SAFEGUARDING FOOD SECURITY IN VOLATILE GLOBAL MARKETS

EDITED BY

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Chapter 24

Targeting the most vulnerable: implementing social safety nets

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The populations most vulnerable to food price shocks must be protected immediately from the resulting loss of purchasing power. Such protection not only saves lives, it can also strengthen livelihoods and may promote longer-term development. Safety nets can prevent and reduce the risk of malnutrition in human capital that has lifelong, irreversible consequences. More secure livelihoods prevent distress sales of assets, allow investments in education and health and keep households from falling into the poverty trap.

The term "safety net" is an umbrella for various types of programmes aimed at assisting vulnerable population groups. They include food distribution programmes, cash transfer schemes, various feeding programmes and employment schemes. Many countries have one or more safety net programmes which in turn have varying degrees of coverage. However, not all countries have safety net programmes in place because of budgetary costs and administrative complexity.

While the idea of a safety net in the context of high food prices may be conceptually straightforward, the formulation, design and implementation of such a programme is complex. Many possibilities exist and no specific programme design is inherently better. Its design should depend on local objectives and conditions; many safety nets combine elements of the options outlined above. Most importantly, a programme's design should be driven by the needs and circumstances of a particular country or region and its beneficiaries, rather than by the needs and priorities of donor countries and agencies.

This chapter draws upon experiences of safety net programmes in the context of rising and volatile food prices, and provides operational guidelines for their implementation. In particular, I discuss various modalities for targeting, setting appropriate benefit levels and financing safety net programmes, as well as ways to evaluate policies.

Motivation

While households that are net sellers of food may benefit from price increases, the large majority of the poor are *net buyers* of food, and are negatively affected by spikes in price.[2]

[1] Agricultural Development Economics Division, (FAO).

[2] Typically, a 1 percent increase in food prices in low-income countries leads to a 0.75 percent decrease in food spending (Regmi, 2001).

Among the worst affected are the urban poor who survive on fixed incomes and the landless and labour-constrained households living in rural areas.

In periods of high prices, there is a need to forestall further poverty increase, to protect livelihoods and to ease social pressures by helping households maintain their access to food, health and education services. Several policy instruments are available for this purpose. They can be categorized into two main groups. The first set of policies includes those that are *not targeted* and operate at the macro level. In the context of internationally rising commodity prices, one option is to increase domestic food supply by liberalizing food imports and/or restricting food exports. Another possibility is to insulate domestic food prices from fluctuations in the world market by intervening in domestic food markets (Revenga & Wodon, 2008).[3]

As discussed in Part 2 of this book, many of these policies have, however, attracted substantial criticism because of their potentially controversial macroeconomic consequences. While import liberalization is consistent with mainstream policies, restrictions on exports as well as price interventions are usually not considered "market-smart" and may, so the argument goes, distort producers' and consumers' response to rising prices, introduce inflationary pressures and hurt food commodity importers (Wodon et al., 2008). Because none of these policies exclusively target their intended beneficiaries, they may channel resources to the non-poor, who do not need such assistance.

The second group of policy instruments includes those that exclusively *target* resources to the poor and vulnerable. Safety net programmes are non-contributory transfers targeted to the poor aiming to protect them from falling into destitution while also assisting the more permanently poor in gaining self-sufficiency (Grosh et al., 2008).[4] The most important safety net policies include cash transfers, in-kind transfers (school feeding, supplementary feeding, take home rations), public works programmes, fee waivers (for healthcare, schooling or transport) and food stamps. These are discussed in Box 24.1.

In the context of rising commodity prices, however, only certain safety net programmes are considered effective. Grosh et al. (2008) provide a loose ranking. They consider targeted cash transfers to be the "best option", followed by various types of in-kind transfers. At the bottom of their list are public works programmes, which "rarely achieve coverage sufficient to be the whole response to rising food prices", and general food price subsidies, which are "regressive, distortive, costly, and hard to eliminate".[5]

Following the above ranking of safety net policies, our focus will be on cash and in-kind transfers. Both compensate households for increasing food prices and are considered to be the "best types" of intervention.

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[3] Food imports can be liberalized by reducing import tariffs and taxes and relaxing restrictions on import. Exports can be restricted by raising export taxes and introducing restrictions or even bans on export. Intervention in domestic food markets includes introducing general consumer subsidies, price controls and using food grain stocks to increase domestic supply.

[4] In addition to trade and social protection policies, other recommendations for dealing with price increases have included revoking bio fuel subsidies, boosting agricultural growth through investments in agricultural research, extension, rural infrastructure and market institutions and taking global actions to calm markets by making futures trading more costly (von Braun, 2008). Addressing these policies is beyond the scope of this chapter.

[5] As the core of the problem is declining purchasing power, and not employment *per se*, scaling up public work programmes - which might introduce potential distortions in the allocation of labour supply - appears to be less favourable (Lustig, 2009).

Box 24.1: A catalogue of safety net programmes

Cash transfers include the distribution of cash or cash vouchers. They can be unconditional or conditional, and require the beneficiary's participation in health, education or public works programmes. Cash transfers are appropriate where food markets work and where the objective of the intervention is improved ability to purchase food. Unrestricted cash transfers allow households to make decisions as to how to spend the cash, whether on food, essential non-food items or on investment needs. Such interventions can also foster local market development in food and other goods by providing greater incentives for the private sector to engage in higher-volume, more stable marketing channels. However, where food prices increasing rapidly, the value of transfers will need to be adjusted in order to maintain purchasing power. This can complicate fiscal planning.

