

# Targeting for Nutrition Improvement

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RESOURCES FOR ADVANCING NUTRITIONAL WELL-BEING

Nutrition Planning, Assessment and Evaluation Service  
Food and Nutrition Division  
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## Experiences in Targeting Nutrition Programmes

### Targeted relief food aid



#### ETHIOPIA

Ethiopia has a long history of food aid relief activities. The methods used to target these relief interventions have changed substantially over time. Targeting guidelines were most recently revised in 1993, outlining key principles for the implementation of relief activities. The principles, in part, give priority for food distribution to the areas where lives and livelihoods are most threatened. In such areas, relief food aid is targeted to the most needy, with no free distribution of food to the able-bodied population. The latter only have access to relief food through their participation in public works, which are an integral part of the country's social safety net.

Eligible recipients of free relief food must meet the following criteria. They must be: a) without relatives who are able and bound by custom to provide support and b) over 60 years of age, infirm, blind, crippled or mentally incapacitated, c) lactating or pregnant women, d) young children without any family support, e) required to attend young children and incapacitated adults constantly, or f) women who have given birth recently (who by custom are unable to appear in public). Beneficiaries are screened by a local council consisting of seniors and locally elected officials.

Recipients of employment-based relief food must be adults over 14 years of age, who are fit to work and who are members of the community in which the public

works activities are being implemented. The policy states that all able-bodied members of a household may be permitted to work, but it recognizes the likely need to ration work in times of particular stress. Workdays may be rationed within households depending on household size, although no explicit policy is expressed in this regard.

Household-level targeting relies mainly on administrative and community-based targeting methods. Actual targeting criteria are similar in most locations, but their interpretation is complex. Households are generally judged, not according to any single indicator, but according to a subjective perception of need, which implicitly takes several factors into account. Although apparently open to anyone, food-for-work opportunities are frequently rationed among households according to criteria established by the communities themselves. In one community, for example, those with no assets to sell and no land were given priority. Within communities, there is widespread rejection of the idea of using low wages as a way of self-targeting food-for-work to only the most needy. In many areas, there is a tendency to spread relief food supplies over a large number of communities and households, without much regard for needs assessment. Biases in the allocation of work based on favouritism are also a common problem and reduce targeting effectiveness.

In Ethiopia, regional targeting is an important concern. One analysis suggests that food availability varies more across local administrative units, *weredas*, than within those *weredas*, implying that targeting at the *wereda* level would be more effective than household-level targeting. In theory, it should be possible to allocate relief food supplies in proportion to local estimates of need. In practice, decision-making is more difficult, since supplies are usually inadequate to meet estimated local needs fully. Furthermore, the severity of conditions across locations is not fully reflected in estimates of the number of households in need. Relief food allocations from central and regional authorities to the *wereda* level are often criticized for being too heavily based on estimates of local food production, without adequately considering broader and, admittedly, more complex socio-economic factors that determine household food access.

The use of geographic, rather than household-level, targeting methods would seem to have greater potential. At present, food aid is received by 42 percent of *weredas*, mainly those concentrated in two chronically food-deficit regions. However, there is some evidence that food aid is not being well targeted on a regional basis. Among the *weredas* receiving free food aid, 48 percent of house-

holds are considered to have inadequate calorie availability, roughly the same proportion as exists among households in *were* that do not receive free food aid. In addition, the proportion of food-deficit households among the *were* that receive food aid through food-for-work programmes is about the same as it is for *were* that do not. This system of *were*-level targeting resulted in slightly more than 45 percent coverage of all food-deficit households in the county. By contrast, if the relief food aid were targeted only to the *were* that are most in need, even a random allocation at the household level would imply that about 50 percent of all participating households would be food-deficit households. Within each *were*, the food-deficit conditions among households tend to be very similar, and this practically eliminates the need for household-level targeting, suggesting that geographic targeting would be more appropriate.



## KENYA

In response to serious problems associated with the purchase and distribution of maize as emergency relief, a new community-based system has been designed and is currently being implemented by the Government of Kenya. The problems with the previous system included: a) a lack of targeting, resulting in beneficiary households usually receiving very small monthly rations (as little as 2 kg); b) insufficient allocation of funds for transport, resulting in a significant portion of maize supplies being used to finance transport costs; and c) considerable misappropriation of emergency maize supplies. In addition, a parallel system operated by a number of international non-governmental organizations (NGOs) distributed international food aid during the 1997 drought and the 1998 floods. It was recognized that this system was not sustainable. Late in 1999, a new and unified system was designed with the participation of the Government of Kenya, donors, NGOs and UN agencies.

