



Transfers and safety nets

Not all the poor will benefit from the policies discussed in Chapters 4 and 5. In the first place, it may take a long time for some of the poor—including the working poor and those in remote regions—to fully participate, and the old or disabled may never be able to do so. Second, even among those who do benefit from the policies, there will be some who remain acutely vulnerable to adverse events. The first group can best be helped through a system of income transfers. The second group requires a safety net—some form of income insurance to help people through short-term stress and calamities. This is particularly important when food security, and hence survival, is threatened.

As a rule, government interventions will blend elements of both redistribution and insurance. This chapter examines a range of policies under the following headings:

- Food pricing and distribution
- Public employment schemes
- Social security

These complement the policies described in previous chapters and form a crucial ingredient in the overall strategy. Some of them have a surprisingly long history (Box 6.1).

Individuals, families, and communities have ways of coping with poverty. Individuals and families redistribute and stabilize consumption, diversify income sources, migrate, and give and receive transfers. In many parts of Sub-Saharan Africa the term for being poor is synonymous with lacking kin or friends. At the community level these “social security” arrangements are sometimes quite sophisticated. For example, fishing villages in

South Asia, Sub-Saharan Africa, and Latin America often provide for the subsistence needs of old fishermen or of poor fishing families whose male income earners have died. Old fishermen are commonly assigned comparatively easy tasks on shore, and children from needy families are allowed to take some fish from each boat. In some Senegalese villages retired fishermen are granted a fixed share of the catch. This “tax” is paid not only by local fishermen but also by fishermen from other areas. Fishing communities are often well suited to such arrangements because they have a high degree of social homogeneity.

But many of the poor, particularly those of concern in this chapter, are inadequately protected by these strategies. There are limits to what those unable to work can do to protect themselves, and limits to what the households looking after them can do to raise household income to tolerable levels. Growing evidence points to the dissolution of family and ethnic ties and the weakening of community support systems in many developing countries. In addition, coping arrangements that work well in normal times may fail when they are needed most. Poor, vulnerable households, on the margin of subsistence at the best of times, will be hard pressed to protect themselves in the face of a series of shocks. And the effectiveness of community insurance depends crucially on the extent to which local incomes are affected simultaneously. Unanticipated shocks such as severe agricultural fluctuations, deterioration in the terms of trade, and famines can create hardship for entire communities.

The state therefore has a role in aiding households or communities in times of insecurity and in

Box 6.1 The historical antecedents of public action

Public food distribution has a history of several thousand years. In Egypt storage of food by the state, accompanied by subsidized sales and public distribution to the needy, has existed since the time of the pharaohs. It was considered to be the moral responsibility of rulers and was an important element in maintaining social stability when crises arose because of shortfalls in domestic production, military demands, and disruptions of trade. The distribution of a grain or bread ration in ancient Rome and Greece was limited to crisis periods precipitated by war or climatic instability. As rural transport and irrigation systems have been developed and private and public food distribution systems have improved, the ability of governments to avert famine has gradually increased.

Public provision of employment also has a long history as a means of reducing poverty. As early as the fourth century B.C. Indian rulers were advised that when natural calamities struck, subjects should be employed in building forts or waterworks in return for food. Employment on public works later became the main element of strategies for famine prevention in India, and it has proved effective. In eighteenth- and nineteenth-century Europe the poor qualified for relief if they agreed to provide labor or to live in squalid poorhouses. Victorians considered this approach pref-

erable to charitable transfers, which they thought induced laziness. Perhaps the most significant use of public works as relief was the Works Progress Administration, which provided employment for one-fifth of all U.S. workers during the Great Depression of the 1930s.

At the turn of the century assistance to the poor consisted mainly of charitable transfers and poor relief based on stringent needs testing that stigmatized the recipients. These forms of assistance were increasingly challenged on moral grounds as demeaning to the recipients, and the world wars and the Depression created demand that they could not meet. The rise of the modern industrial state allowed the development of formal social security systems based on contributions from workers and employers and on wide coverage. Publicly provided pensions for the aged were an important feature of the new systems. Unemployment provisions were instituted after the Depression. Following World War II coverage became universal, with family allowances and a minimum level of benefits for the sick, unemployed, and aged. The existence of guaranteed public health, income support, and insurance systems has provided to the poor in most developed countries a degree of security that developing countries still lack.

ensuring minimum levels of provision to those unable to gain from the growth process. Effective policies will take into account what individuals and households can do to protect themselves and what their limitations are. Government interventions should also try to involve people in the solutions rather than treat them as passive recipients of relief.

Public provision of transfers and safety nets

In assessing policy alternatives, the tests are effectiveness in reaching the poor and the extent to which the policies compromise other objectives. For many practical purposes, these can be measured by considering cost-effectiveness—the budgetary cost of delivering a given amount of benefit.

Benefits usually change the way the poor and others behave, and this affects cost-effectiveness. For instance, a public employment program targeted at landless laborers may have important second-round effects on local agricultural wages; the program's overall effect on the incomes of the poor may be greater than the wages participants

earn in public employment. This has been observed in various public employment schemes in South Asia. By contrast, child feeding programs may have less than their expected impact if the allocation of food within the household shifts toward other family members.

In measuring the benefits to the poor, governments must also take account of the method of financing. If transfers are financed by printing money, the loss to the poor from the ensuing inflation may well exceed the nominal income transfer. But if progressive taxation is used to finance a policy, the system may be highly redistributive even if the benefits go to the rich as well as to the poor. Often, schemes are financed by cutting spending on other social programs. The net effect on the poor will then depend on the balance between the benefits lost and gained.