Other approaches to improving access to food, such as food stamps, are also appropriate where local food markets work and where the root cause of hunger is the lack of access to food. Food stamps can foster local market development, primarily of food products, and have the advantage of being more politically acceptable. They may also be more difficult to divert to "undesirable" consumption and may be self-targeting (wealthier households are less interested in vouchers or food stamps than cash). In addition, food stamps have lower transaction costs than direct provision of food aid. However, they have higher transaction costs than cash transfers and may restrict the household's ability to choose the most appropriate expenditures. Moreover, the selling of food stamps in the shadow economy may undermine programme goals.

Food-supply based programmes provide food or nutritional supplements directly to individuals or households. They are most appropriate in low-functioning food markets where cash transfers or other forms of income support would be less effective. For example, providing cash or food vouchers in areas where food is not readily available could disrupt local markets and drive up prices. Such conditions typically require direct food aid or "food for work" programmes, which constitute the primary safety net implemented by the World Food Programme. Other types of direct food distribution programmes are warranted in cases where specific members of the household are particularly vulnerable to food insecurity or malnutrition. In these cases, school lunches or food supplementation may be necessary.

Direct food-based assistance is fundamentally different from cash or food stamps; it is most appropriate when an insufficient supply of food is the root cause of hunger. Such programmes are often more acceptable politically, perhaps because it is difficult to divert the aid to undesirable consumption. Importantly, food aid is often donated to the receiving country, with the quantity of food aid available often reduced when world prices rise. However, the fact that food aid is often granted free of charge may cause governments to ignore more appropriate and sustainable solutions.

Source: FAO (2008).

Targeting

The first step in designing a social safety net is to decide *who* should benefit from the programme. This entails answering two questions:

- which population group will the programme target? and
- what method of targeting is the most appropriate for this purpose?

The objective of the social safety net is to protect the livelihoods of those population groups who have been negatively affected by an adverse shock such as high food prices. There is consensus in the literature and among development practitioners that the most affected population group is the poor who are net food buyers and spend a high proportion of their income on food. There are several arguments that justify targeting the poor. First, with low levels of per capita income, the poor suffer the most when high prices negatively impact their

budget. Second, the marginal value of a transfer is higher for the poorest. Thus, targeting the poor will mean a greater impact on social indicators.

Several methods can be used and combined to target resources to the poor. Below I review targeting methods that aim to channel resources to identified population groups and hence exclude those not in need from the programme. I suggest that methodological based targeting is preferable to universal transfers, in spite of the likely targeting errors, which will also be discussed.[6]

Methods of targeting

The various targeting methods can be grouped into three categories:

- The first group includes methods that *assess the eligibility* of the individual or the household in need of assistance. Eligibility can be determined by status of wealth (measured by means and/or proxy means tests) or assessed by the community (community based targeting).
- Second, beneficiaries can be selected based on *categories* such as age (demographic targeting) or place of residence (geographical targeting).
- Finally, it is possible to design a programme in such a way that it encourages the needy to *target themselves* while discouraging (but not excluding) the participation of those are who in less need (self-targeting).

When put into practice, programmes tend to combine the various targeting methods; typically, using one type does not exclude using the others.

Assessing eligibility

Means testing investigates an individual or household's income level. The information collected is usually verified against independent sources and tested to see if it falls below a certain level. Though, by definition, means testing works best in settings where declared income is verifiable, collecting income information, especially in developing countries, is a notoriously difficult exercise as economic transactions are rarely documented. Implementing means tests, therefore, requires the highest capacity and incurs high administrative costs. Such an investment should be justified by high benefit levels and balanced by achieving the most accurate targeting.

Proxy means testing is an alternative way to establish the wealth status of an individual or a household. Various sources of information can be collected and combined into a single index to allow ranking of poverty or vulnerability. Such variables may include: the quality of the dwelling, ownership of different assets, demographic structure, occupation and the level of education of household members.[7] While collecting such information may be easier than trying to accurately assess income, proxy means testing may not be the most accurate indicator of shifting poverty levels. As characteristics of chronic poverty, these features tend to be stable and slow to change, and are thus less sensitive to rapid changes in welfare or

[6] Targeting remains a controversial and hotly debated topic. Those in favour optimistically assess targeting experiences and argue that the poor can benefit to a greater extent from scarce resources if they are channelled exclusively to them. Universal transfers, they find, are impossible owing to budget insufficiencies. At the other end of the spectrum, those who favour universal transfers highlight recent unsatisfactory targeting experiences, arguing that the bulk of resources leak to the non-poor and there is little, if any, hope that targeting performance will improve in the future. The author of this paper prefers the view that targeting can produce optimum results if well implemented.

[7] On the complexities of estimating real per capita expenditure/income and the advantages of "asset scores" in poverty analysis see Sender & Smith (1990, p. 29). The definition and measurement of "poverty" is subjective and the measure of welfare should correspond with the programme's eligibility criteria.

income. Even though means and proxy means tests demand high administrative costs, they are usually justified by more accurate targeting.

In community based targeting, members of the community are responsible for selecting the programme beneficiaries. Depending on the programme's objectives, members of the selection committee may be school officials, members of a parent-teacher association or village elders. Because it uses local information, this method is less costly than the others. But relying on rather ambiguous local-specific definitions of vulnerability can also make evaluations challenging, especially when programmes across districts are compared.

Categorical targeting methods

It is best to use geographic targeting if poverty and vulnerability are spatially concentrated and living standards across regions vary significantly. Using only geographic targeting limits eligibility to those living in designated areas and assures that both poor and non-poor benefit to the same extent. While using this method rules out stigmatization, it increases certain political risks because some areas may receive special preference. For these reasons, many safety net programmes combine geographical targeting (maps of poverty, vulnerability or food security) with other methods.

Demographic targeting uses age or gender to target beneficiaries. It rests on the assumption that people are particularly vulnerable in certain periods of their life such as in childhood and old age (even though age is not necessarily highly correlated with wealth). The advantage of targeting based on age, apart from being relatively simple to administer and cheap to implement, includes its universality and hence political popularity. The errors of excluding targeted beneficiaries are also potentially low.

