repay loans used to buy these inputs. Similarly, moving from subsistence to cash crops may introduce vulnerability to market fluctuations, exchange rates and other variable factors (see Sen, 1981, p. 126; Calvo and Dercon, 2005). There have been numerous studies of how households react to changes in these vulnerability factors and the perceived risks that accompany them (see Ramousset, 1976). Because of volatility in income and (to a lesser extent) the availability of social services, the vulnerability to poverty is significantly higher than the level of poverty at any time.

In a study of Indonesian poverty (Chaudhuri *et al.*, 2002) used a regression model to predict the level and volatility of poverty at the regional level. They found that the proportion of the population facing a non-negligible level of poverty was considerably greater than the observed fraction of the population that is poor. The main source of vulnerability for rural households and for the less-educated was the persistently low level of consumption. The most vulnerable groups reside in the outer islands of Indonesia, east of the major islands of Sumatra, Java, Sulawesi and Kalimantan in the Maluku and Papua provinces. Poverty levels are also high (over 30 percent) in Aceh and East Nusa Tenggara. The 1997 financial crisis had a significant impact on the most vulnerable groups in the outer islands.

The incidence of poverty and chronic poverty for the provinces of Indonesia are displayed in Table 1.10 for the years 1996, 1999 and 2004. Chronic poverty rose in every province between 1996 and 1999, more dramatically in the provinces with the highest incidence of chronic poverty and more rapidly than transient poverty (not shown). By 2003, overall rural poverty had declined pretty much across the board with the exception of Aceh, Riau and Northern Sumatra where the 2004 Tsunami did so much damage. The crisis also had a much larger than proportional impact on the poorly

Table 1.10 Poverty Incidences in Indonesia 2004

Province	Rural Poverty 2004	Rural Poverty 1999	Chronic Poverty 1999	Chronic Poverty 1996	Difference in Chronic Poverty 1999–1996
Aceh	33	13.6	1.2	0.5	0.7
North Sumatra	17	15.1	2.2	0.3	1.9
West Sumatra	10	9.4	1.4	0.0	1.4
Riau	18	9.4	3.3	0.8	2.5
Jambi	10	17.1	4.4	0.9	3.5
South Sumatra	21	23.5	6.0	1.1	4.9
Benkulu	21	20.6	7.2	1.9	5.3
Lampung	23	38.1	17.2	2.1	15.1
West Java	13	26.8	7.2	1.0	6.2
Central Java	24	32.9	9.9	2.4	7.5
East Java	24	33.6	10.3	2.4	7.9
West Nusu Tenggara	21	41.6	20.1	13.5	6.6
East Nusu Tenggara	30	62.0	51.4	39.9	11.5
West Kalimantan	14	29.4	14.7	5.1	9.6
Central Kalimantan	12	12.2	5.0	0.1	4.9
South Kalimantan	8	20.0	7.3	0.4	6.9
East Kalimantan	19	21.8	10.2	0.8	9.4
North Sulawesi	12	24.9	14.1	5.2	8.9
Central Sulawesi	23	28.0	16.1	3.5	12.6
South Sulawesi	19	36.6	19.9	10.9	9.0
Maluku	40	48.2	36.8	22.6	14.2
Papua	49	58.0	54.5	40.2	14.3

Source: Sussenas reported in Asian Development Bank (2006) and Suryahadi and Sumarto (2003).

educated and those making a living in agriculture. Chronic poverty among those without a primary education rose from 6.4 percent to 19 percent nationwide and from 7.2 to 18.7 percent among agricultural workers. Analysis of poverty vulnerability by gender showed virtually no difference between men and women, a result that is consistent with findings in other countries (see Dreze and Srinivasan, 1997). Overall the crisis raised the chronic poverty rate from 3.2 percent to 9.5 percent.

The average vulnerability to poverty, that is the probability that a person will be poor in the future rose to 27.2 percent in 1999 from 16.6 percent in 1996. Furthermore, the proportion of the highly vulnerable — those who have at least a 50 percent chance of falling into poverty rose from 7 percent before the crisis to 18.4 percent after the crisis.

In a study of poor villages in two of the poorest provinces of India (Uttar Pradesh and Bihar) Parker and Kozel (2007) found that lack of social capital and savings, together with susceptibility to illness and disease were the main factors responsible for high volatility in income and consumption, mainly in a downward direction. They also found that the persistence of long term poverty and its volatility were closely related to social classes and status. Scheduled castes and scheduled tribes lived in segregated areas within their villages which restricted their access to a wide variety of infrastructure and social services that were available to others in the village.

