



Chapter 8

Addressing Information Problems That Hurt the Poor

THE SEARCH FOR BETTER WAYS to enable the poor to improve their lives is at the heart of every chapter of this Report. Part One investigated how poor countries could narrow the knowledge gap separating them from more technologically advanced countries by improving the ways they acquire, absorb, and communicate knowledge. Part Two has so far examined how to address information problems in finance and the environment, both of which profoundly affect the well-being of poor people. This chapter focuses on specific information problems that affect the poor and describes how governments and international development institutions can work with poor people to address these problems. These efforts will make it easier for people to lift themselves out of poverty.

Nearly 1.3 billion people, about one-quarter of the world's population, live on the equivalent of about \$1 a day or less at 1985 international prices, or roughly the equivalent of \$1.50 a day at 1997 prices in the United States. Most of the world's poor live in East and South Asia (Figure 8.1). Nearly 3 billion people, roughly half of world population, subsist on the scarcely more generous figure of \$3 a day at 1997 U.S. prices.

Can working with the poor to address information failures really make a dent in a global poverty problem of such overwhelming proportions? No one knows for sure. Even so, many countries have promising initiatives under way to address the information problems that most hurt the poor. This chapter describes a few of these initiatives and the problems they address, in the hope of inspiring others to find new ways of helping the poor.

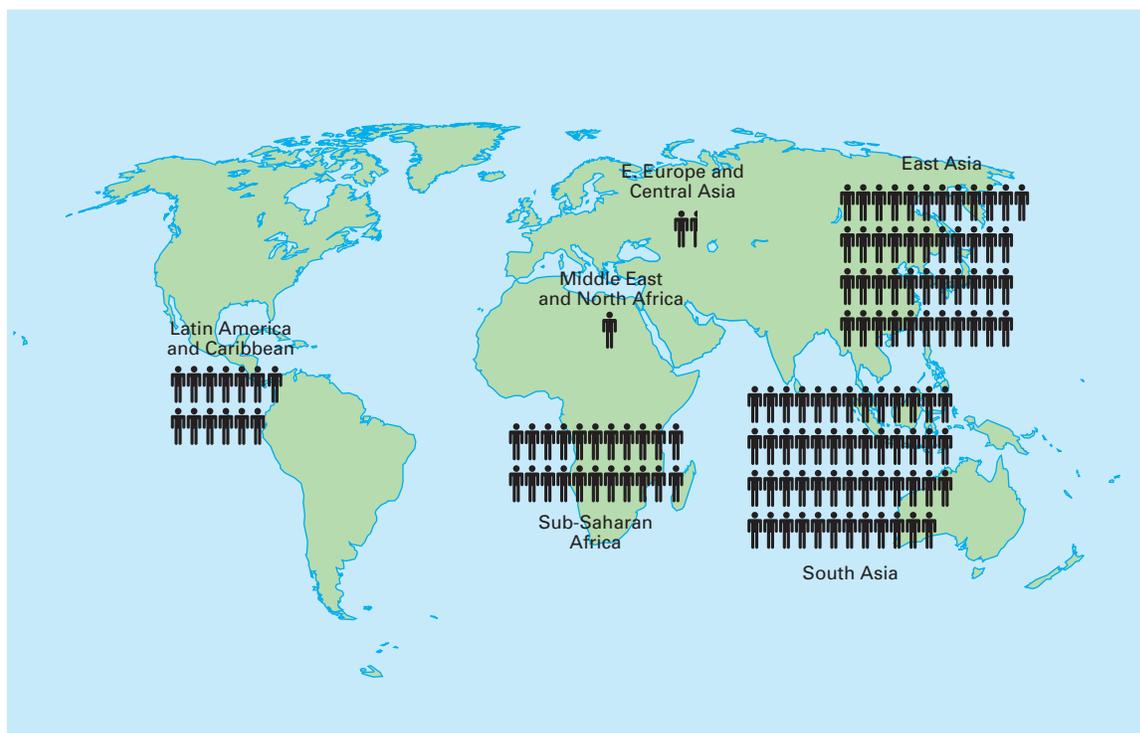
The chapter begins by recalling that listening to the poor is fundamental to all efforts to reduce poverty, and es-

pecially important in addressing information problems. Next, the chapter considers how mechanisms for aggregating and disseminating information are inadequate for giving poor people access to credit and insurance, why this lack of access is damaging to the poor, and what can be done to address such problems. Recognizing that the information problems that hinder credit and insurance will persist no matter what is done to address them, the chapter also considers other measures that can help, such as savings programs for the poor and self-selecting safety nets. And because poverty is multifaceted, the chapter concludes by highlighting the benefits from coordinating the efforts of all agencies and NGOs addressing those many facets.

Listening to the poor

Effective communication involves listening as well as talking—a simple truth too often overlooked in development work. People who work for donor governments, multilateral institutions, and developing-country governments recognize that there is much knowledge that the poor do not possess. But in their eagerness to give them this knowledge, they forget that the poor know a great deal that they do not. Like all people, the poor know their own circumstances, their own needs, and their own worries and aspirations better than anybody. They often have information about where they live—whether savanna or slum—that is not readily apparent to outsiders.

Listening to the poor means more than simply showing up and asking what is on their minds—although this, too, can be worthwhile. It means giving the poor the means to speak, through schooling and communications. It means learning systematically from household surveys and other

Figure 8.1**Poverty by developing region****The world's poor are concentrated in East and South Asia.**

Note: Each figure represents 10 million persons living on \$1 a day or less at 1985 international prices. Source: World Bank 1998d.

instruments and incorporating what is learned in the design of policy. It also means involving beneficiaries in project design and implementation. By listening, and by responding in ways that show that they have heard, donors and governments alike increase the odds that they will earn the trust of those they are trying to help. Trust is important to the poor as they select, apply, and adapt the knowledge most appropriate to their circumstances. Here we consider four aspects of listening to the poor: giving the poor voice, learning about the poor from the poor, communicating through local channels, and providing the information the poor need.