The main objectives of the new system, which pools government and non-government emergency food aid, are to maximize the humanitarian impact of the relief food aid and lower the administrative costs of the food aid programme. Specifically, the new system aims at improving geographic targeting of the most affected districts and divisions, and relieving the administrative burden on provincial and district governments by appointing a lead agency to coordinate and implement relief operations for each district. The system puts a strong emphasis on community participation and women's involvement in targeting the most vulnerable households in the community and in managing the distribution of emergency food aid. A District Steering Group (DSG), which is approved by

the Office of the President and the World Food Programme (WFP), allocates the district's emergency food supplies to different divisions. Relief committees allocate food at the community level.

The system was first implemented in the district of Turkana in December 1999 in response to a severe food security crisis caused by drought, which has since worsened. World Vision was appointed as the lead agency. In June 2000, it became necessary to target 75 percent of the population in the district. The districts of Marsabit, Moyale and Mandera were targeted under the new system in March 2000. Sub-DSGs, made up of relief committee chairpersons, chiefs, counsellors and important elders, allocate food from the division at the community level in Mandera.

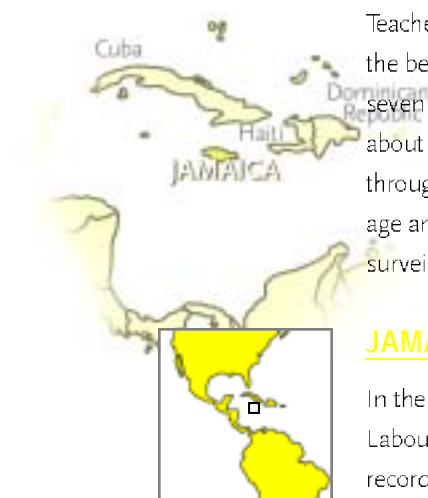
To date, experience of the new system has shown the importance of DSG's role as a coordinating body and the need to allocate emergency food aid on the basis of solid information about the food insecurity situation in different parts of the district. The success of the system depends on the sensitization of communities and local governments, and on the capacity of the lead agency to take into account local tribal and cultural factors. There have been instances in which local leaders or politicians have attempted to interfere with food distributions, but strong support from the government and DSG has made such attempts ineffectual. The targeting of eligible households may be a difficult task for relief committees in communities where there is a low percentage of households to be targeted, and where sensitization of the whole community is required. It has been relatively easy to resolve differences in the estimates of food aid required that were made at the national level and by the DSG. Feedback from beneficiaries about the functioning of the new system has generally been positive.



## Targeted food stamp programmes

### HONDURAS

The Honduran Bono de Madre Jefe de Familia Programme relies on teachers to conduct simple means tests. At the beginning of the school year, primary school teachers in participating states are required to identify students from households headed by women and with incomes below a set level. In addition, at schools where the results of the annual nutrition survey show high malnutrition, all first graders are eligible for the programme. To obtain information on income levels, the teachers interview the students' mothers during home visits or at the school.



Teachers spend about three days at the beginning of the school year identifying the beneficiaries of the programme. About 13 000 teachers are involved in the seven departments where the programme is operating. The programme benefits about 125 000 students per year in grades 1 to 3. Food stamps are also delivered through health centres in Honduras for the benefit of children under five years of age and for pregnant and lactating women, who are identified through nutritional surveillance.

## JAMAICA

In the Jamaican Food Stamp Programme, social workers from the Ministry of Labour, Welfare and Sport visit each candidate household and fill in a short form recording the candidate's address, household conditions and household income. The home visit allows the social worker to verify whether visible living conditions are in accordance with the level of income that the family reports. The characteristics of the dwelling or the ownership of durable goods are not formally used in the eligibility verification. During the early years of the programme, a single income threshold for eligibility was applied. Recently, a two-tiered threshold has been adopted, one tier for single-person households and another for larger households. About 150 full-time field workers, who work on a two-month cycle, administer the Jamaican programme. The first month of the cycle is devoted to identifying the beneficiaries, and the second to distributing the food stamps. The programme has about 300 000 beneficiaries. For half of these, eligibility is established through a means test, while the other half participate in the maternal and child health part of the programme, for which there is no means test to establish eligibility.