... resources such as drinking and irrigation water, schools, health posts, infrastructure projects, Public Distribution System (PDS) shops etc become concentrated in the wealthy or dominant-caste communities. When the school is at the far end of the village, the poor are less likely to enroll their children (especially girls) and low caste people have expressed unwillingness to brace the insults and humiliations they receive when attempting to utilize PDS fair price shops and other resources located in high-caste neighborhoods. (Chaudhuri *et al.*, 2002, p. 20).

Lack of access to government services and the isolation of particular classes contribute to the inability to obtain outside help when someone in the family becomes ill, injured or incapacitated with a long term disease such as tuberculosis or diabetes. Lacking support from family or friends, poor families either have to sell assets or resort to borrowing which drives them further into poverty and often to bondage relationships for themselves and their families. Many of the resources intended for the poor such as basic public health services and education are co-opted by the wealthy and powerful, leaving the poor without any hope for using these resources to better their lives. Scheduled tribes and scheduled castes are particularly vulnerable to

shocks that can come from illness, poor weather, a poor harvest, accidents, violence and volatility in prices for cash crops. The vulnerability of the poor is reinforced by their lack of job stability. Few members of the lower caste households in rural Uttar Pradesh had permanent or secure job. Over 50 percent were employed as agricultural labor or non-farm labor while another 20 percent were self employed in the farming sector. Few of the lower castes have a significant amount of land (Chaudhuri *et al.*, 2002, p. 14).

Chronically poor farmers are usually unable to get access to irrigated land and the rain fed land they cultivate is often marginal and vulnerable to droughts or floods. As a result, crop yields and farmers earnings are quite volatile. When the harvest is bad chronically poor farmers often are forced to resort to borrowing from the landlord or from friends or family. The chronically poor have limited access to formal credit markets where interest rates would be substantially lower than rates charged by money lenders or their landlords. As a result, the chronically poor fall into the trap of bondage, where they sell their labor to the landlord at below market rates and become more like indentured servants than free workers (see Suryahadi and Sumarto, 2003).

Unexpected events often affect those who are already poor. IFPRI (2007) reports that consumption of households in the lowest income deciles fluctuated much more than consumption of families in the richer deciles in Pakistan (see Alderman, 1996) and China (see Jalan and Ravallion, 1999). This suggests that those families in the lowest deciles were less able to protect themselves against shocks and would have probably had borrow to smooth consumption. These shocks are usually unavoidable. In Pakistan, for example, a large proportion of variation in household expenditure was the result of weather shocks (World Bank, 2002).

The lesson that can be drawn from the above analysis of vulnerable groups in Indonesia, India, Pakistan and China is that social protection for the vulnerable should be a high government priority. In the poorer deciles of the income distribution, many households are only a few steps from a disastrous downward spiral into poverty that can only be avoided by some form of social protection.

1.6 The Confluence of Forces and Poverty Dynamics

Surely income poverty takes center stage when looking at headcount ratios and summary statistics about poverty. Income is a key variable in assessing what progress is being made in reducing poverty. The substantial progress in reducing poverty in the 1980s and 1990s was primarily the result of raising incomes for the rural poor. As a result of the green revolution, total factor productivity increased along with the marginal product of labor (see Lipton, 2005). This helped to lower the rate of unemployment as well as prices of staple goods for the poor. Without raising income chronic poverty cannot be effectively reduced in the long run.

Nonmonetary factors are also important in and of themselves and also as they interact with monetary factors. Chronic health, nutritional and educational poverty often result in reduced ability to do productive work which results in lower earning capacity. Stagnant income and poor health and nutrition combine to put a stranglehold on the poor that is so tight that successive generations are trapped in its noose.

In other settings, low income and poor health and nutrition may not always be closely associated. In a study of chronic poverty in Vietnam, Baulch and Masset (2003) found that chronic food poverty in reflecting income poverty, are not always correlated with stunted growth and lack of any primary school education. While low income, poor health and low nutrition are all found in the ethnic minorities living in the mountainous North and Central Highlands, there are also many chronically malnourished adults in the richer Red River and Mekong deltas.