Giving the poor voice

Part One showed in detail the importance of education and telecommunications in closing the knowledge gap between and within countries, focusing on how poor countries and poor people obtain the knowledge they lack. Here we merely spotlight that the benefits of education and telecommunications are not limited to the knowledge

received. A girl who learns to read also learns to write—even if only to fill out a job application form—and that increases her ability to speak on her own behalf. Similarly, a poor person with access to a telephone can get advice from a doctor or a veterinarian—or complain to authorities about the poor quality of health services or the venality of the local irrigation officials. An important part of listening to the poor, then, is ensuring that the poor have the means to speak for themselves.

As Chapter 3 emphasized, education is critical in helping the poor absorb knowledge. One important reason why children from poor households are much less likely to enroll in school and stay there is that many poor parents are illiterate. Lacking education, they are ill equipped to understand its value and therefore less likely than other parents to sacrifice for their children's education. Here government support for education can be especially important.

But education is also important for giving voice to the poor. As people learn, they become more aware of their own circumstances and compare them against possible al-

ternatives. They also discover ways to overcome the obstacles they face. With this awareness comes the ability to articulate concerns and desires, to make suggestions, to voice complaints. For example, in China, where concern is mounting over deteriorating environmental conditions, complaints about air pollution are much more frequent in provinces with higher literacy rates, even after income and air quality are held constant. Researchers estimate that an increase in a province's literacy rate from 60 percent to 84 percent would almost double the number of complaints, from 7.5 to 13.9 per 100,000 people.

This finding strengthens the rationale for public action to ensure that the poor have access to education. The policies for improving enrollments and educational quality discussed in Chapter 3 have enormous implications for the poor. They include targeting education subsidies and programs to those with few or illiquid resources; to mothers, who are the parent more likely to influence a child's education; and to basic education. They also include innovative management, such as stimulating community and parental oversight of schools even in poor areas and fostering lifelong education.

Access to telecommunications—especially telephones, e-mail, and the Internet—can also strengthen the voice of the poor, whether in marketing village handicrafts or in advocating policies that address their needs. Chapter 4 offered some striking examples: the use of e-mail by a small business loan program in Vietnam, the Panamanian women who posted pictures of their handicrafts on the Web, the subsistence farmers in the Philippines who became pineapple specialists thanks to telex and fax machines, the farmer's associations in Mexico that used computers to monitor their rural credit program, the small farmers in Sri Lanka who used the new telephone service to get current information on fruit prices.

New technology has made possible the rapid expansion of telecommunications networks. And private competition, with appropriate government regulation and incentives, provides a means of rapidly extending cheaper telecommunications to isolated communities. Chapter 4 showed how such competition is lowering costs and increasing the availability of telecommunications in Ghana, and how auctions of subsidies are making it attractive to provide pay phones in poor, remote regions in Chile.

Not surprisingly, poor people spend less on acquiring knowledge than other people do. What is perhaps surprising is that they spend even less on some knowledge goods, such as radios, telephones, newspapers, and books, than their lower incomes would suggest. The reason is that the poor must devote a much larger share of their more limited income on food, shelter, and other survival essentials. In Bulgaria and South Africa, household surveys show that the poor spend a smaller share of their income on

newspapers and (in Bulgaria) books than do the nonpoor (Figure 8.2). Illiteracy is part of the reason, of course. This is unfortunate, because basic education and access to media can have powerful effects (Box 8.1). But even for means of communication that do not require literacy, such as telephones and radios, the poor are at a disadvantage: ownership per capita of radios is much lower among the poor (Figure 8.2). Policies to improve literacy (Chapter 3) and increase poor people's access to media and telecommunications (Chapter 4) will help redress this imbalance.

Learning about poor people—from poor people

Learning about the poor often involves systematic learning through household surveys and other instruments. At other times it involves being available and quiet, so that the poor, not used to being heard from, recognize that rare opportunity to make their views known.

A 1988 living standards survey of households in Jamaica revealed some surprising information about two programs designed to help the poor: subsidies for basic foodstuffs, and food stamps for low-income households. Health clinics were the primary channel for identifying food stamp beneficiaries. Although policymakers were worried at first that malnourished children were not being brought to the clinics, the survey found that food stamps targeted to low-income households were much more effective than general subsidies for basic foodstuffs in reaching the poor (Figure 8.3). Ninety-four percent of malnourished children were visiting clinics, validating the design of the program.

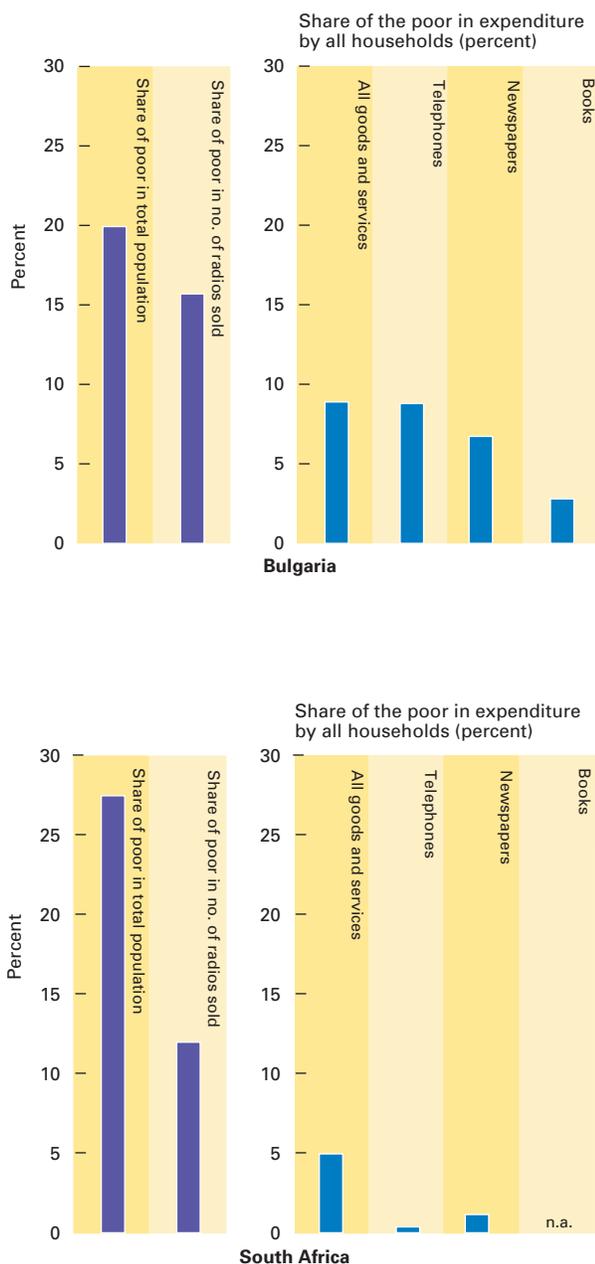
Quantitative techniques are enriched when complemented by qualitative methods of listening to the poor. For example, one promising approach to learning from the poor is the beneficiary assessments that the World Bank uses in its social fund projects, in which communities receive funding for projects they themselves have selected. Initially applied early in the project cycle to identify the priorities of the poor, the assessments are now also a feature of project monitoring and evaluation.