## VENEZUELA

The Venezuelan Food Stamp Programmes are targeted to all children in selected primary schools. The choice of school is left to the education authorities at the state level, although schools in low-income urban or rural zones are supposed to be selected. Rather than providing set guidelines or standards for defining a needy school, officials are left to use their "expert opinions" regarding the level of need at each school. The percentage of schools that receive food stamps varies from 60 percent of those in the poorest third of the states (as defined by the national poverty map) to 40 percent of schools in the wealthiest third of the states. A committee made up of representatives from the Ministry of Education, parent-teacher associations, neighbourhood associations and the school certifies the lists of beneficiaries.

## Targeted school feeding programmes



### BANGLADESH

In Bangladesh's Food-for-Education Programme, eligible beneficiaries are selected from poor households, which are identified as being: a) landless, or owning less than 0.5 acres (0.2 hectares) of land; b) headed by someone who works as a day labourer; c) headed by a woman; or d) headed by someone engaged in low-paid work (such as fishers, potters and cobblers). Children enrolled in the programme must attend 85 percent of classes each month. If a household has only one primary school-age child, it is entitled to 15 kg of wheat per month. If a household has more than one primary school-age child, and sends them all to school, it is entitled to 30 kg of wheat per month. As a result of the programme, school attendance increased from 63 percent in 1993 to 77.6 percent in 1994, and drop-out rates declined from 18.5 to 10.9 percent. Leakage to the non-poor has been estimated at only 6.5 percent of total benefits.



### CHILE

The objective of Chile's School Feeding Programme is to provide social and food assistance to low-income children attending public or private schools. The main goals of the programme are to promote school attendance and improve academic performance by providing free meals to schoolchildren. Food assistance consists of one of the following combinations: only breakfast, breakfast and lunch, or lunch and afternoon snack. The meals are distributed approximately 180 days per year. Children in boarding schools receive all their meals through the programme. The dietary energy content of the meals provided depends on the vulnerability index of the school.

The programme is targeted at the school level, but individual data on children are used to rank schools according to a vulnerability index. Some children in participating schools do not take part in the programme, apparently to avoid the stigma associated with participation, while others arrive early to receive their meals (for the same reason).

The programme's targeting method has changed substantially over time. Until 1980, school teachers selected programme participants according to their subjective assessment of each child's socio-economic situation. However, that method was determined to be too subjective to ensure an equitable distribution of programme resources. Between 1980 and 1982, the CAS socio-economic index

system was used to identify beneficiaries, but it was decided that the variables included in the CAS were not appropriate for classifying poor households in rural areas. In addition, there were also logistic problems in applying this instrument, making it difficult to obtain up-to-date CAS ratings for all of the families that requested programme participation.

In 1983, a school census was implemented to identify children in need of food. The census was conducted annually until 1985 and included information on weight-for-height, height-for-age, CAS index, teacher's assessment of need, the distance between the child's home and the school, location of the school, and the child's age. Given evidence that the food needs of first graders were representative of the overall need at the primary school level, only this group was included in data collection efforts. In 1985, a qualitative evaluation determined that the targeting strategy was not achieving its objectives fully, and a new approach was tested. Programme benefits were defined at the county level rather than the individual school level, and local county authorities were responsible for determining the number and types of meals to be offered in each school. Within each school, the teachers again selected the children who were to receive the benefit.

In 1986, another evaluation indicated that 13 percent of children in the upper-income quintiles were receiving benefits. To control this leakage, the targeting strategy was revised again. A weighted index was defined which included the following variables: mother's educational level, percentage of high-aged children in first grade, prevalence of height deficits, teachers' criteria of urgent need, and repetition rates. Information on these variables was collected from first graders to determine a school-level rating, which was then used as a basis for allocating the number of meals per school. A new statistical approach was applied in 1990 to identify and weigh different targeting indicators for predicting school needs. Different models were developed in 1993 for urban and rural primary schools, as well as a model for the allocation of meals to secondary schools.

The process of data collection is gradual and without pressure. Information is analysed in the second semester and is used for targeting of the following year's programme. By the end of the year, the process of ranking the schools on the vulnerability index is completed, in time for that information to be integrated easily into the budgeting process for the next year.