While it is true that generally over time both monetary and non-monetary indices of chronic poverty do tend to move together, it is important to recognize the multiple dimensions of poverty and the interrelationships between monetary and nonmonetary factors.

It is also important to understand the dynamics of chronic poverty. The answer to the question “Who are the chronically poor?” will change over time. Some families will escape the poverty trap while others

will be driven into poverty. In a study of Bangladesh, Sen (2003) found a number of factors helped to lift families out of poverty over time. These factors include a decrease in the dependency ratio (fewer children and more working adults per family), crop diversification, rapid acquisition of human resources (more education), adaptation of high yielding rice varieties, increased access to land and diversification of employment out of agriculture (into transport, construction, agro processing, petty trading and business) and better access to credit. As these indicators of the status of the poor have changed, so has their status. Those falling into poverty experienced changes in the opposite direction — reduced access to land and credit, greater concentration on traditional planting methods, higher dependency rates and smaller additions to the stock of human capital. Natural disasters and other crises also played a role in driving families further into poverty.

1.7 Where do the Chronically Poor Live?

The bulk of the poor in Asia are caught in a cycle of poverty that has a number of special location features. The term poverty trap has been widely used to describe location factors relating to poverty and chronic poverty. The chronically poor in rural Asia live in widely disperse locations in different countries. In China many of the chronically poor are found in the mountainous provinces of Guangdong, Guangxi, Guizhou and Yunnan in Southwest China. In India, the provinces of Andhra Pradesh, Assam, Bihar, Kerala, Orissa, Madhya Pradesh, Rajasthan, West Bengal and Uttar Pradesh have the highest concentration of the poor. In India more than 70 percent of the poor live in these states and the concentration of poverty in these states is increasing (see Table 1.11). In Thailand, Burma, Vietnam and the Philippines hill tribes have high concentrations of the chronically poor while the outer islands have high concentrations of the poor in Indonesia. Nevertheless irrespective of country these locations have a number of features in common.

Table 1.11 Concentration of Poverty in India in Percent of Poor Below Poverty Line

State	1983	1993/94	1999/2000
Poor states	70	71	76
Richer states	27	26	22

Source: World Bank 2003.

Note: Poor states are Andhra Pradesh, Assam, Bihar, Kerala, Orissa, Madhya Pradesh, Rajasthan, West Bengal and Uttar Pradesh. Rich states are Gujarat, Karnataka, Haryana, Maharashtra, Punjab and Tamil Nadu.

1.7.1 *In remote areas*

The chronically poor often live in remote locations that are far from the centers of commercial activity as well as political influence and power. This distance is measured not only in miles or kilometers but in the time that it takes to reach them. Roads in and out of these areas can be dangerous and sometimes even impassable during the rainy season, or located in treacherous mountainous areas filled with switchbacks and subject to landslides. This leads to high transportation costs and reduced ability to sell surplus agricultural products in market towns. In countries where there are many different islands, the chronically poor often reside on islands that are far away from the main centers of commerce and trade. These include the outer islands of Indonesia and some of the smaller islands in the Visayas in the Philippines and parts of Mindanao. These remote islands have few ports, limited sea traffic and few air links.

1.7.2 *Where agricultural productivity is low*

Agricultural land occupied by the chronically poor rice farmers is in low yielding rain-fed locations, in mountainous terrain with limited opportunities for irrigation or in relatively dry soil where the chances of drought are high. Soil quality is poor and land can be on slopes requiring extensive civil works such as rice terraces to create level fields. Low yielding rice varieties are common, since high yielding varieties require more reliable rainfall and irrigation. The poor farmers

living in these regions often cultivate other low yielding crops such as sorghum and pulses. Natural hazards including flooding and drought are common. In Bangladesh the *char* communities along the river and coastline are periodically flooded. In Pakistan's Baluchistan, Northwest Frontier Province and parts of Sindh the mountain environment results in variable growing conditions and low yields. In the poorer provinces of India, drought and variability in monsoon rains results in periodic crop failures. Poverty is high, and labor bonding is extensive despite being prohibited by law. Rice yields are a fraction of those obtained on more fertile irrigated land and in river valleys. Wage rates are correspondingly low and variability in productivity as a result of weather factors often result in workers in agriculture not being fully employed.