In Zambia the first such assessments from project beneficiaries came from village officials, who gave high ratings to some parts of projects for addressing their priorities. Other beneficiaries, however, knew little about what was being proposed and gave them low ratings. This disparity led the project teams to look more into the politics and power structures of the communities involved. To incorporate the views of the poor, the teams established open consultations in public village meetings. All those taking part signed the minutes, which were posted in community centers. Over time, detailed field manuals were developed and community project committees strengthened. In a recent assessment, the beneficiaries gave 9 of 10 projects high ratings for responding to their needs.

Figure 8.2

Share of the poor in consumption of knowledge goods in Bulgaria and South Africa

The poor consume less than their share of knowledge goods.



n.a. Not available
 Note: Data for Bulgaria are from a 1995 survey of 2,500 households; data for South Africa are from a 1993 survey of 9,000 households. Data in the two righthand charts are shares of monthly expenditure on the indicated good. Source: World Bank, various years.

Box 8.1

Education and the mass media: A powerful combination

Recent evidence points to the power of the joint impact of education and the media. Many studies have shown that mothers' education has a strong, positive effect on child health, but very little is known about how this effect is achieved. Recent work indicates that a mother's education improves child health by increasing the mother's ability to obtain and process information.

Using 1986 data from northeastern Brazil, one study found that parents who regularly made use of mass media, for example who read a newspaper, had healthier children (as measured by height for age). In fact, when these variables are added to the analysis, a mother's years of schooling no longer have a significant independent effect on child height. One interpretation of this finding is that both maternal education and information are essential for improved child health: education is necessary for mothers to process information, but access to relevant information through the mass media is necessary for education to have an effect.

Another study on education and child health, this one for Morocco using survey data from 1990–91, reveals more about the nature of the information that mothers obtain. Mothers' basic health knowledge was found to have a direct effect on child health, and education and access to the media together were shown to be the vehicles for acquiring that knowledge.

Beneficiary participation in the design and implementation of projects is an important way to learn what the poor need. A study published in 1995 of 121 rural water supply projects in 49 countries found that 7 of every 10 projects succeeded when the intended beneficiaries took an active part in project design, but that only 1 in 10 succeeded when they did not. Government support for a participatory approach greatly enhanced the likelihood of participation—and of success. People were willing to offer their views and contribute their efforts when they believed that others would do the same. Whether they were afraid that others would get their say and that they themselves would not, or whether they were willing to make an effort only if everyone was going to do their share, makes little difference. Either way, the government nudged communities to a high degree of information sharing, participation, and community ownership, all of which contributed to project success.

Such local knowledge aside, the poor also sometimes have knowledge valuable to the rest of society. Recall from Chapter 2 how agricultural researchers in Colombia and Rwanda invited local women to choose which of several

new bean varieties to plant in their fields, and how the yields from their selections outperformed those of the scientists by 60 to 90 percent.

The danger of failing to ask the right questions—and of not creating a venue for the poor to speak out—was brought home forcefully to the designers of a donor-funded irrigation program in Nepal. They had assumed that irrigation was entirely lacking, but a project delay luckily allowed the donor to discover that the farmers had already installed 85 fully functioning irrigation systems. It pays to listen.

Working through local channels and earning people's trust Studies show repeatedly that people are strongly influenced by their peers, especially when it comes to adopting new ideas. This is likely to be especially true for the poor, given high illiteracy rates in many societies and a lack of resources to acquire knowledge through other means. People's tendency to learn from their peers makes it important, when working with the poor, to use traditional knowledge channels and to foster new ones.

Working through local groups has been effective in Kenya, where farmers have organized themselves into cooperatives to market their crops, obtain credit, and improve their farming techniques. The national extension program works through these cooperatives and sometimes directly with individual farmers. In a recent survey in seven Kenyan districts, 4 of every 10 farmers attributed their awareness of better practices to other farmers—but fewer than 3 in 10 to extension workers. Farmer-to-farmer communication was most important in the diffusion of simple practices, such as plant spacing, which most farmers adopted. Extension workers contributed more in the diffusion of more complex practices, such as pesticide use, adopted by only a small proportion of the farmers.

Group-centered extension seems particularly effective in diffusing information among female farmers: in the same Kenyan survey, 65 percent of female-headed households that had received extension advice, but only 55 percent of male-headed households, reported that the advice was highly applicable to their work. Group-centered extension programs thus need to be adapted in ways that are sensitive to the characteristics and knowledge of local farmer groups.