Self-targeting

Self-targeting assumes that participation in the programme will be higher among the poor than the non-poor. Eligibility criteria are established in such a way that, although technically open to anyone, the poor will find greater incentives to participate. There are at least two common applications of self-targeting. The first is when public programmes set wages so low that better-off individuals/households have no incentive to participate. The second frequently cited example is when less preferred (inferior) food commodities (those normally consumed only by the poor) are subsidized (see Chapter 25). The advantages of self targeting include low costs of administration and low errors of inclusion.[8]

Errors and costs of targeting

Targeting is never completely accurate and will always lead to mistakes and leakages to non-eligible individuals and households. Two errors are often cited in regard to targeting efficiency:

- Errors of *exclusion* (Type I error or F-mistake): when poor individuals/households are identified as non-poor and therefore cannot access the programme.
- Errors of *inclusion* (Type II error or E-mistake): when non-poor individual/households are identified as poor and are admitted into the programme.[9]

[8] In the case of public works programmes, errors of exclusion can be significant if the programme cannot satisfy a pattern of demand for labour and the number of poor households willing to participate exceeds the number the programme can employ. Vulnerable households are often labour-constrained and do not have the means to participate.

[9] The two errors are usually expressed in percentages (of benefits reaching the poor) and can be calculated

There are various costs involved in targeting, all of which are incurred at different levels. The implementing agency is responsible for *administrative costs*, such as collecting information about potential beneficiaries. It is often difficult to isolate these expenses because staffing is usually shared among several programmes or within divisions of a single programme. In practice, administrative costs are usually relatively low. In a review of eight major social safety net programmes implemented in various countries Grosh et al. (2008) find that targeting costs range from 25 to 75 percent of administrative costs (and on average around 4 percent of total administrative costs).

The *private costs* of targeting are "paid" by the beneficiaries. They include the time and monetary spent on application, travel, registration, participation and compliance with programme conditions. By definition, these costs reduce the net benefit of the transfer to the recipient.[10]

Targeting also involves *political costs*. Political processes may impact budgeting decisions. Voters may support safety net programme because they value social justice and political stability and consider it their obligation to support the poor. Alternatively, they may have direct interest in a specific programme, such teachers' unions supporting school feeding programmes.

Finally, a programme's *social costs* may include stigmatization, the feeling of shame associated with being a beneficiary. This can potentially discourage the eligible and most needy from participating in safety net programmes.[11]

Safety net targeting guidelines?

Targeting method

Most targeting methods can be used and combined in cash and food transfer programmes. The same modalities apply for responses to rising food prices. For example, it is possible to target cash and food transfers to the poor by means and proxy means tests, categorizing methods (geographic or demographic characteristics), community-based targeting or self-selection as well as nutritional status or risk factors. Evidence shows, however, that the success of targeting depends less on the choice of the right targeting method than on how the targeting process *is managed*. According to a World Bank study (Wodon et al., 2008) only 20 percent of targeting performance variation can be explained by method, the remaining 80 percent is determined by targeting *management*.

When implementing targeting, the following general rules should be followed:

with the following formula: $Error\,of\,inclusion = NP^{covered}/NP$; $Error\,of\,exclusion = P^{notcovered}/P$, Where P stands for the number of poor (eligible) and NP for the number of non-poor (non-eligible). An example of low inclusion errors includes Argentina's Trabajar Workfare programme, which was able to transfer 80 percent of benefits to the poorest quintile of the population, that is four times the share they would have received through random allocation. At the same time, the programme had high exclusion errors; it covered only 7.5 percent of the unemployed. The successes of targeting vary around the world. There have been several failures where targeting is regressive and random allocation would have provide greater share of benefits to the poor (Coady et al., 2008).

10 Participants may be required to change their behaviour to comply with certain programme conditions. Such costs are referred to as incentive (or indirect) costs. A positive example is when a school feeding programme encourages households to send their children to school. A negative example is when some households may decide to work less in order to fall below the minimum income threshold that qualifies them for the programme.

11 It is often difficult to determine the actual costs of targeting. For example, registration procedures and database management are undoubtedly part of targeting costs, but they are also part of universal programmes. While it is easier to quantify and measure administrative and private costs, social and political costs are rather polemical and it is challenging to attach a monetary value to them.

Combine targeting methods instead of relying on one method. Using a number of methods usually yields better targeting. For example it is possible to target the poor (identified through means tests) in a particular area (geographical targeting) and aim benefits to the elderly and most vulnerable (demographic targeting). Each method has advantages and disadvantages (as reviewed earlier), and the best method will depend on the circumstances and the characteristics of the specific programme. Combining methods may also be preferable if a safety system has to be set up urgently as a response to a food price spike.

Define eligibility clearly and unambiguously. Targeting errors, especially inclusion errors, can be significantly reduced if the poor are distinguished from the non-poor and eligibility is classified according to clear and publicly announced criteria. For example, social protection programmes in Nepal define "elderly" as those aged 75 and over, which it is relatively high compared with most definitions used in other countries. However, this definition succeeds in narrowing down the group of people eligible candidates. A less exact targeting criterion has been used in Zambia where the "poorest 10 percent" have been targeted in recipient villages. But seeing as more than 30 percent of Zambia's population is chronically poor, this method leaves some ambiguity in targeting (Grosh et al., 2008).

Budget, costs and benefits

The programme's budget, its total cost and level of recipient benefits are all interlinked. In order to increase the effectiveness of targeting, the following recommendations apply.

Ensure the availability of sufficient funding. The greatest errors of exclusion are often caused by a lack of funding, which imposes a limit on the number of participants. Sufficient resources should be allocated for inputs (including material and information systems), monitoring and evaluation, and sufficient policy attention. Administrative budgets should be dedicated to facilitating outreach efforts.