Jalan and Ravallion (2000) found that low food-grain yields were positively associated with chronic poverty in China. In addition, Sah (2007) found that the possibility of a household in Southwestern Madhya Pradesh being chronic poor is 2.5 times more likely if agricultural production is low. Furthermore, households without irrigation are 5 times more likely to be chronic poor. Falling agricultural incomes also can result in households being caught in a poverty trap and forced to consider migration out of rural areas. However, migration does not necessarily imply rising income for the households that do migrate.

1.7.3 In political and social isolation

The concentration of minorities in these remote rural locations is high and they have a limited voice in the political life and in the decision-making process of the community. As a result public resources directed to these areas both by local, provincial and the national government is limited. Their access to markets is restricted by the lack of efficient, rapid and convenient transportation which is costly and often unreliable. Buses and trucks often break down and goods have to be offloaded increasing delivery time and spoilage. Furthermore integration with urban markets can be weak. All of these factors result in high transportation and transactions costs. Social isolation is reinforced by language and social customs that differ from surrounding

communities. In many cases hill tribes speak many different languages and may have difficulty communicating with each other. Social isolation also keeps members of local communities from seeking employment outside of their villages and/or migrating to small nearby urban centers or to larger cities. This social isolation compounds the physical isolation that results from geographic remoteness.

1.8 Why are They Poor?

“Why are they poor?” may sound like a rhetorical question. Obviously they are poor because they fall below the poverty line. Those that are chronically poor are below the poverty line for significantly long periods of time to qualify to be in this chronic category. The main reason for chronic poverty is lack of earning power and the inability to avail of social services such as education, health and sanitation and satisfactory housing. Without the wherewithal to achieve a sustainable standard of living, families in chronic poverty are mired in a long lasting poverty trap. The perpetuation of this poverty trap is the result of a combination of factors, many of which are common to those immersed in this trap in countries throughout the region.

1.8.1 *Income poverty*

We can start with income poverty of primary income earners. The chronically poor are subject to multiple poverty traps relating to their lack of a sustainable income. The first trap is illiteracy. The bulk of the chronically poor are unable to earn enough income to bring themselves and their families out of poverty. The illiterate and poorly educated are forced to work in menial jobs as laborers earning very little. They have few possessions and no physical capital to speak of, not even farm implements or means of transportation. Since they have no saving to fall back on or a network of social services they can rely on, they are vulnerable to shocks that can drive them even deeper into poverty. Poor soil fertility is a characteristic of chronically poor rural areas where agriculture is rain fed and soil fertility is low. Rice grown in upland conditions subject to variable rainfall without appropriate inputs will have yields that are as

low as 20 percent of yields on irrigation land where there is appropriate irrigation and application of fertilizers.

They lack access to credit since they are judged poor credit risks by both formal and informal lenders. As a result they turn to their landlord employers in times of poor harvests, drought and floods or when they are subject to spells of unemployment for other reasons. This cycle of fluctuations in income often results in rural agricultural workers becoming bonded to their employer. Their children are in turn, forced to work and subsequently become bonded as well.

Discrimination also plays a role in keeping the chronically poor from escaping poverty. Lower social classes and castes suffer disproportionately. 90 percent of the dalits, the lowest social class in India are either illiterate or have low levels of numeracy and literacy. They work as laborers for the lowest possible wages. For example, in Bihar, the poorest Indian state, 16.5 percent of the population is Moslem and subject to discrimination and 87 percent of the population lives in rural areas. Generally low levels of education and training lead to a skills trap whereby employers in the region are not interested in developing products and services requiring higher levels of skill. As a result, the region stagnates technologically and workers have few incentives to uplift themselves or their families. This is also the case in Orissa and other poor states as well.

The practice of subsistence farming in chronically poor areas results in isolation from outside markets and a low level of trade with surrounding communities. Subsistence farmers have very little disposable income and bring a limited amount of their production to market. Specialization is not rewarded since there are few opportunities for trade and few middlemen to facilitate sales with other markets. Subsistence farming can also result in farming practices that focus on short term gains rather than longer term soil viability thereby reducing soil fertility by over cultivation.