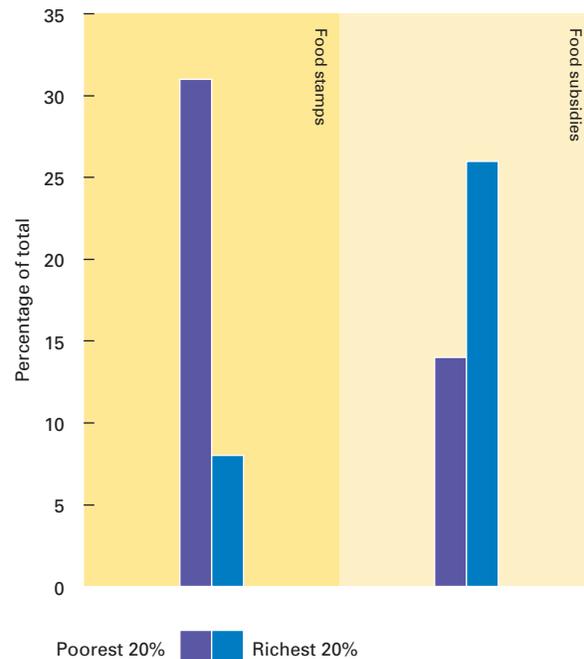
Peer influence was also strongly evident in an 11-year study of a family planning program in 70 Bangladeshi villages. Households in villages where contraception was already prevalent were significantly more likely to adopt contraception. Moreover, Hindus tended to be influenced only by fellow Hindus, and Muslims only by Muslims.

Simply involving local groups and individuals is not enough for effective dissemination, however. It takes winning the trust of the community—and that takes time (Box 8.2). Given the importance of trust, it is not surpris-

Figure 8.3

Distribution of welfare benefits by household income in Jamaica

Food stamps found their way to Jamaica's poor better than did subsidies.



Note: Data are for 1989. Source: Grosh 1992.

ing that the diffusion of knowledge appears to be faster in villages where the social network is more densely knit.

To measure the density and importance of social connections in rural Tanzania in 1995, researchers asked households to list the groups they belonged to: churches, mosques, burial societies, credit associations, political organizations. They then constructed an index of social capital incorporating various aspects of membership: whether it was voluntary or restricted, the transparency of decisionmaking, and the effectiveness of the group. Villages rich in social capital had higher incomes than those with little. They were also much more likely to use fertilizer, agrochemical inputs, and improved seeds.

These examples confirm that learning about the poor and earning their trust require listening. Precisely because the poor have fewer opportunities to voice their concerns than others, and because information failures hurt them more than others, governments and other organizations that seek to assist the poor have a special obligation to listen well. The power to do good—or to do inadvertent harm—is immense.

Box 8.2**Trust and health services in Brazil's Ceará State**

Ceará is one of Brazil's poorest states, with a third of its people in extreme poverty. To serve them, a preventive health program begun in the late 1980s hired 7,300 workers (mostly women) as community health agents at the minimum wage, and 235 nurses to supervise them. The government recruited people already concerned about community health and reinforced their dedication by giving them varied tasks as well as responsibility for results. This engendered a more client-centered and problem-solving approach to service delivery. The agents also made building trust part of their job. Their efforts were supported by a sustained media campaign to promote the program in newspapers, radio, and television. The government also awarded prizes for outstanding performance and invited dignitaries to visit communities producing results.

Gradually people came to trust the health workers. Mothers who formerly hid their children began to see the health agents as friends of the community. Within a few years, vaccination coverage for measles and polio in Ceará increased from 25 percent of children to 90 percent, and infant mortality rates declined from 102 per 1,000 live births to 65 per 1,000.

Providing knowledge the poor can use—in a manner they can use

The Overview began by noting that although knowledge has the potential to easily travel the world, it is not always used effectively. For example, millions of children the world around continue to die from diarrheal disease. Because diarrhea kills chiefly through dehydration, oral rehydration therapy can save millions of lives. The therapy involves having the child drink a simple solution that can be made at home from salt, sugar, and water, or by adding water to a commercially manufactured packet containing these ingredients. With government subsidies, the packets typically cost a few cents a dose. Yet even this rather simple technology has not always been delivered in a form the poor can use. Listening to the poor and considering what would work best for them from the outset could save many more lives.

An international campaign to reduce infant and child mortality by promoting oral rehydration therapy has indeed saved the lives of millions of children. But the remedy, despite its promise, is not consistently accessible to all. For very poor households the cumulative cost of oral rehydration packets becomes prohibitive if many bouts of illness must be treated. Similarly, many families do not have firewood to boil water, as previously required by some commercial solutions. Government subsidies to make the packets affordable have also proved a problem. When the

Arab Republic of Egypt's successful dissemination initiative discontinued subsidies in 1991, the rate of adoption plummeted. Households that could have used home remedies did not because commercial solutions had undermined confidence in them. Sadly, infant mortality saw a resurgence. Renewed efforts and support have since reversed some of the setbacks.

The approach taken by the United Nations Children's Fund (UNICEF) in Nepal shows the advantages of listening to the poor and providing knowledge the poor can use. In the early 1980s, deaths from diarrhea-induced dehydration were rising steadily among Nepalese children. Many of the more than 45,000 children who died each year could have been saved through oral rehydration therapy, but only 2 percent of Nepalese households were familiar with it. Because ready-made packets were scarce, the UNICEF program, initiated in the mid-1980s, promoted homemade solutions rather than the commercial alternative. But the promotional material described the treatment in words that applied to both. Rather than depress sales of ready-made packets, the program added to their credibility and increased local demand for them. And with more knowledge of what is involved in the cure, local communities are better able to sustain their use of some form of oral rehydration. The outreach program, having reached 96 percent of the population, helped more than halve the incidence of diarrhea-related child mortality.

The importance of providing knowledge that the poor can use, in a manner in which they can use it, can also be seen in AIDS prevention. Scientists know how the disease is spread and the precautions to be taken. But this information becomes useful to the poor only if those who would share it take time to listen to them, to understand local conditions, and to work with local leaders to develop prevention programs suited to those conditions. The same is true of agricultural extension programs and of fresh approaches to resolving poor people's lack of access to credit and insurance.

Improving access to credit and insurance

The Overview described how farmers with smaller plots, and those who leased the land they worked, were among the last to adopt the new seeds and techniques of the green revolution. With access to neither credit nor insurance, and with few resources of their own to fall back on, poor farmers could ill afford to chance the new technology. They had little choice but to wait until others had shown the value of the advances.