Targeting benefits to the poor can be an important way of increasing cost-effectiveness. There are exceptions, but for a given budgetary outlay, schemes that target benefits to the poor are likely to have a greater impact on poverty than universal schemes. The exceptions arise when targeting is

Box 6.2 Reaching the poor through public action

Ideally, government policy would identify the poor without cost and would channel benefits exclusively to them. In practice, policymakers lack information on individual living standards, and the costs of obtaining this information can be high. *Means testing* and other forms of targeting have social costs or cause distortions because they lead to changes in behavior. In the United Kingdom means testing for supplementary benefits requires an elaborate administrative machinery for verification and recordkeeping. In developing countries the identification of income and assets is even more difficult, especially in rural areas, and the administrative problems are likely to be daunting. As a rule, means testing is simply not feasible in these countries.

An alternative is *indicator targeting*. The basic idea is simple. Correlates of poverty are identified from sample surveys or other information, and direct benefits are allocated accordingly. In general, it is less costly to identify the correlates, which may include region of residence, landholding, nutritional status, sex, age, and race, than to measure incomes. Food subsidy schemes in Colombia have successfully combined geographic targeting with further targeting based on

household-specific characteristics. The trouble is that the easily monitored correlates of poverty are often imperfect: some poor people will be missed, and some of the nonpoor will receive benefits. Indicator targeting can also lead to incentive effects—for instance, nonpoor people might migrate to target areas. The challenge is to find good indicators of poverty that can be monitored easily by administrators but cannot be altered easily by the nonpoor. Caste status (in India), widowhood, and old age may be good examples.

A good way to design targeted programs is to make benefits contingent on work, as in rural public employment schemes. Another is to subsidize goods that are mainly consumed by the poor. Such policies are called *self-targeting* because the “cost” they impose will (ideally) make participation desirable only for the truly poor. For example, work in return for wages that are generally lower than other unskilled wages will dissuade those with better jobs or other means of livelihood. This screening method is a key component of employment schemes in both Bangladesh and India. Often, self-targeting is more cost-effective than uniform provision.

administratively costly or imposes substantial losses on the poor (such as income forgone in queuing for food rations). One promising avenue is to use incentives as a screening device so that the poor are encouraged to participate and the nonpoor are discouraged (Box 6.2).

In practice, the success of public intervention involves more than cost-effectiveness. The demands made by different sections of the population, and their ability to exert pressure on the authorities, are often more influential than the government’s economic calculations. Fine targeting based on a single-minded concern for cost-effectiveness can reduce public interest in the vigorous implementation of government programs to help the poor. For example, in the late 1970s Sri Lanka replaced a universal food subsidy with a less costly targeted food stamp program. In time, the benefits delivered by the new program declined. The middle classes no longer gained from the scheme, and although the new program was more cost-effective, it lost crucial political support. Similarly, a food subsidy directed to poor consumers in Colombia was so tightly targeted that it lacked an effective political constituency, and it was dropped at a change of administration. The analysis of public

policy has to be alive to these considerations of political economy.

Food pricing and distribution policies

The poor spend a large part of their incomes on food and can be highly vulnerable to any setback in their ability to obtain it. An important way to protect the living standards of the poor is by guaranteeing their food security—that is, by making sure that they can acquire adequate food at all times. The developing countries have adopted various forms of food subsidy: general food price subsidies, food rations, food stamps, food distribution policies, and food supplementation schemes. These policies can be used to raise the real incomes of the direct beneficiaries, and they can provide a safety net to protect a wider group of the poor against collapses in their real incomes.

General food price subsidies

General food price subsidy schemes supply unlimited amounts of subsidized food to anyone who wishes to buy it. Brazil, China, Colombia, Egypt, Mexico, Morocco, Pakistan, Sudan, Thailand, Tu-

Table 6.1 Distribution of the annual income transfer from the general food subsidy, Egypt, 1981–82

Type of household and income level	Amount of transfer (Egyptian pounds)	Transfer as percentage of household expenditure
Urban		
Poorest quartile	15.4	8.7
Richest quartile	18.1	3.4
Rural		
Poorest quartile	11.9	10.8
Richest quartile	15.2	2.7

Source: Alderman and von Braun 1984 and Alderman 1989.

nesia, and, before 1979, Sri Lanka have all operated schemes of this kind, some national and some regional. Costs ranged from less than 1 percent of total public expenditures in Colombia in 1978–80 to 10–17 percent in Egypt between the mid-1970s and 1984. The experience of Egypt well illustrates some of the advantages and drawbacks of these schemes.

Egypt's marketwide food subsidy program has been costly, but it has succeeded in reaching the poor. In 1981–82 the transfer value represented a sizable portion of the total expenditure of the poorest urban and rural groups—8.7 and 10.8 percent, respectively (Table 6.1).

A common feature of these schemes is that the rich receive a greater allocation per capita than the poor, although this amount often accounts for a smaller share of income. In Egypt urban households in the top quartile received 18.1 Egyptian pounds (equivalent to 3.4 percent of household expenditures), compared with 15.4 Egyptian pounds and 8.7 percent of household expenditures for urban households in the lowest quartile. All benefits going to the nonpoor add to the budgetary cost of reducing poverty. Indeed, if general subsidies are to provide reasonable transfers to the poor, they become very expensive. In Egypt only about twenty cents of each dollar spent reached those in the lowest quartile.

The bulk of Egypt's price subsidy transfer is made by subsidizing bread and wheat flour sold at bakeries and flour shops. Administrative ease is one advantage of general food subsidies. Since most subsidized commodities can be sold through private outlets, public involvement in distribution is not necessary. Central administration of the price mechanism and low investments in infrastructure help to contain transfer costs. In many countries, however, general price subsidies fail to reach many of the poor. Outlets for sale of subsidi-

dized goods are often concentrated in urban areas, either by design or because market channels bypass rural consumers. Rural consumers must have access to markets if price subsidies are to help to reduce rural poverty.