Results confirm that the programme definitively reaches the poor. More than 80 percent of its beneficiaries at the primary school level belong to the lowest





income quintiles. Targeting costs are estimated to be remarkably low: US\$36 772, or less than 0.05 percent of the total programme budget. The programme provides a strong incentive for parents to send their children to school: 58 percent of the children in rural areas completed primary education in 1990, compared with only 40 percent in 1986.

### COSTA RICA

For many years, all schools were included in Costa Rica's School Lunch Programme. During that period, an evaluation found that 62 percent of the benefits went to children of the poorest 40 percent of households, which suggests a substantial leakage rate. More recently, three levels of benefits have been specified, and the amount of lunch subsidy per child that a school receives is determined by the size of the school and the poverty rating of the area that the school serves, in accordance with the Planning Ministry's poverty map. Combining information on school size with that from the poverty map establishes three priority levels for the distribution of lunches. Priority 1 schools are those in the poorest strata, according to the poverty map, and schools with only one teacher and fewer than 100 students. Priority 2 schools include those in the intermediate poverty strata as well as those in the higher strata, but with between only 100 to 500 students. Priority 3 schools include all schools in the most well-off strata and with more than 500 students. This is an example of clear geographic targeting, without additional individual targeting.



### JAMAICA

The Nutrition Programme in Jamaica is meant to serve schools in poor areas. The selection of schools is based solely on the Ministry of Education's informal knowledge of which schools are located in poor areas. The programme involves the daily delivery of food products from central bakeries, so schools with access to good roads tend to be served better than those in more remote areas. Nevertheless, 72 percent of benefits go to the poorest 40 percent of the population.

### URUGUAY

The school feeding programme in Uruguay dates back to the early 1900s, when it was started in rural schools and later extended to include urban schools. In 1983, the administration of the food services passed to the Council of Primary Education, and the purpose of the programme was then defined as supporting nutritional improvement among schoolchildren. In September 1991, the goals set for 1995-2000 were expanding programme coverage and improving service delivery.



ery. The programme provides different food services, depending on the nutritional needs defined for different schoolchildren: lunch; breakfast and/or lunch, plus a snack; breakfast, lunch and dinner, plus a snack or a glass of milk. In 1994, the programme reached 37 365 children in 173 schools (31.6 percent of the total) in Montevideo, while the remaining 68.4 percent did not receive any food service. In 1995, the programme reached 128 661 children in rural schools (85 percent), mostly by providing lunch.

The programme has no clearly defined target population and its nutritional and educational impacts were not known until an evaluation was undertaken in 1996-1997. The evaluation set out to examine, among other things, the outcome of the programme's targeting schemes. As far as the programme's nutritional impact is concerned, the evaluation of schools in Montevideo concluded that: i) participating children did not generally improve their nutritional status over time, compared with non-participating children; ii) overall, participating children had a worse nutritional status than non-participating children; and iii) among participating children, the greater their dependency on the school feeding programme for daily food intake, the more likely that their nutritional status was to worsen. Since part of the evaluation is based on a cross-sectional analysis, those results can be interpreted to indicate that the overall targeting schemes were successful in reaching the schoolchildren at greatest risk of nutritional deficiency.

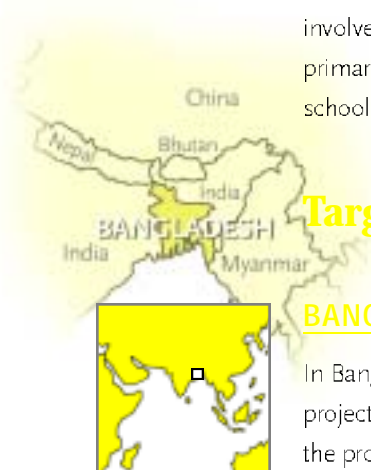
Programme targeting is done administratively at two levels: a) selection of schools to receive a food service; and b) selection of schoolchildren to participate in the meal or snack service of schools that offer such a service. The evaluation found that the median percentage of children with deficient height-for-age was 20 percent among schools with a food service, and 14 percent among schools without one. Among the primary schools in Montevideo, 31.6 percent offered a food service, reaching 18 percent of primary school students. When schools were stratified according to an index of school deficiency (*Índice de Escuelas Carenciadas*), there was a clear tendency for the percentage of schools with a food service (and the programme's student coverage) to increase with the school deficiency score: 76 percent of schools with a score greater than 75, accounting for 46 percent of the student body, versus 0 percent of schools with a score less than or equal to 40. Neighbourhoods where primary schools were located were also stratified according to a poverty index of deficiency in basic needs (*Índice de Necesidades Básicas Insatisfechas*) based on housing conditions and the education and occupation of heads of household. Some 55 percent of schools in neighbourhoods with a score greater than 40 offered a food service,

covering 33 percent of the student body, compared with 7 percent of schools in neighbourhoods with a score less than or equal to 20, reaching 2 percent of the student body.