This lack of access to credit and insurance, at the heart of many of the disadvantages the poor face, is the direct outgrowth of an information failure, as discussed in Chapter 5. Wealthy savers lack information about the poor, and so cannot lend to them with confidence. That means the

poor can seldom borrow, or can borrow only at high interest rates. Similarly, insurers lack a reliable means of assessing the effort that a farmer puts into cultivating a crop. Pests and storms may be easily observed and documented, but a farmer's effort cannot. That makes it difficult for an insurance agent or court to discern what really led to the failure of an insured crop—and therefore difficult for farmers to obtain insurance.

The insufficiency of coping mechanisms

Inability to borrow or to obtain insurance limits poor people's ability to smooth consumption over time. To have a buffer against disaster, they must save either cash or grain that can be readily tapped in an emergency. Their lack of access to credit and insurance also means that the poor bear much more risk than others do. A study in rural southwestern China covering the period 1985–90 found that, for the poorest tenth of households, the loss of one year's income due to crop failure led on average to a 40 percent decline in consumption the following year—a devastating outcome. In contrast, for the richest third of households the average consumption decline following a crop failure was only 10 percent of their income—far more tolerable.

Given the risks that the poor must endure, they naturally seek to reduce their exposure. Often this means forgoing productive investments in a child's education, in a new piece of farm machinery, or in new seeds or fertilizer. A study from central India found that the choices that poorer households made to minimize risk—such as planting less of their land with new seed varieties—significantly reduced their income (Box 8.3). Lacking credit and insurance, the poor thus face a bitter tradeoff: accept risk that could lead to disastrous fluctuations in income, or minimize risk in ways that perpetuate poverty.

When hit by a drop in income, poor households often must pull their children out of school to work at home. A study of six villages in India showed that a 10 percent decline in income across agricultural seasons leads to a decline in school attendance of about five days. Because erratic school attendance means in the end less schooling, and thus lower productivity and income for these children when they grow up, this form of self-insurance perpetuates poverty. Efforts to expand educational opportunities for the poor may thus meet with limited success without better understanding of the risks and constraints the poor face. On the plus side, the development of rural financial markets—and of financial markets more generally—may prove an unexpected boon for the schooling of poor children.

To ensure their economic security, many poor people maintain a close relationship with some individual or network with reasons to trust them. They may join village groups, where they can obtain both credit and mutual insurance (Box 8.4). Share tenancy, credit contracts with

contingent repayment provisions, and long-term labor contracts can also provide some insurance. Yet another response is interlinked transactions, in which workers borrow from employers, or borrowers go to work for the local moneylender. In such systems, good knowledge of the attributes of friends, relatives, and neighbors verifies quality, and social sanctions rather than formal legal systems enforce repayment.

Although useful and at times ingenious, these coping mechanisms are typically less effective than more formal

Box 8.3

Why are poor farmers slow to adopt new technologies?

New agricultural technologies are continually being developed and promoted. Recent innovations include improved, high-yielding varieties of staple grains such as sorghum and rice. The new technologies offer farmers greater expected yields and profits than traditional practices, but the innovations have often been adopted slowly, especially by the poor, because poor farmers cannot insure against risk.

Households can offset fluctuations in income through such coping mechanisms as loans, asset sales, grain storage, and transfers from family and neighbors. This enables them to maintain a more stable level of consumption despite fluctuating income. When households cannot smooth their consumption through these mechanisms, as often the poor cannot, they smooth their income instead by avoiding risky, but on average more profitable, opportunities.

How does income smoothing affect farming decisions? Using data collected by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), in central India, one study found a positive correlation between consumption smoothing and risk taking. For instance, small farmers—a group with limited capacity to smooth consumption—planted only about 9 percent of their land with relatively risky, high-yielding varieties, whereas large farmers with better access to coping mechanisms planted about 36 percent with high-yielding seeds.

Another study based on the ICRISAT data shows that farmers who are poor and living in riskier environments choose a safer but less profitable portfolio of assets. In particular, for farmers in the poorest quartile of the wealth distribution, a reduction in a key source of risk (variation in the timing of the monsoon) by one standard deviation would lead to changes in investment behavior that would raise profits by up to 35 percent. But the same reduction in risk would have virtually no effect on the investment behavior of the wealthiest households: thanks to their ability to smooth consumption, risk was less of a problem for them. Since the poorest households are least able to smooth consumption, they are the ones that rely most on income smoothing in the face of risk, even if the cost is sharply reduced farm profits and having to forgo improved technologies.

Box 8.4**Mutual insurance**

Islamic law prohibits charging interest on loans and even the setting of fixed repayment periods. In the words of the Koran, if a debtor is in trouble, there should be postponement to the time of ease. Clearly this dampens the incentive to lend, so how do Muslim households cope?

Data from four Muslim villages near Zaria, in northern Nigeria, from 1988–89, show the importance of interhousehold insurance against income shortfalls. Of 400 households, only a tenth reported not having engaged in any borrowing or lending over the survey period, whereas more than half had both borrowed and lent. Loans were made within tightly knit groups whose members had almost perfect information about each other's needs, activities, and circumstances. Almost all lending was between inhabitants of the same village or between relatives. The loans were very informal, based purely on trust, with no written contract. Repayment was enforced by the threat of exclusion from future borrowing. Indeed, lenders regarded only 1 loan in 20 to be in default.

But what happens when drought afflicts an entire village? When everyone is in trouble, who can afford to forbear? More than half the variation (58 percent) in agricultural output in the region was caused by such aggregate shocks. Although there appeared to be no direct outside lending in the northern Nigeria study, funds did flow between villages through networks and connections with outsiders—here the established Hausa tradition of long-distance trading plays a key role. Such loans between villages are nevertheless far less prevalent than loans within them.

credit and insurance arrangements. Evidence suggests that mutual insurance and kinship networks, because they are restricted to small communities and groups, do not fully insure the poor against an economic shock, especially when that shock affects a whole village or community. So unless credit and insurance choices for the poor can be improved, income inequality and inequitable growth will persist.