1.8.2 *Lack of capital and social services*

Isolation and neglect by various levels of government results in a dramatic shortfall in the level of social services provided to regions which

are experiencing chronic poverty. Many chronically poor are undernourished and suffering from poor health. Tuberculosis, malaria, dysentery, stunting, infant mortality and malnutrition levels are significantly higher in poor areas compared with the non-poor. The chronically poor suffer from intergenerational transmission of poor health and sanitation. Mothers unable to get enough nutrition to feed themselves while they are pregnant have smaller babies who are more susceptible to disease and can be mentally challenged from birth. Families have large families in order to provide a social safety net of support for the parents in old age. Instead this often results in a lower standard of living for the family as a whole and increased infant mortality and increased susceptibility to diseases. Lacking working capital small businesses operate inefficiently on a hand to mouth basis, selling little and purchasing and stocking small quantities for inventory. As a result they are unable to take advantage of economies of scale in purchasing or to buy new product lines for fear that they will not sell. As a result there is little innovation and business dynamism in poor regions. Farmers are unwilling to try new methods of cultivation or experiment with new high yielding varieties. High levels of risk aversion constrain the agricultural community to traditional methods and varieties that have a better chance of surviving floods and droughts.

1.8.3 *Environmental degradation*

Common property resources are often mismanaged in chronically poor regions. Many of these regions are already fragile ecosystems. Although logging is a far bigger source of deforestation hill tribes in mountainous areas that depend on firewood for warmth and meal preparation can also contribute to deforestation. Shifting cultivation requires land to be left fallow for a certain time to regenerate the soil and provide protection against soil erosion, landslides and flooding. Shifting cultivation may also result in further incursion into virgin forests and this is a long record of these incursions in the Philippines, Thailand and Burma.

Population pressures and the need for more food can destroy the natural balance between nature and agricultural practices and can also

lead to further deforestation of virgin forests. As environmental damage escalates it also causes further deterioration in living standards on the chronically poor through reduced crop yields, increased risk of landslides, flooding and other natural disasters.

1.8.4 *Lack of diversity, low saving, growth and limited technical transfer*

Isolated agricultural communities that live in chronic poverty are generally risk averse. Living from hand to mouth they do not plan for the future, thus they are unable to amass saving to upgrade farm equipment or livestock or diversify to crops other than rice. Often they are tied to landlords through loans which are not available from other sources. They are income constrained to the extent that they find it difficult to send their children to school. Poor roads and inadequate health and educational facilities also make education and preventive health care expensive. This limits the formation of human infrastructure at an early age. Rather, children often start working instead of going to school. Investment opportunities in business finance and commerce in such communities is limited by the lack of nearby and accessible markets. Because of the lack of resource, physical infrastructure may crumble over time exacerbating the other challenges that face those trying to rise out of poverty.

1.9 Chronically Poor, Transient Poor and Non-Poor

The fundamental difference between the chronically poor and the transient poor is the depth of poverty which persists for an extended period of time (see Table 1.12). The transient poor can come in and out of poverty while the chronically poor remain for years. For the working poor the level of chronic deprivation is pervasive and extends to every corner of their daily lives. It is widespread both in terms of levels of income, physical assets necessary to earn more money and social services such as education, housing, sanitation and health care. Without physical assets, income, education and suffering from potential bouts of illness and disease the chronically poor have no way to

Table 1.12 Chronic Poverty, Transient Poverty and Non-Poor

	Chronically Poor	Transient Poor	Non-Poor
Definition	<ul style="list-style-type: none"> • Chronic inability to generate sufficient income to leave poverty trap • Poverty persistence as defined by the length of years being poor (more than 5 years) 	<ul style="list-style-type: none"> • Vulnerability to income shocks and risks • Temporal slip into poverty for a given time period 	<ul style="list-style-type: none"> • Living above the country's poverty line
Over time	<ul style="list-style-type: none"> • Intergenerational transmission of poverty 	<ul style="list-style-type: none"> • Ability to lift themselves or children out of poverty 	<ul style="list-style-type: none"> • Bequest of income or wealth to future generations
Causes	<ul style="list-style-type: none"> • Permanent multidimensional deprivation such as lack of assets (physical and capital); trapped in low productive activities; high dependency rates and/or location in remote areas 	<ul style="list-style-type: none"> • Exposure to uninsured income risk such as random shocks like natural disasters and accidents to bread earner of the family 	<ul style="list-style-type: none"> • Accumulation of physical and human assets that generate income for the individual or household
Proposed solutions	<ul style="list-style-type: none"> • Policies to increase long term investment in physical and human capital 	<ul style="list-style-type: none"> • Policies to allow smoothing of income/ consumption such as access to credit schemes and insurance options 	<ul style="list-style-type: none"> • Not applicable

Source: McKay and Lawson (2002).

lift themselves out of poverty by themselves given the current regulatory and policy environment and the lack opportunities to earn more income and obtain better education and health services. These families desperately need a way to earn more income and raise their levels of human capital.