Adjust the level of private cost. The private costs of the programme should not be too high or too low. If set too high, the poor will not be able to participate and exclusion errors will increase. If too low, the non-poor will participate and drive up inclusion errors. Because private costs are rarely quantified, qualitative judgement is often the best way to receive feedback about the programme.

Minimize social cost. Reduce stigmatization by launching publicity campaigns to encourage participation in universal programmes (for pregnant women or children under five) and to discourage the non-poor from applying. The beneficiary roster can either be kept confidential or made public, depending on the type of programme. It is advisable to keep this information private if those who are excluded from the programme are not in a position to identify participants.

Adjust the level of benefit. A commonly used method to increase targeting efficiency is to adjust the level of transfer to the size or structure of the recipient household instead of delivering a uniform transfer (see below).

Programme design, implementation and management

Assign sensible roles to participating institutions. Often, several institutions take part in the implementation of safety net programmes. Their collaboration should be harmonized.

Allocate staff to carry out multiple functions. Staff should carry out multiple functions and/or work on more than one programme at the same time. This will reduce administrative costs. Keep in mind, however, that lower investment in the administration of targeting may result in less administrative effort devoted to this task, and may lead to higher leakage of resources and less narrow targeting. Administrative costs should not be cut significantly at the start-up phase. Costs are usually higher at the initiation of a project, and include initial investments in equipment, staffing, etc.

Make the programme dynamic. Allow the entry of new beneficiaries as well as the exit of participants who are no longer eligible. Rising food prices affect different population groups differently and some of the poor become poorer while some of the non-poor fall into poverty. Open eligibility

procedures allow applications to be made at any time. Keep the system flexible and make expansion administratively simple.

Allow sufficient time for development. Systems develop over time. A well-designed targeting system that is constantly improving can become the basis of a coherent social policy. It may only take several months to set up a reasonably well-functioning targeting system Bear in mind that too rapid set-up can result in targeting can errors and may undermine the prospects of a sound long-run social policy. If the proper length of time is not available, it may be justifiable to use other methods in the short-run and the prospects of designing a more accurate household targeting system will increase.

The case of Armenia shows how social assistance programmes can be efficiently reformed to streamline targeting. In 1991, the country inherited a generous cash benefit system along with heavily subsidized goods and services. The social assistance system consisted of several small and uncoordinated cash programmes that the government decided to consolidate and implement through a tightly run administration. This resulted in several changes. First, the programme targeted low-income households instead of relying on the more ambiguous categories of "poor" and "non-poor"; second, the programme used proxy-means tests to determine eligibility (instead of means tests), thus taking into account a large share of the informal economy; third, the government scaled down the subsidy on electricity. The reforms yielded great results, as the share of benefits targeting the poorest 20 percent increased from 16 percent to 32 percent in one year (Grosh et al., 2008).

Setting the level of benefit

One of the basic problems in designing a safety net programme is determining how much people should be paid. While there is no clear-cut answer, a general recommendation is to set the benefit level so that it maximizes outcomes to the beneficiaries while fitting within the programme's administrative, budgetary and political constraints. A benefit set too high will cause fiscal burden and may generate dependency, reduce work incentives and crowd out private transfers. If, on the other hand, the benefit is too low, the programme will lack impact and fail to achieve its objectives, while incurring high administrative costs relative to the size of the transfer.

The coverage of safety net programmes needs to be expanded in order to offset the negative impacts of increasing food prices, which include declining income, increased expenditure on and reduced consumption of food. The purpose is to raise beneficiaries back to the same level of wealth (and consumption) at which they were before the prices hike.

If the country has ongoing programmes and functioning operating systems in place, there are at least three strategies for expansion:

- First, it is possible to keep the same beneficiaries and increase the level of benefits transferred to them. This is perhaps the easiest and least demanding solution.
- Second, the size of the programme's coverage can be extended by admitting more beneficiaries. Increasing the threshold for a means or proxy means test is one such example.
- Third, the targeted area can be expanded to other regions of the country in order to include more beneficiaries. This is slightly more complicated, but can yield impressive results.

Many countries have small and under-funded safety net systems. Often, coverage is insufficient not only for those who recently fell into poverty, but also for those who needed assistance even before the increase in food prices. These people will fall into deeper

poverty and therefore more significant investment is needed to cover demand for additional resources.

The level of benefit can be estimated in various ways.[12]

Estimate benefit based on income. As argued earlier, safety net programmes designed in response to increasing food prices should target the poor, who are best identified through their income level. Safety net programmes often target the poorest 5-20 percent of the population, and although the size of transfer may differ, they usually cover on average 20 percent of household income.[13]

Estimate benefit based on adequate food basket. If the programme's aim is to compensate the poor for their declining food consumption, the benefit can be estimated according to the level of an "adequate food basket", also called the food poverty line.[14] An increase in food prices will push the food poverty line upwards, mirroring the adequate level of compensation needed to offset the negative impact of the price increase. Each household below the original food poverty line, as well as those new households who have just fallen below the new line, should be compensated to the extent of the additional cost of the food basket. For example, the Jamaican Food Stamp Programme authorizes the purchase of rice, cornmeal, skim milk and wheat flour, all of which constitute a basic local food basket (Grosh et al., 2008).

Box 24.2: Estimating safety net benefits

Suppose that the poverty line represents 80 percent of per capita Gross Domestic Product (GDP). 15 percent of the population is poor (at income levels below the poverty line) and the average food consumption of the poor is 25 percent below the poverty line. In this case the overall cost of the programme will be 3 percent of the GDP:

$$80\% \times 15\% \times 25\% = 3\%$$

If, as a consequence of increasing food prices, the food poverty line rises by ten percentage points (to 90 percent of per capita GDP), an additional 5 percent of the population will be pushed below the poverty line ($15\% \pm 5\% = 20\%$). The poor's average food consumption would still fall at 25 percent below the poverty line, and the overall cost of the programme would be 4.5 percent of the GDP:

$$90\% \times 20\% \times 25\% = 4.5\%$$

The difference - 1.5 percent of the GDP - is the cost of compensating the poor for the increase in food prices. Clearly, this calculation excludes targeting errors (leakage) as well as other (mainly administrative) costs of targeting and implementation.