Government responses to imperfect credit and insurance markets

Information failures prevent the poor from enjoying full access to credit and insurance, and the adjustments they make to compensate can be costly. Government policies can respond to these problems in three main ways:

- By dealing with underlying asset problems of the poor, for example by improving the distribution of land and strengthening the legal institutions needed for collateral, thus bypassing the need for information

- By establishing institutions that directly address information problems, for example through peer monitoring in microcredit, and
- By recognizing that credit and insurance markets will always be imperfect, and developing complementary programs in other areas to help the poor finance themselves, for example through well-targeted savings programs, safety nets, and education subsidies.

Dealing with fundamental problems that reduce the need for information. Land titling and registration programs increase the value of land as collateral, thus reducing lenders' enforcement costs. And by providing security of tenure, they create incentives to invest in land to increase its productivity. In Thailand one study found that farmers with title to their land who offer land as collateral could borrow more from financial institutions than farmers who lacked title—in the Lop Buri region 52 percent more. Economic outcomes were also far better among titled farmers. They invested more in their land, used more inputs such as irrigation and fertilizer, and obtained higher yields than untitled farmers. Similar evidence has been documented for other countries in Asia, Latin America, and the Caribbean.

But land titling does not always improve access to credit, especially for the poor. Two surveys of 250 farm households in rural Paraguay in the early 1990s concluded that titling provided better access to formal credit for farmers with 15 to 50 hectares of land, but had almost no impact for farmers with smaller parcels. Small farmers were squeezed out of formal credit markets even after receiving title to their land, perhaps because of the high transactions costs of small loans. So, if titling is to alleviate poverty, rural financial reform may be needed as well.

Land titling efforts have been even more disappointing in Africa. A 1993 study of 10 regions in Ghana, Kenya, and Rwanda found that land registration had no effect on access to credit. There land could not serve as collateral because there is no active market in land. Land titling in any case seldom supplants traditional land use rights based on custom, and conflicts between the two systems are frequent. And titling land to facilitate access to credit presumes that sources of institutional credit exist, but in the Africa study there were none.

Hence land reform and land titling, although effective in some instances, are no panacea. Other measures to improve the ability of the poor to pledge collateral—such as more transparent property laws, fewer restrictions on property transfers, and better court systems—can all make the few assets the poor have more usable as collateral. Even where such programs are effective, scope remains for innovative measures to directly address the information problems that limit poor people's access to credit.

Improving information flows among the poor. The best-known mechanisms for improving the flow of information among the poor, and their access to credit, are the group lending schemes for microcredit. These enable an outside lender to tap a source of information that poor people have in abundance: information about each other. Bangladesh's Grameen Bank, Bolivia's BancoSolidario (BancoSol), and similar microfinance programs have quieted skeptics with repayment rates well above 90 percent. Techniques include progressive lending, which start borrowers with very small pilot loans on which repayment installments begin immediately, and training for borrowers in the business of lending.

In Grameen Bank's group lending model, would-be borrowers first form groups of five. Although the loans go to individuals, all group members understand that if any member defaults, none will receive subsequent loans. This gives them an incentive to monitor each other's performance, increasing the probability of repayment. Since the groups form voluntarily, borrowers can use their knowledge of their neighbors to exclude the riskiest, thus mitigating another common problem for lenders.

Group lending also provides opportunities to learn how to gain access to credit markets. This is helpful because many Grameen clients have never borrowed from formal institutions. The group structure compensates for this by providing a way for members to enter credit relationships in the company of neighbors and to keep abreast of each other's ideas and progress. Weekly group meetings facilitate such learning. Myrada, a rural Indian NGO, employs a similar strategy but goes a step further in seeking to establish self-sustaining links between banks and the rural poor (Box 8.5).

In progressive lending, the small initial loans (\$50 or less) build up to larger amounts over time. The first loans, although too small to be profitable to lenders, help them determine the creditworthiness of borrowers. They also give borrowers a low-risk opportunity to learn about lending arrangements and to develop strategies for larger loans. Estimates for BancoSol suggest that 10 to 15 percent of its small borrowers will default. Progressive lending allows bank staff to address credit problems while the amounts are small.

Most microfinance contracts, unlike conventional loans, require borrowers to start repaying soon after disbursement, usually well before investments bear fruit. Borrowers make payments in small, regular (typically weekly) installments until the principal and interest are fully paid. The arrangement alerts lenders to possible repayment problems early on. It also reduces risk for the lender in another way. Since borrowers must have other household income to begin repayment so soon after disbursement, meeting the repayment schedule signals to the lender that borrowers

Box 8.5

Addressing information problems to provide credit to the poor in southern India

In rural southern India an NGO called Myrada wants to put itself out of business in five years by forging links between bankers and the poor. To integrate its credit management groups (*sanghas*) into the commercial banking system, it requires sangha members to assume responsibility for maintaining their own financial records, for forming and enforcing their own lending rules, and for participating in regional organizations (called apex bodies) run by elected sanghas representatives.

The apex bodies teach members how to resolve disputes, select and train new members, and negotiate with commercial bankers for progressively larger loans. Most important, the apex bodies take on long-term management of the sanghas when Myrada staff leave. Myrada is thus a temporary broker for bankers and the poor. Its objective is to help the poor become "bank-friendly," and the banks more "poor-friendly."

Myrada's most mature project, in Holalkere, involves 214 sanghas and about 4,400 people. By mid-1996, three years after the apex bodies were granted full managerial oversight of the sanghas, 81 sanghas were meeting without Myrada's supervision and were receiving loans directly from commercial banks. Perhaps more important, the sanghas are now role models for neighboring villages, with at least three new ones having formed without any assistance from Myrada.

have an independent means to repay if projects do not fare as well as hoped. But early repayment also excludes the poorest households or increases their chance of default.