A better way to reach the poor is to limit subsidies to commodities that are consumed mainly by the poor and that form a significant part of their food expenditures. Such goods are not always available and are not always easy to subsidize. But there are examples. In Egypt benefits from subsidies on coarse flour accrue mainly to low-income groups. Shifting Brazil's general subsidy to cassava and away from wheat, milk, beef, and vegetable oils, which are heavily consumed by the higher-income sections of the population, would improve targeting to the poor. The choice of commodity may also influence distribution between sectors. For example, Mexico has a consumer subsidy on maize tortillas. Since outlets are concentrated in urban areas and urban consumers buy tortillas whereas rural consumers make them at home, the subsidy has an urban bias. In Egypt the urban poor gain more from the bread subsidy than do the rural poor, but the reverse is true for the wheat subsidy.

Better targeting of price subsidies to the poor is possible when the government knows where the poor live. The Pilot Food Price Subsidy Scheme in the Philippines is an example of how to improve cost-effectiveness by combining geographic targeting and consumer price subsidies. The National Nutrition Council's anthropometric reports helped to identify poor villages with high rates of child malnutrition. Seven villages were selected to receive price discounts on rice and cooking oil—goods that account for a large part of food expenditures. These were sold through local retailers and were available to all villagers. The scheme improved the nutritional status of both preschoolers and adults. It was highly cost-effective; eighty-four cents out of each dollar spent were transferred. This, however, did not include setup costs for extensive growth monitoring, which have to be taken into account in determining overall cost-effectiveness. Few countries have in place the national nutrition surveillance systems needed to run such schemes.

Rationed food subsidies

An alternative to a general subsidy is to provide a quota, or "ration," of subsidized food to households while permitting unlimited sales on the open

Table 6.2 Distribution of the monthly transfer from food subsidies, Sri Lanka, 1978–79

<i>Subsidy and household income level</i>	<i>Amount of transfer (rupees)</i>	<i>Transfer as percentage of per capita expenditure</i>
General wheat and bread subsidy		
Poorest quintile	4.3	7.6
Richest quintile	7.8	3.8
Targeted rice ration		
Poorest quintile	11.1	19.6
Richest quintile	3.3	1.6

Source: Edirisinghe 1987 and Alderman 1989.

market. Schemes of this type operate or have operated in Egypt and in South Asia (Bangladesh, India, Pakistan, and Sri Lanka). In addition to transferring income, ration schemes ensure access to a regular supply of basic staples at reasonable prices. The absolute transfer under a general ration is similar for all income groups. Thus, rations tend to be more progressive than general food subsidies. For example, the absolute transfer to the richest quartile in urban areas under Egypt's general food subsidy was 20 percent greater than that received by the poorest quartile, whereas with the general ration the rich received 5 percent less than the poor.

The Sri Lankan general rice ration scheme, which operated between 1942 and 1978, had a large impact on poverty both because the benefits that reached the poor were high and because there was extensive coverage of different types of poor people. To reduce costs, the government in 1978 restricted distribution to the poorest half of the population. The targeted scheme can be compared with the general subsidy on wheat and bread of the same period. As Table 6.2 shows, benefits to the poor from the curtailed rice ration are greater both in absolute terms and in relation to income. Given adequate coverage of the poor, targeted rations thus represent an improvement over both general subsidies and unrestricted rations.

A similar pattern of transfers is seen in the distribution of foodgrains through fair-price shops in certain states of India. In Kerala in 1977 the poorest 60 percent of the population received 87 percent of the foodgrains distributed. Kerala is unique in that rations are spread fairly evenly between the rural and urban populations. In other parts of India as well as in other countries, including Bangladesh and Pakistan, the benefits of ration systems have gone disproportionately to urban consumers—although poverty is mainly a rural phenomenon in South Asia.

As is true of general subsidies, ration schemes are often limited in coverage because the infrastructure and retail networks needed to implement the systems in rural regions are lacking and because of a desire not to upset production incentives. These are often compounded by a lack of political will to assist the rural poor. Guaranteeing large sections of the population a basic ration on a long-term basis may place a great burden on the government in terms of both administrative capability and cost.

In the past ration programs have often been set up for political purposes and have rarely been targeted to the neediest. But it is possible to introduce a degree of self-selection and better targeting into rationing schemes without costly means testing. Ration outlets can be strategically located in poor neighborhoods. The quantities distributed should be small enough to allow poor households without much cash to participate. The opportunity cost of buying a restricted quantity at a ration shop located in a slum is greater for the rich than for the poor. In Northeast Brazil small amounts of subsidized basic foods were sold through shops in poor neighborhoods that the well-to-do regarded as unsafe; the inconvenience of the locations and the limit on the size of purchase further discouraged affluent nonresidents from participating. The quality of the subsidized commodity can also be lower than that available on the open market. This method was used to skew the benefits of Pakistan's pre-1987 ration system toward lower-income groups. In Bangladesh better targeting has been achieved by offering a choice of wheat or a larger quantity of sorghum. Poorer households tend to opt for the latter, thus improving the nutritional impact of the program.

Food stamps

Food stamps are similar to ration schemes except that the quota is measured in terms of nominal currency units rather than in commodity weights or volumes. In practice, this means that the value of the food stamps is often eroded by price inflation. Food stamps are usually more finely targeted to needy groups than are rations.