12 There are several ways to determine benefit value. The most straightforward is to report the value in local currency, or, if the purpose of the exercise is to compare countries, purchasing power parity is a useful common denominator. Alternatively, different ratios can be calculated that compare the benefit of the programme with other indicators. For example, it is possible to report the benefit level as a share of wage, a share of the poverty line or a share of the total consumption of beneficiary households.

13 Another option is to set the benefit level as a fraction of the income gap, i.e. the ratio between the income or consumption of an average household and the eligibility threshold (the poverty line). This method is used in guaranteed minimum income schemes. In the case of public works programmes the benefit level (wage rate) should be set somewhat below the legal minimum wage, i.e. the wage level for unskilled workers.

14 The local food basket contains the minimum quantity of commodities that an average individual (or household) should consume in order to lead a healthy life. The composition of the basket (mix and proportion of each of the commodities it contains) can be derived from consumption surveys which are also used in food balance sheets to estimate a country's food requirements. By attaching monetary values to each of the commodities, it is possible to estimate the cost increase of the food basket. In cases where data are available it may be possible to tailor the food basket to the consumption of the poor who might consume a different mix of commodities, but in developing countries such data may not be available.

Estimate benefit based on opportunity cost. A safety net programme may have secondary objectives. For example, it may provide incentives for households to accumulate human capital by boosting school enrolment or encouraging the usage of health services. In this case, the benefits should compensate households for the opportunity cost of the time children spend in school (and not working), or the time household members spend attending health centres. In Honduras, for example, opportunity costs were included when the level of education grant was determined. In addition to the various direct costs (fees, matriculation, books, uniforms, lunch, transportation, etc.) the income contribution of children per household was estimated (survey data showed that children provide about 3 percent of labour hours and 2 percent of average household income), converted to USD, and added to the direct costs of schooling (Grosh et al., 2008).

Use variable benefit formula. Benefits can be differentiated according to characteristics such as size and composition of the household, age and gender of members (taking into consideration the young and the elderly) or the household's specific needs or behaviours. The level of benefits can also vary in time and by region: it makes sense to increase benefits during the hunger season or to adjust their level according to the cost of living in certain areas. For example, Brazil's *Bolsa Familia Programme* provides two types of benefits: a base benefit for all families in extreme poverty and a variable benefit depending on family composition and income. The variable benefit is set according to the number of children in the family and/or whether the mother is lactating or pregnant (Grosh et al., 2008).[15]

Adjust benefit levels to inflation. The increase in food prices tends to be higher than total inflation, which implies that there is a difference between the share of benefits as a proportion of household income and the share of benefits as a proportion of expenditure on food. If beneficiaries are to be able to purchase the same amount of food that they previously did, then the programme's benefit level should be raised above that of inflation.

The overall cost of the programme, which aims to compensate the poor for the increase in food prices, will depend on its benefit level and coverage. When making decisions about each of these factors, it will be necessary to take budgetary constraints into account, as most safety net programmes have limited funding.

Financing safety net programmes

There are basically four funding sources for safety net programmes.[16] It is possible to rearrange expenditures, increase taxes, or finance programmes through either international grants or borrowing. Each of these options has its advantages and disadvantages, and the most suitable option depends on the situation of the particular country.

Expenditures are reallocated when governments replace general subsidies with targeted safety net programmes and/or when funds are taken away from other programmes to fund new projects. While reallocation does not require new resources, the disadvantages include limited funding and political resistance to reducing funding in other activities. There are several examples where expenditure has been reallocated successfully. Savings from the elimination of general food subsidies were used to fund a Food Stamp Programme in Jamaica in the mid-1980s, and petroleum subsidies were converted into spending on health, education and cash transfers in Indonesia in 2005 (Grosh et al., 2008). If social safety nets are funded from

[15] Several options were considered when the programme's benefit level was being determined. The first was to deliver higher benefits to families with older children in order to reflect the opportunity cost of their staying in school. Others argued that benefits should be differentiated by gender. It was also suggested that regional disparities should determine the size of the transfer.

[16] The majority of developing countries spend around 1-2 percent of their GDP on safety nets, although these data should be treated with caution. Not all countries are involved in the calculations, figures across countries are not always comparable (it is not always clear what should be included as a "safety net programme"), and the interpretation of figures also varies across countries.

additional taxes, attention should be paid to political costs. Many believe that government revenues are the best way to finance safety nets.[17] A general rule for this type of funding is that the amount taken by taxes should not be higher than what is given back to beneficiaries.

Grant financing is a popular way to fund safety net programmes, although it has opportunity costs.[18] Financing safety nets through grants poses several problems. First of all, funding is often guaranteed for a limited amount of time, often only one or two years. Aid flows tend to be committed to relatively short periods and owing to inflexibility they can only cover a proportion of programme costs, but not the whole. A further constraint is that it may be difficult to realize economies of scale if several donors fund similar projects, but do so separately, following their own conditions. Finally, borrowing and debt financing can only be justified if the programme benefits future generations, builds capacity to generate income, raises productivity and future tax revenues - all of which will enable the country to repay the debt in the future. Examples of this include education or infrastructure. It is usually justified to borrow in times of a crisis when expenditures increase temporarily.