Externalities are associated with group lending schemes: those who bear the startup costs provide a social facility that benefits all who join. Since startup costs cannot easily be recouped, such schemes may be undersupplied. Thus there is a role for government to encourage the formation of such institutions. It should enable farmers to form groups by themselves, making use of existing self-help groups and grassroots organizations. Beyond providing the impetus for group formation, government may also provide management training, educate members about joint liability and loan recovery practices, provide extension services, and introduce accounting systems and loan evaluation procedures to ensure the success of group lending programs. Government can also play a role in disseminating information about successful group lending schemes.

Innovative measures to help the poor weather shortfalls

No matter how effective the efforts just described, information problems will persist, and the poor will continue

to have a tough time getting credit and insurance. Governments can ease these problems through a variety of programs that help the poor weather unforeseen shortfalls in their income.

Savings schemes

One promising approach is in savings. Many observers have assumed that poor households cannot save, but mounting evidence suggests this is not true. The poor do save, but they often lack a secure and liquid vehicle for the small sums they can put aside. The benefits to poor households from improving savings mechanisms may turn out to be larger than those from trying to fix dysfunctional credit markets. One important advantage of these microsavings services is that they are not hampered by information problems.

Bank Rakyat Indonesia (BRI), which operates in rural villages through its Unit Desa program, shows the value of safe, convenient savings. The program started in the early 1980s with a focus on credit, but bank managers quickly realized that attracting deposits could reduce their capital costs while providing households a much-wanted means to build assets. Now the bank finds that many more households are interested in saving than in borrowing. By 1996 the program had attracted deposits from 16.1 million low-income households and lent to 2.5 million—a decade before, it had had no deposits. Many of the savings accounts are small, averaging less than \$190, and the average depositor is much poorer than the average borrower.

Convenience, liquidity, and safety—the latter strengthened by BRI's being state-owned—tend to be more important for small savers than the going interest rate on deposits. BRI has also adopted novel ways of encouraging saving. For example, it holds a lottery with small monthly prizes as well as annual prizes such as motorcycles, cars, even houses. Depositors receive a free allotment of lottery numbers in proportion to their average balance over the month. The idea has been very popular, and Bolivia's BancoSol adopted it in 1993.

Targeted transfers

Because information problems in credit and insurance markets deprive the poor of opportunities to diffuse risk, basic social services should be publicly provided, at least to the very poor, who are least likely to be able to purchase credit and insurance. Well-targeted safety nets can also reduce the costly adjustments that the poor would otherwise have to make.

Short-term relief programs can expand income-generating opportunities for the poor, reduce inequality in asset-holdings over the long run, and reduce the need for later public action to alleviate poverty. After natural disaster

struck a number of villages in India, public employment programs cushioned the effects on the poor. These programs, together with institutional credit, reduced distress sales of land by poor farmers whose crops had been devastated. In a village in Bangladesh, by contrast, there were no comparable measures to help the poor, and many distress sales occurred. That further polarized land ownership, aggravating inequalities in income and access to credit.

Targeting safety net programs, and government services more generally, is a serious challenge—and a classic information problem. How does the government find and identify the poor? After all, many of them live their lives far removed from the formal economy. And because they harbor a lifelong distrust of authority, many will not present themselves on the mere promise of public benefits. So they remain invisible. Meanwhile, the lure of government largesse attracts many who are not poor.

Means-testing, or restricting eligibility for relief to those meeting certain economic criteria, is a standard approach used in industrial countries to target the needy. But means-testing requires the government to evaluate applicants' claims about their incomes, and often about their assets and earning capacities. And to guard against fraud, information from the applicants must be cross-checked against information from other sources—lenders, other public agencies, potential employers. This can be a major administrative burden for a developing country—on top of the cost of the assistance itself.

One solution is to distribute assistance according to criteria that correlate with need but are easier to observe: for instance, to large families or the elderly (Box 8.6). Governments may also pool information from reputable nongovernmental sources, such as local charitable organizations or microfinance institutions. Giving people an incentive to report abuses is yet another way of working against willful exploitation of the system.

A second solution is self-selection: designing programs so that only the truly needy seek them out. Rather than rely on administrative discretion in selecting beneficiaries, many antipoverty programs can encourage self-selection by the poor. For example, if the wage rate is low enough in a workfare program, only poor jobseekers will participate, and they will move on to other jobs when they become available. A low wage rate can also allow benefits to be spread among more of the poor. A 1997 World Bank project in Argentina offered low-wage work on community projects in poor areas during a period of unusually high unemployment. More than half the participants were from the poorest 10 percent of the population.

Another means of encouraging self-selection improved the effectiveness of a food price subsidy program in Tunisia initiated in the early 1990s. Using information from

Box 8.6**Delivering pensions to the poor in South Africa**

Direct cash transfers, in theory an efficient way of redistributing income and reducing poverty, are rarely used in developing countries, for two main reasons. First, determining who is most needy is often difficult, because much economic activity takes place in the informal sector, through exchanges in kind and through “off-the-books” cash transactions. Second, verifying the identity of those who collect payments is often difficult. South Africa has gotten around this problem by combining means-testing with an age threshold—age being a characteristic that is relatively easy to verify and, in rural South Africa, closely correlated with poverty.

The social pension system pays a fixed sum to women over 60 and men over 65 whose means (defined as the sum of their income and a value assigned to their assets) fall below a specified floor. The benefit is reduced for those whose means exceed the floor on a *rand-for-rand* basis; pensions are not paid to those whose income exceeds a specified ceiling.

To ensure that the payments are disbursed only to those who have qualified, program staff travel in vans equipped with automated teller machines that use fingerprint reading technology. They visit villages once a month, disbursing cash directly to qualified individuals and recording the transactions. The program, begun in 1993, reaches about 80 percent of elderly rural South Africans of African descent, and smaller proportions of elderly people in other racial groups. The program also reaches poor children: among families of African descent, one in three children lives in a household where an elderly person receives a means-tested pension.

household surveys that identified differences in consumption patterns of the poor and the nonpoor, the government designed and marketed, and then subsidized, certain foodstuffs that had the same nutritional value as nonsubsidized foods but were perceived as less desirable. For example, milk subsidies were shifted to reconstituted milk packaged in less convenient half-liter cartons; this discouraged consumption by the rich, who preferred local fresh milk in bottles. Cooking oil subsidies were shifted to a generic mixed oil product purchased from bulk oil drums, and away from varieties of pure olive and vegetable oil marketed to the rich and the middle class in brand-name bottles.