In the face of fiscal crisis, Sri Lanka in 1979–80 replaced its four-decade-old general food subsidy and ration schemes with a food stamp program. The total transfer was lower, and the reduction in administrative machinery led to substantial savings. Stamps for food and kerosene were targeted to families with self-reported incomes of less than

300 rupees a month—roughly 50 percent of the population. The government had removed all other subsidies on food by 1980. The share of food subsidies in GNP dropped from 5.0 to 1.3 percent between the mid-1970s and 1984, and their share in total government expenditure fell from 15 to 3 percent during the same period. But the value of food stamps, which was fixed in nominal terms, quickly eroded in the 1980s, falling from 83 percent of the benefits of the general subsidy at the time of introduction to 43 percent in 1981–82.

Targeted food stamps yield a more progressive pattern of transfers than general food subsidies. Jamaica's food stamp scheme was introduced in 1984 to protect vulnerable groups from the full impact of exchange rate movements and reduced public spending. Stamps are targeted to pregnant and lactating women and to children under 5 through registration at primary health care clinics. This system encourages preventive health care and successfully screens out wealthier households, which tend to use private facilities. Coverage is high among the intended beneficiaries, and this part of the program is markedly progressive. Poor, aged, and handicapped people who are already on welfare programs, as well as households that report total income of less than 2,600 Jamaican dollars a year, are also eligible for food stamps. This component is less well targeted; there is both incomplete coverage of eligible households and leakage to nontarget ones.

Jamaica reinstated a general food subsidy in 1986. Table 6.3 shows that although coverage is wider under the general subsidy scheme, targeting through food stamps has a larger impact on the incomes of the poor, and at about half the cost. Administrative costs (which are not reflected in the table) are kept low by relying on existing government networks. The value of the stamps has eroded over time, although adjustments were made in 1988 and 1989 and more are expected in 1990. The Jamaican food stamp program is cost-effective and, with some modifications, can be further improved. Its success, however, owes much to the availability of a highly developed health and administrative apparatus and the presence of political will. Both are lacking in many countries.

Supplementary feeding programs

Supplementary feeding programs are a form of highly targeted ration or in-kind transfer scheme. Their main objective is to reduce undernutrition. Government and nongovernmental agencies dis-

Table 6.3 General and targeted subsidies, Jamaica, 1988
(percent)

<i>Item</i>	<i>General subsidy</i>	<i>Targeted subsidy (food stamps)</i>
Cost as share of government expenditure ^a	3.0	1.6
Proportion of transfer going to		
Poorest quintile	14.0	31.0
Richest quintile	26.0	8.0
Transfer as share of expenditure per recipient		
Poorest quintile	2.3	9.5
Richest quintile	0.1	1.0
Proportion of households covered		
Poorest quintile	100.0	51.0
Richest quintile	100.0	6.0

a. Does not include administrative costs.

Source: Jamaica Statistical Institute and World Bank 1988 and 1989.

tribute subsidized or free food through noncommercial channels such as nutrition and health centers for direct or home consumption or through schools to those deemed specifically vulnerable to nutritional and health risks. Children under 5, schoolchildren, mothers, and mothers-to-be are the main beneficiaries. Additional targeting on the basis of growth monitoring, health status, location, or income can be used to identify the neediest members within these groups. The scope of these operations can be expanded to cover wider sections of the population in time of crisis.

The case for food supplementation as an immediate response to severe malnutrition is undeniable. Measuring the benefits of these schemes, however, is far from easy. Anthropometric criteria are often used, but they require careful measurement and may not capture other important benefits (such as increased activity levels) realized by people who are not severely malnourished. Evaluations on this basis have tended to show that the nutritional impact on target groups is limited and is achieved at high cost. Distribution is often indiscriminate, and leakage through food sharing or substitution of home consumption has been estimated to be as high as 30 to 80 percent. Studies of large-scale untargeted school feeding programs show little evidence of significant nutritional improvement—although the effects on enrollment, attentiveness, and school performance may be significant and important in their own right.

Feeding programs are sometimes ineffective because they fail to recognize that malnutrition is not

always the result of lack of food. Parasitic diseases and other health problems are often to blame. Undernourished people with acute diarrhea, for example, are able to absorb far fewer nutrients. To be effective, therefore, nutrition programs will frequently need to be combined with health programs—including maternal care, immunization, sanitation, deworming, oral rehydration therapy, and micronutrient supplementation. Education in primary health and nutrition is also crucial where local practices are inappropriate. Education programs in Indonesia and the Dominican Republic have significantly improved nutrition at low cost and without any food transfers. Households may be unable to respond owing to lack of resources. In this case it is appropriate to combine nutrition education with cash or food transfers.

It is often cost-effective to deliver nutrition services through the health care system—provided, of course, that an extensive health system is already in place. In much of Sub-Saharan Africa and South Asia this is not the case, and alternative delivery mechanisms must be sought in the short term. But in Latin America and much of East Asia, provision through the existing social infrastructure can be achieved at relatively low cost. International NGOs such as Freedom from Hunger, OXFAM, and Save the Children (as well as a host of local NGOs) have promoted health and nutrition alongside community development.

Tight budgets and the proven ineffectiveness of indiscriminate provision make it essential to identify those in need. In schemes in Brazil and Bangladesh targeting both by geography and by self-reported income supplements the criterion of a household's containing a "vulnerable" member. Self-selection can be introduced through the choice of food available or through a requirement to attend public clinics that only provide basic services. In Chile changing milk distribution from the workplace to public clinics greatly improved the effectiveness of the program. Individual nutritional monitoring also has a role. In several programs, including the World Bank-assisted Tamil Nadu Integrated Nutrition Program in India and the Iringa Nutrition Program in Tanzania, extensive monitoring of children, carried out within the community, identified the needy and led to heightened awareness of nutritional problems.