The following recommendations can be made on financing safety nets:

Finance safety nets in a countercyclical manner. Funding for safety nets should increase during economic downturns and in times of need, both because the number of poor rises and because they require higher benefits. There are, however, several problems with countercyclical funding: during crises government revenues fall and they are forced to reduce expenditures. One option is to set up a special fund and use these contributions during recessions. It is possible to set up grain reserves and release them on the market when food insecurity increases. Spending on safety nets usually increases during economic downturn, even though few safety net programmes are fully funded in good times. Examples of which include Mexico, India and the Philippines, which keep reserve funds for relief programmes, or India, where a specific tax is used to fund countercyclical public works (Grosh et al., 2008).

Ensure that funding comes from the national level. There are several reasons that safety nets should be funded at the national level. It will ensure that people of similar circumstances are treated equally in terms of benefit levels, criteria of eligibility and delivery of service. National financing will help prevent similar population groups being treated differently in different regions of the country.[19]

Create a mix of incentives between the national and the local government. While safety net programmes are often financed nationally, their implementation is carried out by local institutions that are better acquainted with local customs and have superior knowledge about potential beneficiaries. The local governments' (implementers') actions should correspond with the goals of the policy.

Local governments should be asked to contribute to funding. Requesting local implementers to contribute to financing the programme may help achieve better results in implementation.

Allocate funds to regions in a fair and predictable way. The level of funding from the national to the regional level can be determined based on indices of poverty, size of population or tax capacity in the area.

Timing

The timing of social safety net programmes is another important aspect consisting of several steps from initial design and phase-out. There are at least three phases of a programme where timing is crucial:

[17] Such tax instruments include income taxes, VAT, sales taxes and payroll taxes.

[18] According to theory, the marginal benefits of additional spending on safety nets should be higher than the marginal costs (i.e. the alternative uses of funds). However, in practice it is difficult to quantify in monetary terms the cost and the benefits of programmes, because they have diverse impacts. Funds can be spent in a host of sectors and in diverse programmes, making it challenging to quantify marginal benefits from the different forms of spending.

[19] Because poorer areas have less revenue but higher incidence of poverty, national financing should also ensure that resources are channelled from the richer to poorer regions.

- first, *when* the programme should start;
- second, *how fast* the system should be developed, and what are the consequences of it being designed too quickly; and,
- third, *how long* should the programme last and when should it be scaled down or sustained over time.

In this section I discuss the timing, frequency and duration of cash and food interventions and their various implications for programme design.

In rural areas, harvest time is a key temporal reference point with several implications for social assistance programme implementation. While the period preceding the harvest is often the "hungry season," the next few months see the main concentration of household income. Seasonality is thus related to the objectives of the safety net programme, and transfers are likely to differ at various times of the year. Cash grants distributed before the harvest are likely to be spent on food and meeting basic needs. The value (purchasing power) of cash will depend on food prices, which tend to be higher before the harvest. The same transfers after the harvest are more likely to be spent on productive investment and restocking and can have long-lasting impact on livelihoods by generating a shift in contractual arrangements between households.

Agricultural production cycles and harvest time also impacts food distribution programmes. Food transfers should provide more resources during the acute phase of the crisis, which normally coincides with the hungry months.[20] The conventional belief is that in-kind transfers are usually slower than cash transfers because of higher transaction costs (such as transporting physical quantities of food). It should be noted that this is not necessarily the case in every situation. Procedures and systems for delivering cash transfers are often not established, bottlenecks in administrative and financial systems may cause frequent delays in payments. Cash transfers may actually take longer to implement than food transfers.[21]

The timing and frequency at which a programme administers payments may also encourage behavioural changes in its beneficiaries. In school assistance programmes, for instance, it has been found that a lump-sum payment upon graduation positively impacts school attendance, while reducing monthly payments and adding an end-of-year bonus did not. Timing and duration of social assistance programmes can further determine transaction costs and influence the consumption-smoothing benefits to the poor. Nevertheless, the timing a programme chooses is also a function of the interplay of interests between local groups and international agencies.

Timing also makes a difference for the design of effective exit strategies. When the safety net programme is over, several options can be followed:

- The first is to transform the programme into a permanent safety net. Programmes that have achieved significant results and generated improvements should be used as a basis for building a sustainable long-term social policy. Maintaining such programmes helps prepare for and manage future covariate shocks.
- The second possibility is to scale back social protection interventions once they have achieved their short-term goals. This is the case if policies were less efficient or if benefits are not sustainable over the long-run. Programmes will be easier to scale down if their temporary nature has been announced at the outset.

[20] In the case of school feeding programmes, timing is essential to maximize impact on educational objectives.

[21] For example, banks may take a long time to prepare disbursements and are not always flexible in the timing of their distribution.

- The third option is that programmes scale down "automatically" if households voluntarily withdraw as their needs decline, regular recertification renders them ineligible, or if payments are set in nominal terms and inflation erodes their real value over time.[22]

Finally, timing matters in evaluations and adjustments of the programme. For example, in order to track progress and accurately assess the programme's impact, it is useful to conduct a baseline sample survey of a control group in advance. There is also a time lag between gathering information on the programme's performance and adjusting it to these requirements. Reducing or suspending benefits owing to non-compliance of recipients usually takes several months. The frequency of verifying compliance depends on capacity constraints and on the programme's specific conditions.

Frequency of payments is another important dimension that ultimately depends on the objectives of the individual safety net programme. Quick and regular deliveries of smaller amounts of cash (or food equivalent) will be required if the programme's objective is to transfer basic needs. On the other hand, if the aim is to recover livelihoods over a longer span of time, larger sums of cash are needed mostly in the programme's recovery phase. In practice, cash transfer programmes have used different schemes for payments ranging from monthly and bimonthly to quarterly disbursements. The frequency of payments also has implications for the programme's disincentive effects. In the case of one-time payments or temporary (one year) transfers, disincentive effects such as changes in the labour supply are unlikely to occur, while in the longer run such effects may happen as households have time to adjust.

Based on the above, several recommendations can be made on how to manage the timing of social safety net programmes.