Self-targeting cannot be the only targeting mechanism for some kinds of programs, however. Cash transfers and highly subsidized student loans, for example, will appeal to many people, including the nonpoor. Such situations

may require means-testing that includes some easily observable characteristic, as has been done with pensions in South Africa.

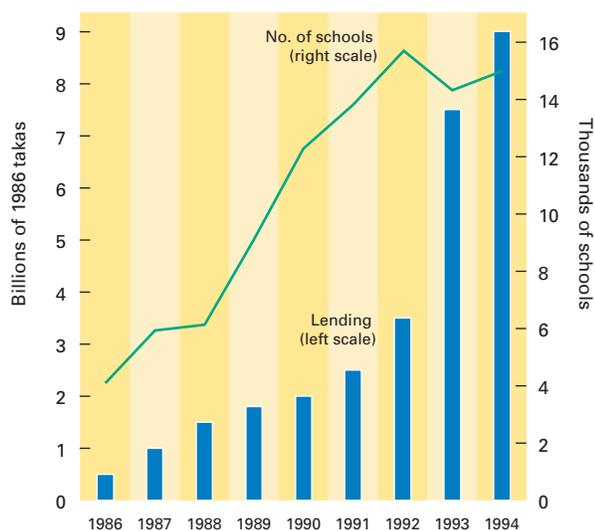
Coordinating efforts at poverty reduction

Because the poor face so many interrelated problems, a program that provides credit for income generation, but that does not help the poor evaluate investment opportunities and does not answer the need for training, will be less than fully effective. Similarly, an agency promoting such credit might be working at cross-purposes with an NGO trying to do the same. Hence the need not just to expand the scope of programs, but also to coordinate the efforts of the many organizations working to reduce poverty.

Indonesia’s P4K program (whose name is the Indonesian abbreviation for a phrase meaning “guidance in increasing incomes for small farmers”) builds on a partnership among the Ministry of Agriculture, Bank Rakyat Indonesia, and local governments to reduce poverty among more than 350,000 families. P4K is administered in 10 provinces by the Ministry of Agriculture’s Agency for Agricultural Education and Training, with provincial managers and staff located in agricultural information centers. The key to the program’s success lies in coordinating the different institutions so that each complements the others. The agency’s field workers serve as contacts with the clients. Local governments help conduct socioeconomic surveys to identify poor villages. They then direct benefits to those with average annual incomes equivalent to less than 320 kilograms of rice per capita (about \$80). BRI provides credit for income-generating activities through 40,000 self-help groups, which harness resources and facilities provided by the government and the private sector. The results: household incomes are up between 41 and 54 percent, and arrears on credit extended are as little as 2 percent of the total.

Microfinance institutions are beginning to tackle the interrelated problems of the poor. Some institutions lend only if borrowers agree to enter educational programs. Some use group meetings not just to collect payments and disburse loans but also to discuss legal rights and other business issues. And some, like the Grameen Bank, promote social development by fostering the opening of schools. Grameen’s expansion has fueled rapid growth in the number of schools supported by groups of borrowers and in the number of children attending these schools (Figure 8.4).

Grameen’s cellular phone enterprise typifies the expansion of its income-generating activities. Grameen Phone, a nationwide mobile telephone company, enables poor women in villages to purchase mobile telephones as economic investments. They then sell telephone services to whole villages or individual clients. The program offers a

Figure 8.4**Grameen Bank lending and schools run by Grameen Bank groups****As the Grameen Bank has expanded, so has its impact on education.**

Note: Lending data are annual disbursements. Source: Khandker, Khaliq, and Khan 1998.

double benefit: the women gain an instrument of power, and the villages a connection to the marketplaces and business centers of the world.

Another multifaceted effort is the human rights and legal education program of the Bangladesh Rural Advancement Committee (BRAC). More than 250,000 clients, most of them women, have learned about their legal rights in business and family relationships, and many have taken steps to protest illegal divorces or to pursue their rightful claims to inheritances. BRAC also provides clients with training in growing vegetables, raising livestock, operating fisheries, producing silk, and engaging in environmentally sensitive forestry. By combining training with

credit, BRAC finds that its clients can build quickly on their new knowledge, making both the credit and the training component much more effective than either would be separately.

Today more than 10 million people borrow from microfinance programs worldwide, but the movement remains young. To push it along, several consortia link microfinance institutions, many of them small and dispersed, into a global network. In three of these consortia—Women's World Banking, the Microfinance Network, and the Consultative Group to Assist the Poorest—participants share experiences and technical assistance. Learning from success and from failure is being facilitated by access to the Internet, which is promoting the rapid and open exchange of news, opinions, and ideas among practitioners, academics, and development organizations around the world.

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Poverty is multifaceted and often self-perpetuating. The poor lack education, adequate health care, access to credit, and such basic assets as land. Many of these problems are linked to each other and to both gaps in knowledge and imperfections in information, which force the poor into economic relationships that limit their productivity. Given the dire consequences of sudden income shocks, the poor naturally avoid risk where they can. But this locks them into a vicious cycle of low-risk, low-return activities that keeps them in poverty.

This vicious cycle can be broken: innovations have come from listening to the poor and adapting institutions to their needs. Land titling, microcredit, microsavings, and better safety nets make it possible, by addressing information problems, to assist the needy while minimizing fiscally burdensome benefits for those less deserving. These innovations will not end poverty overnight, nor are they a substitute for other policies to ensure sustainable, pro-poor growth. But they are crucial elements in a successful antipoverty strategy. And recognizing how information problems lead to market imperfections is a key step in designing realistic policies that will make it possible for the poor to improve their lives.