In Tamil Nadu targeted food supplements are combined with a range of nutrition and health measures. A 53 percent reduction in severe malnutrition was achieved within the first two years. The program in Tanzania's Iringa Province emphasizes

maternal and child health, water and sanitation, household food security, child care, and nutrition education. By providing child care the scheme encouraged the participation of very poor women with heavy demands on their time. Between 1984 and 1988 it reduced severe malnutrition by 72 percent and moderate malnutrition by 32 percent. The program had fairly low costs and benefited from the existence of village organizational structures and Tanzania's well-developed rural health care infrastructure. Bangladesh's Vulnerable Group Development Program broadened its emphasis on food supplementation for poor, nutritionally vulnerable women and children to include women's training centers and shelters. It is currently exploring savings and credit schemes.

Thus, delivering basic services through existing health care systems can be highly cost-effective. This approach has been successful in removing basic deprivations in countries as diverse as Chile, China, Costa Rica, Cuba, Jamaica, Korea, and Sri Lanka.

Food policies in famines

Public policies in food trade and distribution can play an important role in a system of famine prevention. Areas facing a bad harvest often see food prices spiral as traders anticipate scarcity. Food-grain markets have often overreacted to impending shortages. For example, in the 1974 famine in Bangladesh, rice prices increased sharply even before floods caused supplies to decline. Public distribution from stocks or imports can stabilize prices and avert potentially disastrous drops in the purchasing power of the poor. In 1984 the Kenyan government responded swiftly to early signs of a shortfall by organizing commercial food imports. These arrived three months before food aid did, just as domestic stocks of maize were exhausted. Zimbabwe relied heavily on its own stocks. Botswana and Cape Verde made use of food aid; Cape Verde sold the food on the open market to finance public employment programs.

Food security need not imply distribution of food through public channels. Private trade can often help in stabilizing prices and distributing supplies. Holding large food stocks can be more costly than relying on external trade—although this depends on a country's foreign exchange position and on how quickly trade can respond in an emergency. Buffer stocks in key locations to bridge the gap before imports arrive may be the best option. In the longer term better internal food mar-

Box 6.3 Drought relief in Africa: food interventions in Botswana

Like many other African countries, Botswana had to cope with episodes of severe drought in the 1980s. Unlike some other countries (for example, Ethiopia, Mozambique, and Sudan), it has succeeded, through appropriate policies, in avoiding the worst effects of famine.

During the 1979–80 drought, relief in Botswana relied almost entirely on transporting food aid into famine-affected areas and distributing it to the destitute. Because of logistic difficulties, this approach was unsuccessful. Beginning in 1980 Botswana implemented a broad, integrated program for drought relief and recovery that combines food supply management, employment generation, and agricultural assistance.

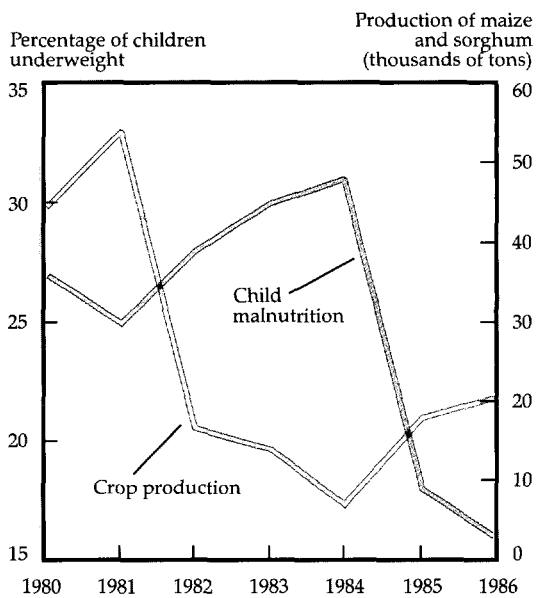
Effective food supply management lies at the core of the program. Botswana received large amounts of food aid in 1982–87, but its relief efforts did not depend on the timely arrival of these supplies. Large-scale imports of food from South Africa were combined with support for rural incomes through public works and grants. Private traders and retailers were used to distribute food. Food prices remained broadly uniform across the country during the drought period.

“Take-home” rations were distributed to all households that contained children under 10, pregnant and lactating women, and destitutes. The government set up a special trucking operation to supply maize to remote areas. Between one-third and two-thirds of the population received free rations during the drought. Intensive feeding was provided for malnourished children at health facilities, and a feeding program for primary school children was maintained throughout. Health measures, including efforts to provide a clean and dependable supply of water, were also important.

Despite large decreases in domestic food production, the program was effective: the percentage of children who were undernourished had fallen by 1986 to less

than predrought levels (see Box figure 6.3). There were no deaths from starvation.

Box figure 6.3 Child malnutrition and crop production in Botswana, 1980 to 1986



Note: The percentage of children underweight, defined here as the percentage of children age 0–59 months below 80 percent of expected weight-for-age, is used as an indicator of malnutrition. The reporting system for underweight children changed at the end of 1984. As a result, the subsequent drop in malnutrition may be slightly overaccentuated. Source: Morgan forthcoming.

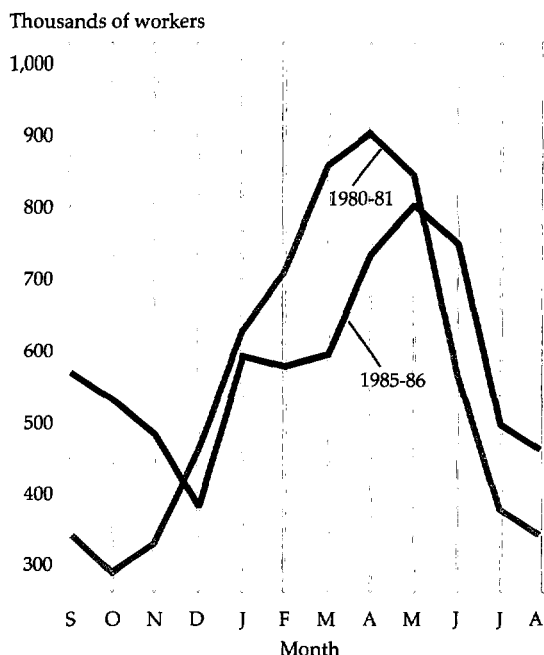
kets and complementary rural infrastructure should reduce the need for government intervention.