Allow sufficient time for resources to be delivered. Markets may be too disrupted and infrastructure may be damaged for fast delivery of cash. Also, the rapid transfer of resources may imply that responsibility and decision-making power is deployed to the local level and field managers may be granted too much authority to distribute grants without appropriate procedures.

Work towards the development of a sound social protection system. Short-term interventions provide a great opportunity to design, test and implement systems that can become the basis of a long-run social protection system. Such interventions can effectively deter the introduction of general subsidies. In certain cases where temporary programmes do not contribute to permanent policies, discontinuing and closing them down may in fact help such policies emerge. In general, policies with short-run actions should aim towards the development of a sound long-term system.

Distinguish between the objectives of small and large transfers. Programmes that deal with smaller transfer amounts deliver basic needs and should be implemented quickly and regularly. By contrast, if the programme's objective is livelihood recovery, then larger transfer amounts will be required and an extended time-frame for planning and establishing well-functioning targeting systems is necessary.

Evaluation

Evaluating programmes is important for several reasons. Evaluations provide feedback on implementation, highlight changes in outcomes generated by the programme and indicate whether the programme achieved its intended results. Evaluations aim to find ways to improve overall effectiveness, identify successful aspects, indicate areas where changes are needed, and recommend strategies for scaling up, modifying or even stopping

22 The potential danger with the latter is that administrative costs can become too high proportionately.

the programme. Evaluations are an essential part of a learning process about safety net programmes.[23]

There are various types of evaluation, each of which focuses on different aspects of the programme. The most common are process evaluations, which assess targeting accuracy and impact evaluation. Comprehensive evaluations include all of these types and may have additional components.

- *Process evaluation* investigates the programme's implementation process and it is often used throughout the life of the programme. It indicates whether the programme has been implemented as planned and provides feedback to implementing agencies. While a process evaluation can substitute for an inadequate or poorly performing monitoring system, it does not explain why a particular problem emerged or how it can be solved.
- *Impact evaluation* analyses whether the programme has achieved its goals and intended outcomes, and whether these changes can indeed be attributed to the programme or are the result of some other factors. Impact evaluations use control groups that are similar in all aspects to the treatment group, except that they do no receive benefits. Depending on the programme's objectives, an impact evaluation can assess changes in income, poverty status, food security, consumption, health, school attendance, education, and so forth.
- *Assessing targeting accuracy* looks at what proportion of the beneficiaries is poor and whether targeting errors have been sufficiently low. Target accuracy assessment is an alternative to impact evaluation, although it produces less precise results. For example, it cannot explain the distribution of benefits and pays no attention to the impact of transfers on several other dimensions of welfare.

Guidelines on conducting evaluations

Setting up an evaluation system is a complex exercise involving several steps. The following recommendations should be followed.

Design the system according to the programme's objectives. The structure of each programme includes three dimensions: it processes inputs in order to generate outputs that will have outcomes to beneficiaries. Evaluations can only reveal a programme's effectiveness if its objectives and strategy have been clearly articulated.

Develop a comprehensive plan. The evaluation plan should identify what kind of resources the process will require, the type of information that will be collected, what indicators will be developed for the programme (see below), and how the data will be analysed. The plan should be followed throughout the evaluation exercise.

Collect relevant data from various sources. Information for the evaluation can be collected from various sources using different techniques. They include administrative data (staff, administrative costs, benefits), beneficiary surveys (to investigate the quality of service), surveys of households (whether the programme is targeting the poor), surveys of impact evaluation (comparing programme beneficiaries with a control group who did not receive benefit), and qualitative techniques (key informant interviews and focus group discussions).

Pilot test and refine the system continuously. As the evaluation is implemented, new facts, data and information may arise that should be incorporated into the evaluation exercise. The system should be flexible enough to process such information.

Keep the evaluation unit independent. In order to the be as objective as possible, the unit should be granted sufficient authority and have direct access to higher level authorities such as heads of agencies or ministers.

[23] Monitoring is different from, but complements, evaluations. While monitoring is a continuous process, an integral part of a programme which provides regular information and feedback, evaluation is a one-off exercise, an external assessment of effectiveness, which is normally undertaken at the end of the programme. In this chapter, I only deal with evaluations in detail, although the indicators discussed later can be used for monitoring as well.

Table 24.1: Indicators used in monitoring and evaluation

	Input		Output		Outcome
		Efficiency of service delivery		Effectiveness	
Definition	What resources are used to deliver transfers?	How efficiently are inputs used to produce outputs?	Transfers / services delivered and beneficiaries served	How does outcome change per unit of output?	Are the objectives of the programme reached?
Indicators	Budget allocation for transfers; Number of staff; Staff time; Other administrative resources	Amount of benefits processed by staff member; Cost of processing payment per beneficiary; Average cost of programme per beneficiary.	Number of beneficiaries served (total or percentage of target); Amount of transfers paid; Amount of services delivered;	Average benefit achieved per beneficiary.	Improvement in consumption; Decrease in poverty; Increase in wages; Improvement in human capital
Examples		Number of beneficiaries reached per US$1000 of administrative cost.	Average value of cash transferred per household; Total cash transferred; Number of schools benefiting from school feeding; Number of meals distributed; Number of participating health centres; Number of lactating women / children who received a monthly take home ration.	Average increase in consumption (outcome) per amount of resource delivered by the programme (output)	Percentage of families who rose above poverty line; Increase in school enrolment; Decrease in prevalence of malnutrition; Change in asset levels of chronically poor;
Expenditure	Cost effectiveness				Outcome
	Cost benefit analysis				

Facilitate communication and coordination in complex programmes. Programmes may have different implementers, or several levels may be involved in implementation. Their actions should be harmonized.

Report information in an understandable and possibly disaggregated format. Disaggregating indicators according to beneficiary subgroups or characteristics of the service increases accuracy. Always report the targets and objectives of the programme.