There is a culture of poverty among the chronically poor that focuses on everyday survival. There can be no thought of educating your children or uplifting your own skills, health and literacy if it is a daily struggle to survive. There can be no thought of planting higher yielding varieties when you are already deeply in debt to your landlord. Laborers have little hope of finding a better job when they cannot read and write and belong to a tribal minority or lower caste. There may be an option to send children to school to learn to read and write but the cost of doing so is usually beyond the reach of the chronically poor. As a result children of the chronically poor remain in poverty and the intergenerational transmission of poverty persists.

1.10 Rural and Urban Poverty

The major focus of this book is rural poverty. This is because the vast majority of the chronically poor in Asia are living in rural settlements. In the year 2000, the Planning Commission of India estimated that around 70 percent of the poor including both transient and chronically poor lived in rural areas. Nearly 200 million people in rural areas were poor while around 67 million people in urban areas were poor. Furthermore, the level of chronic poverty in rural areas is probably even higher. This is because the rural poor often reside in poverty trapped regions while many of the urban poor live in more fluid circumstance where the children of the chronically poor have a better chance of getting out of the poverty trap. The situation in other countries in South Asia is similar as urban poverty is dwarfed by rural poverty.

This is not to minimize the plight of the urban poor, many of whom live in poverty stricken circumstances in large and growing urban slums, near garbage dumps and along railroad tracks in overly crowded circumstances without proper sewage, clean water, adequate housing or primary health care. Nevertheless, the problems of the urban poor have more to do with the rapid growth of cities and the rapid immigration from the countryside where conditions are even worse and chances of being chronically poor are even higher. Therefore, while recognizing the challenges of urban poverty we focus more on rural poverty.

1.11 Dimensions of Chronic Poverty in Asia

Estimates of chronic poverty differ from traditional estimates of poverty. Chronic poverty will be somewhat lower since only families that have endured poverty from some time are counted as the chronically poor. McKay and Baulch (2003) estimate the number of chronically poor using the World Bank estimates of US1 dollar per day poverty (World Bank, 2003b) and combined these estimates with the likelihood that those in poverty will stay poor for five years or more. Panel data for many countries were used to estimate the transition matrix which shows the likelihood that a person will stay poor for five years or more.

The transition probabilities are displayed in Figure 1.3 and the estimates of Chronic Poverty and Extreme Poverty (US\$1 per day) are displayed in Table 1.13 for Asia and the rest of the globe. Table 1.14 contains chronic poverty and extreme poverty estimates for selected countries in Asia. These estimates are somewhat different from the

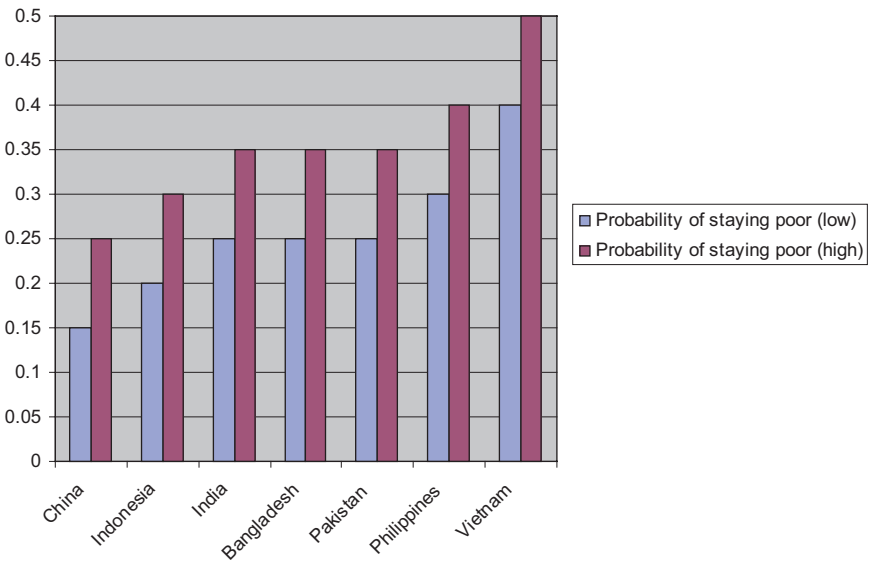


Figure 1.3 Probabilities of Staying Poor for 5 Years Using Panel Data Estimates
Source: Data from McKay and Baulch (2003, p. 6).