Direct feeding and food transfer programs are necessary during crises. Research in Africa and India shows that such measures are especially effective when used in conjunction with efforts to restore the purchasing power of the poor. Cash transfers are often more effective than food rations: cash is faster to move and easier to administer, and it does little or no harm to producers and hence to future food security. But for this approach to work food must be available elsewhere in the affected country, and trade and markets have to work reasonably well (Box 6.3).

Public employment schemes

Rural public employment schemes have two functions. The first is to maintain and create rural infrastructure—examples are road-building, irrigation, soil conservation, and afforestation programs. The second, and the more important in this context, is to reduce poverty by providing employment to those in need. In this vital task, public employment schemes are often cost-effective. Since poor people are willing to work for low wages, public employment programs can offer wages that screen out the nonpoor so that resources can be used more effectively. In two large rural schemes in South Asia—the Maharashtra

Figure 6.1 Seasonality and workers employed under the Employment Guarantee Scheme, Maharashtra, India



□ Busy season in agriculture
 Source: Subbarao forthcoming.

Employment Guarantee Scheme (EGS) in India and the Food for Work Programme in Bangladesh—the proportion of participants with incomes below the poverty line was at least 90 percent in the early 1980s. The schemes have attracted people who are often excluded from other programs—for example, women and members of scheduled castes in the case of the Maharashtra scheme. Many countries in Latin America and Sub-Saharan Africa run similar programs.

The EGS began in the early 1970s. Its objective is to provide on request employment at a stipulated wage, within fifteen days, and no more than five kilometers away from the participants' home villages. An unemployment allowance is paid when this is not possible. About three-quarters of the EGS budget is spent on wages. The current scheme provides guaranteed employment year-round. Political commitment to the program is firm, and the effect on employment appears to be significant. In 1984-85, 180 million person-days of

employment were provided, representing 3 percent of total rural employment. This has undoubtedly displaced some alternative employment, but the rural unemployment rate in Maharashtra has declined markedly in relation to that of other states. There is evidence that the proportion of poor has also declined faster than would have been expected on the basis of initial conditions and the growth of output.

Are these schemes more cost-effective than food-pricing and food-distribution policies? They appear to target the poor well, but it is important to examine the costs incurred by those who participate. If the participants join a public employment scheme, they are likely to lose some of their previous income. Although such losses are difficult to measure, a study for Bangladesh concluded that the forgone earnings of participants in the Food for Work Programme were equivalent to about one-third of their gross earnings from the program. Net income gains to the poor—and especially the poorest—appear to be a sizable proportion of the governments' wage disbursements.

Since these schemes usually produce economic assets such as roads, they may have second-round effects on the incomes of both the poor and the nonpoor. It is claimed that in Maharashtra a disproportionate share of these extra benefits has gone to the rural rich and that this has been an important factor in achieving political support for the EGS. Other second-round effects are possible. The EGS may bid up wages in general (although it has tried to avoid recruiting during peak periods of agricultural demand). Rural public employment schemes may help labor markets to work better by reducing wage differentials between the sexes and among ethnic groups.

Since the EGS is partly intended to absorb economic shocks, its employment has been highly seasonal and has varied from one year to the next—although this variability has declined as the scheme has grown and the wage rate has risen (Figure 6.1). By providing work, and hence purchasing power, when it is most needed, the EGS has not merely raised average earnings over the course of the year but has also reduced fluctuations from week to week and month to month (Box 6.4). A study of landless households in a drought-prone region showed that families in villages with access to the EGS had incomes that were much less variable than in other villages. The same study examined other income-stabilization policies such as crop insurance and found them less effective. Reducing fluctuations in income can matter as

Box 6.4 At a rural public employment site in India . . .

It is May 1986 in a rural area of Maharashtra State. Lata is one of a group of fifteen women working on a soil conservation project organized by local officials under the state government's Employment Guarantee Scheme. On this project she is shifting soil and doing light digging. Lata is in her mid-twenties, married, with two children, three and seven years old. The youngest child is nearby, playing with other children at the crèche that has been set up at the project site. This allows the eldest child to stay at the school in their village rather than look after her younger brother, as she often does when both parents are working. Lata's husband is doing agricultural work on a nearby farm. Their village is about three miles away. The family is landless, and Lata and her husband earn about 80 percent of their income from casual agricultural labor. Their total income over the past year was about 3,000 rupees, which, for a family of four, is below the rural poverty line in Maharashtra.

The region lacks irrigation, and the land is not very productive. As a result, there is little multiple cropping and the family's work is highly seasonal. Employment is particularly scarce at this time of the year. The family cannot afford to save much and would have a hard time getting by without the EGS. Things will improve in a month or so, when the monsoon crop is cultivated.

Lata seeks EGS work at this time in most years. Her husband does so less often, as he can usually find some work at a better wage rate. For Lata the EGS wage on a typical day is better than she could hope to get in the village now, even if she could find the work. On this job she has been averaging about 6 rupees a day. Lata likes having the wage paid partly in the form of food, since her husband has more say over how cash is spent. She is also pleased that EGS piece rates are the same for men and women; the men in her village usually get more for the same agricultural work.