Indicators

Various indicators can be used to monitor and evaluate programmes. According to the programme's objectives, there are input, output, and outcome indicators, each of which attends to different aspects of the programme:

- *input* indicators include resources used to deliver transfers;
- *output* indicators focus on cash and in-kind transfers as well as on services delivered to beneficiaries; and,
- *outcome* indicators indicate the extent to which the programme reaches its objectives of improving consumption, raising incomes and wages and facilitating human capital development among participants.

Indicators can describe various subsets of the programme, but they do not in themselves provide information about its efficiency or effectiveness. For this purpose performance or efficiency indicators can be calculated which "stand between" the input, output and outcome indicators. Between the input and output indicators the "efficiency of service delivery" indicator describes how effectively inputs have been used to produce outputs. Between the output and outcome indicators "effectiveness indicators" describe the programme's result, i.e. the relationship between output and outcomes.

Other indicators do not focus on a subset of the programme, like the previous ones, but aim to describe the programme's *overall* effectiveness. They include *cost-effectiveness* analysis

and *cost-benefit analysis*. Both of these indicators examine the relationship between the total expenditure and the final outcome of the programme and investigate whether the costs of the programme justify the benefits. Cost-benefit analysis is used when the output of the programme can be expressed in monetary terms, while in cost-effectiveness analysis benefits cannot. Table 24.1 summarizes the various indicators and provides some practical examples for each.

Indicators can be expressed in the form of *levels* (the number of beneficiaries or the cost of the programme), *ratios* (the increase in school enrolment per unit cost) or *percentages* (the proportion of beneficiaries who are satisfied with the programme). Indicators should be valid (focus on the aspect of interest), reliable (different people using the same indicator should arrive at the same conclusion), cost effective (gathering information should be worth the investment), sensitive (pick up changes rapidly) and timely (data should be processed and collected quickly).

Finally, some practical guidance and advice on the usage of indicators:

Calculate most of the above indicators for the majority of programme. Using several indices as opposed to relying on just one will give a wider picture about the function (and impact) of the entire programme.

Track indicators over time. To evaluate progress and the impact of the programme it is useful to monitor indicators over time. Make sure that different agencies track the same indicators and define them the same way.

Report indicators according to their frequency. The frequency of reporting indicators will depend on the type of data (weekly or monthly indicators for school enrolment, or data collected over a longer period in surveys) and on the cost of collecting data.

Set targets for the relevant indicators. Having targets helps evaluate the overall effectiveness of the programme. Targets can be set based on current performance, assumptions, or experience with similar programmes implemented in other countries or contexts.

Conclusion

Those who are most vulnerable to food price shocks need to be protected immediately from their resulting loss of purchasing power. Such protection not only saves lives, it can also strengthen livelihoods and may promote longer-term development. Safety nets can prevent and reduce the risk of malnutrition and human capital that has lifelong, irreversible consequences. More secure livelihoods prevent distress sales of assets, allow investments in education and health, and keep households from falling into the poverty trap.

Among several safety net instruments, the focus of this chapter has been on cash and in-kind transfers. It is seen that the level of benefit should be set where the outcomes for beneficiaries are maximized while the programme's administrative, budgetary and political constraints are observed. The purpose is to return beneficiaries to the level of wealth and consumption at which they were before the prices increased. The ration size can be estimated through various methods. It can be based on household income or determined by the level of an "adequate food basket". The opportunity cost of the programme is another important benchmark to decide whether the safety net programme will be worth the investment.

Poverty targeting through means or proxy means tests can be effectively combined with categorical methods including geographical and demographic targeting. The appropriate method will depend on the objectives and on the circumstances of the programme. Costs and errors can be reduced by allocating staff to carry out multiple functions.

There are basically four sources from which safety nets can be financed. It is possible to rearrange expenditures, increase taxes, or finance the safety net through either international

grants or borrowing. Each of these options has its advantages and disadvantages, but the situation of each country will determine the most appropriate option. Safety nets should be financed in a countercyclical manner with funding originating from the national level. The allocation of funds to regions should be made in a fair and predictable way and local authorities' actions should follow the policy guidelines.

Timing, frequency and duration are also important dimensions of safety net policies with implications for programme design. In rural areas harvest time is an important point of reference: "lean" periods precede the harvest and income for the majority of households is concentrated around that time. Seasonality is thus related to the objectives of the safety net programme and the use of transfers is likely to differ at different times of the year. Cash grants distributed before the harvest are likely to be spent on food and on meeting basic needs. The value (purchasing power) of cash will depend on the prices of food, which tend to be higher before the harvest. The same transfers after the harvest are more likely to be spent on productive investment and restocking and can have long-lasting impact on livelihoods.

Evaluations provide feedback on implementation, highlight changes in outcomes generated by the programme and indicate whether the programme has achieved its intended results. The most important indicators of evaluation are input, output and outcome indicators, in addition to two other indicators measuring the efficiency of service delivery and effectiveness of the programme. The more indicators are calculated, the clearer the picture about the effectiveness of various dimensions of the programme.

Implementing social safety net programmes is a complex exercise that creates great challenges for policy-makers. This chapter has provided general guidelines for their implementation, keeping in mind that safety net programmes are context-specific and only general recommendations can be made. Cash and food transfers have been implemented for several decades and substantial experience has been accumulated. Periods of rising food prices, however, locate these programmes within a different perspective and pose additional challenges in targeting, rationing, timing, financing and evaluation of programmes.

Each aspect of cash and food transfer programmes discussed in this chapter has a vast literature, compiled over decades from thousands of programmes implemented in various countries and contexts. When designing social safety net programmes, policy-makers should reflect rationally and rely on individual experience and their own society's circumstances. Hopefully, this chapter will be of some help in this process.

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