Table 1.13 Estimates of Chronic Poverty and Extreme Poverty by Region in Millions

Region	Poverty Measured by US\$ 1 Per Day Poverty Line	Chronic Poverty (low)	Chronic Poverty (high)	Proportion of Poor Who are Chronically Poor (low)	Proportion of Poor Who are Chronically Poor (high)
Sub-Sahara Africa	303.3	100.0	121.3	30%	40%
East Asia and Pacific	312.8	53.7	84.9	17.2%	27.2%
South Asia	535.6	133.9	187.5	25.0%	35.0%
Rest of World	88.0	19.8	28.0	22.5%	31.8%
Global	1,239.7	298.3	412.7		

Source: McKay and Baulch (2003, p. 8).

Table 1.14 Chronic Poverty and Extreme Poverty for Selected Asian Countries in 2000

Country	Extreme Poor (in millions)	Chronically Poor (in millions)
India	450	155
China	230	60
Bangladesh	45	20
Vietnam	18	10
Pakistan	20	9
Indonesia	18	7
Philippines	14	7

Source: McKay and Baulch (2003, p. 12), interpolated from Figure 2.

figures reported in Table 1.2 and Table 1.3, which were compiled using a slightly different methodology.

From Table 1.15 the chronic poverty estimates are for the number of poor who have been chronically poor for at least five years, living on US\$1 per day or less for this entire period. The figures in Table 1.15 are point estimates of the proportion of the poor who are

Table 1.15 Estimates of Very Poor and Poor in Rural Areas of India, 1993–94 (%)

State	Very Poor	Poor
Bihar	27.7	58.2
Madhya Pradesh	17.1	40.7
Maharashtra	16.2	37.9
Orissa	21.8	49.8
Uttar Pradesh	19.6	42.3
All India	15.3	37.1

Source: Datta and Sharma (2000), cited in Mehta and Shah (2006).

very poor. Families in chronic poverty are highly likely to have transition probabilities that are substantially higher than those in the larger extreme poverty group. It is highly likely that they will not be able to break out of the poverty trap and that their children will all be doomed to live a life of chronic poverty with almost no hope of breaking out. Furthermore the concentration of poor in the poorest states has increased over time and that the number of people in poverty has increased as well. Fan *et al.* (1999) report that in two of the poorest states, Bihar and Uttar Pradesh the proportion of total poor in India increased from 11.4 percent in 1960 to 18.5 percent in 1993 (Fan *et al.*, 1999, Table 20) and in Uttar Pradesh from 15 percent to 18 percent. These two states alone accounted for nearly 40 percent of all the poor in India by the early years of this century.

Several estimates of the level of chronic poverty are reported for Pakistan in Chronic Poverty Research Center, 2003, Chapter 7. There is some variation in these estimates. They are, however, lower than the estimates for India — ranging from 6 to 10 percent of the population being chronically poor for 3 to 5 years in a row as measured by falling below the poverty line.

East Asia has approximately 54 to 84 million of the chronic poor and most of them live in China. Chronic poverty in China tends to be concentrated in remote areas of low agricultural productivity and away from the dynamic coastal cities (Chronic Poverty Research

Table 1.16 Estimates of Chronic Poverty in Four Selected Provinces of Southern China, 1985–1990 (%)

Province	Chronic Poverty (%)
Guangdong	15.8
Guangxi	43.4
Guizhou	57.2
Yunnan	51.0

Source: Data from Jalan and Ravallion (1998, Table 1).

Center, 2004, Chapter 10). There are four main groups of chronic poor. They are mainly the ethnic minorities living generally in remote areas, households with older, sick or disabled members, orphaned and abandoned children and the newly poor due to dismantling of state-owned enterprises or resettlers for major infrastructural project or rural to urban migrants. Chronic poverty accounts for approximately 45 percent to 60 percent of poverty in Guangxi, Guizhou, Yunnan but only 16 percent in the more prosperous province, Guangdong (Table 1.16).