Like all women on EGS projects, Lata is rarely allowed to do the more strenuous and better-paid jobs, such as breaking rocks for digging irrigation tanks—although she knows she can do much of that kind of work. Because of the complex EGS wage rate schedule, Lata's wages vary from day to day and site to site, even though she is working just as hard. Sometimes there are long delays before projects start and breaks of many days between projects. In the past year an illness kept her out of work for ten days. If she can stay fit, by next month she will have worked about sixty days on EGS projects over the course of the year. That accounts for about a quarter of the paid work she does. With her EGS wages the family buys shoes, clothing, and fuel as well as extra food.

much to the poor as raising average incomes. It can prevent acute distress and avoid the need for costly forms of adjustment such as selling productive assets.

Public employment schemes can have a vital role to play in preventing famine. This has long been so in India, and such programs were used extensively in Sub-Saharan Africa in the 1980s. In Botswana (Box 6.5), Cape Verde, and Kenya, strategies based in part on provision of employment have saved many thousands of lives over the past decade. Public employment projects can also soften the impact of recession, as in Latin America during the 1980s. Chapter 7 looks in more detail at how Bolivia, Chile, and Peru implemented their programs.

Perhaps the most important question in designing public employment programs is whether to provide an employment guarantee. A guarantee improves the schemes' effectiveness as a safety net (and may therefore attract more political support from groups that do not currently gain from the program). With a guarantee in place, the number of participants in the program will increase or de-

crease in response to changes in incomes from other sources; this can serve as an early warning of impending crises, such as famine. Some say that the EGS (which offers a guarantee) has helped to mobilize the rural poor as a political force. In Maharashtra the guarantee has helped to develop backward and resource-poor areas, where the demand for jobs is often highest. And it has also acted as a check on the power of local officials, who might otherwise extract side payments from workers.

The main drawback of a guarantee is its implications for the budget. The government can still keep its long-term financial commitment to the program within limits, provided that it can set the wage rate at an appropriate level. But this is not always possible. The Maharashtra scheme is now required to pay wages at the statutory minimum rates, which are higher than market rates. This requirement implies substantial budgetary outlays and potentially high social costs in lost output from alternative employment.

In Maharashtra the EGS is largely financed by taxes on the more prosperous groups in the urban

Box 6.5 Drought relief in Africa: public employment in Botswana

The food interventions under the Drought Relief Programme in Botswana that were discussed in Box 6.3 were complemented by the Labor-Based Relief Programme (LBRP), which provided the rural poor in drought-stricken areas with opportunities for earning cash income on village-improvement projects. Although the program fell short of offering guaranteed employment, it did provide employment for between 60,000 and 90,000 persons each year during the drought period. Wages were set high enough to provide a meaningful return yet low enough so as not to attract the relatively well-off. Village committees identified projects and selected participants, more than 80 percent of whom were women. It has been estimated that LBRP projects replaced almost one-third of the losses in rural incomes caused by crop failures between 1983 and 1985.

In addition to stabilizing incomes and generating purchasing power, the program protected rural assets: the poor did not have to sell cattle or other assets to survive. Furthermore, people who might have been forced to migrate were able to stay. The percentage of traditional household farms with arable land fell by less

than 17 percent, and the total number of households engaged in farming declined by less than 5 percent. The productive value of the works created was considerable. Other measures, including distribution of free seed and grants for destumping, clearing, and plowing arable land, facilitated the transition from relief to recovery.

Taken as a whole, the Drought Relief Programme has been successful in preventing human suffering and preserving the productive potential of the rural economy in the midst of a severe and protracted crisis. Although Botswana is rich in comparison with other Sub-Saharan African countries, the critical element in the program's success was the government's commitment to protecting the poor. The Drought Relief Programme has become part of the election platform for the ruling party, whose constituency is found mainly in rural areas. Components of the drought program—food distribution, for instance—have become permanent features of the benefits entitlement system. This means that the institutions and infrastructure will already be in place when drought threatens again.

sector. Because the EGS is seen as one way of reducing the migration of rural laborers to Bombay, urban groups have not opposed this method of raising funds. Other schemes, as in Bangladesh, have used foreign food aid and have paid wages in kind. In Cape Verde, as already noted, proceeds from food aid sold on the open market have been used to run the programs. Donor restrictions on the monetization of food aid may prevent governments from taking this route and may reduce cost-effectiveness. For example, rural public employment schemes financed with food aid may not have access to other funds for necessary nonlabor inputs and materials. (This was an issue in Bangladesh in the 1980s.) Still, the role of foreign aid in financing these programs, particularly in periods of stress, should be developed.

If public employment programs are to act as a form of insurance, the government—like any insurer—must be willing to pay up when things go wrong. Governments are in a better position to cover this risk than are poor households. Any scheme, however, should clearly be consistent with long-term budgetary requirements.

A further policy issue in the design of the schemes is their use of nonlabor inputs. The rule followed by the EGS, for example, is that wages must account for at least 60 percent of variable

costs. This has sometimes made it difficult to find suitable projects. For example, the materials for a sealed road will cost more than the rule allows, yet unsealed roads are soon washed away. If longer-lasting assets—many of which would help the poor—are to be created under the programs, such restrictions may have to be relaxed. It must be kept in mind, however, that creating the asset is not the main objective: public employment schemes that seek to reduce poverty directly need to be more labor-intensive than a conventional calculation of economic benefits would dictate.

Projects will be all the more successful if they create or maintain assets that are especially beneficial to the poor. Rehabilitation of agricultural land, reforestation, and erosion control all benefit the poor in environmentally degraded regions, both in the short and in the long term. Public employment schemes are commonly used in various African countries—including Ghana, Kenya, Lesotho, Malawi, Mozambique, Tanzania, and Zimbabwe—to build and maintain infrastructure that will improve the quality of life of the poor.

Caring for those left out

Some of the poor will not be adequately reached by the policies discussed so far. For example, con-

cern for the aged and infirm in developing countries is increasing. This is partly because of a shift in demographic profiles—the population is aging in large parts of the world, including Latin America, China, and South Asia—and partly because of a weakening of traditional family- and community-based social security arrangements. The aging of the population in many developing countries will continue. Not all old people are poor, but provision for the elderly poor is an increasingly important issue.

Beginning around the turn of the century, the rise of a large industrial labor force led to the evolution of social security systems in developed countries. Benefits are provided to the elderly, the disabled, surviving spouses, and children through a combination of social insurance (such as pensions) and social assistance (for example, health services). The revenue base is wide, with contributions from workers and employers; coverage is almost universal; and the scale of benefits has been significant, accounting for 15 to 25 percent of GDP in most OECD countries in the late 1970s. Reductions in the incidence of poverty in developed countries, particularly among the elderly, have been strongly linked to the growth of these systems.

Attempts to transplant such systems to developing countries have, however, met with little success. Latin American countries have had the longest experience with formal social security, and even there the programs have failed to reach many needy elderly people and other poor individuals. By and large, coverage has been limited to people employed in the formal sector in urban areas. Chile and Costa Rica are exceptions: both have well-organized urban and rural labor markets and a strong political and social commitment to social welfare systems.

The best policies for protecting the elderly poor and others who are left out will vary from country to country. In Chile and Costa Rica universal coverage is feasible, and other countries with similar characteristics would be well advised to adopt such programs. In Eastern Europe the large size of the wage employment sector suggests that formal social security will have a big role in reducing poverty among the aged and those unable to work. But these cases are not typical of the developing world. In most poor countries formal social security would fail to reduce the worst poverty, since many among the very young and aged poor, the sick, and the disabled would not qualify for benefits. Where formal schemes are already in place or are being introduced, it is important to ensure that

their financing does not become a burden on the truly poor.

A more promising approach for some countries involves transfers based on indicators of need that can be monitored through local health care and community-based systems. Preventive and basic health care could be provided to the elderly and infirm poor and could be supplemented by cash or in-kind transfers when necessary. Self-selection in attending local clinics will achieve a degree of targeting. On the whole, such arrangements are rare, but there are some examples. In rural China, for instance, the community has a moral responsibility for providing basic necessities to elderly people without relatives and to widows and orphans, and the central government helps poorer areas carry out this duty. China also has “houses of respect” for those without relatives who are not capable of living alone. And in some Islamic countries religious land and wealth taxes have been used to finance assistance to those identified as needy at the local level. In India some states administer pension schemes for the elderly and for destitute widows. In Kerala State agricultural workers over 60 with incomes below a specified level receive pensions. Verification is done by local community committees that include representatives of minority groups. In countries in which the aged and disabled poor are concentrated in the agricultural and informal sectors, a well-developed public health care system, coupled with state support for developing and fostering local and community provision, may be the best answer.

The role of transfers and safety nets

This chapter began by identifying two broad groups in need of special attention: those unable to participate in the growth process and those who may be temporarily in danger when events take an unfavorable turn. The first group needs a system of transfers that will ensure them an adequate standard of living. The second group is best served by a variety of safety nets.

The appropriate mix of policies will vary enormously from country to country. It will depend on a host of factors—economic, political, social, and cultural. There are, however, some broad guidelines.

Most food-based policies, including general subsidies, ration schemes, and food stamp schemes, make severe administrative demands on the government. Their potential is greatest in urban areas or in more developed areas that have adequate infrastructure. In all cases, targeting is essential for

cost-effectiveness. Targeting can be achieved through the choice of commodity to be subsidized, by locating distribution outlets in poor neighborhoods, or by means of indicators. In South Asia it may be best to reform the present ration systems, building on experience and practical knowledge, rather than to try an entirely new approach.

If the proportion of wage and salary earners is high and acute poverty is usually related to old age, disability, and unemployment, formal social security systems should be developed or their coverage widened. Such systems, which provide old age pensions and unemployment, disability, health, and surviving-spouse benefits, are feasible in many urban areas.

But most of the poor in the developing world live in rural areas, and it is there that the need for effective transfers and safety nets is greatest. For those who are able to work or who have family members who can work, well-designed rural public employment schemes can provide insurance against a risky agricultural environment. The key to such schemes' success in reaching the poor is that they offer unskilled work to anyone who wants it at a wage rate that only the poor find attractive. Thus, targeting is achieved through self-selection by the poor. The infrastructure built and maintained under these programs can yield high economic returns. Links to remote regions and the rehabilita-

tion of environmentally degraded lands are crucial to the reduction of poverty in Sub-Saharan Africa and in the poor rural areas of most other regions. Public employment schemes, appropriately tailored to local conditions, are a promising way to achieve these goals while providing employment opportunities and stabilizing the incomes of groups at risk.

Complementary food-based interventions will be needed for those who are unable to work. Direct food distribution and feeding programs face logistic difficulties but are often the best way to attack severe malnutrition. Special operations to supply staples to the poor in remote areas and other high-risk regions in times of insecurity will continue to be essential in many countries of Sub-Saharan Africa, Latin America, East Asia, and South Asia in the near future. Feeding programs and transfer schemes administered through existing public health systems are also the best way of helping the elderly poor, pregnant women, and children in rural areas. These programs should be integrated with other measures, including improvements in health, sanitation, and education. The development of infrastructure to provide widespread access to basic nutrition, health, and sanitation services should be a top priority for any country.