The intra-school selection of students who are eligible to participate in the food service is the responsibility of the school principal. No specific and operational criteria were established. The school principal's subjective assessment of children in need of complementary food determines actual participation. In some cases, the principal is assisted in the selection process by the inspector of food services and/or a social worker. Elements that are taken into account by school principals include: children who appear to be at nutritional risk, particularly those referred by health centres; the family situation of the child; and the child's school performance.

The results of the analysis showed that, among schools in low-income neighbourhoods, participation in the food service was perfectly random ( $E = 0.03$ ), when taking nutritional status (height-for-age) as the criterion for programme participation. Among schools in better-off neighbourhoods, food service access was actually less likely to be directed to students with poor nutritional status ( $E = -0.27$ ). When the family's NBI score is taken as the criterion for student access to the food service, the targeting results were somewhat better ( $E = 0.38$  among schools in low-income neighbourhoods, and  $E = 0.14$  among schools in better-off neighbourhoods). This suggests that the principals' selection of students for participation in the food service may be more influenced by consideration of the family's socio-economic conditions than of the child's nutritional risk.

The overall conclusion was that targeting of the school feeding programme involved a significant degree of leakage and undercoverage in terms of reaching primary schoolchildren at nutritional risk, probably owing more to the intra-school selection process than to the school selection process.



## Targeted integrated nutrition programmes

### BANGLADESH

In Bangladesh, an NGO called BRAC has been carrying out a targeted nutrition project in the Muktagacha *thana* (subdistrict) since 1993. The main objective of the project is to improve the health and nutritional status of children, adolescent girls and pregnant and lactating women in this area. The project entails

nutritional surveillance, nutrition and health education, food supplementation for the faltering and severely malnourished, and the referral of the most severe and complicated cases to government health facilities. In addition to basic health and nutrition services, the project also provides adolescent education, along with skills development and credit for women's income-generation in a community participation format.

Supplementation is targeted to the severely malnourished and those whose growth is found, through surveillance activities, to be faltering. Specific targeting criteria were determined by the project staff's detailed review of other targeting methods employed in similar activities, such as the Tamil Nadu Integrated Nutrition Programme.

The selected targeting criteria are:

- n **Women.** All the pregnant women in the community are identified and registered by the third month of pregnancy by the local BRAC health worker who conducts regular home visits each month. Women are asked to come to antenatal care centres monthly, where they are weighed and given antenatal care. Those with a body mass index (BMI) of less than 18.5 are enrolled in the supplementation programme. They remain in the programme during a post-natal period of up to six months and continue to receive nutrition education from health workers during follow-up visits.
- n **Children.** Children are enrolled in the growth-monitoring programme at birth. There are three basic criteria for children's enrolment in the food supplementation programme: 1) those born with a low birth weight (less than 2.5 kg); 2) those under 12 months of age who do not show gains of 500 g at three successive weighings; and 3) those aged 12 to 23 months who fail to gain 300 g at four successive weighings. Estimation of growth faltering is based on the weight measured at the growth-monitoring and antenatal care centres.
- n **Adolescent girls.** Girls aged 11 to 15 years who attend local primary schools run by BRAC are provided with a mid-morning snack during their school day.

Although detailed data on targeting effectiveness are not available, the project reports minimal leakage of project benefits, along with some degree of undercoverage. The latter is caused by the project's inability to overcome a variety of social and personal barriers to participation, as well as unspecified lapses in project implementation. Coverage of the surveillance portion of the activity has increased over time, and 90 percent of the children in participating communities

were under surveillance in 1995. The percentage that needed and received supplementation rose from 26 percent in 1993 to 46 percent in 1994, falling back to 32 percent in 1995. An important concern for the project is whether the exit criteria are appropriate. For example, underweight children who show a gain in weight following supplementation but remain below the standard weight are currently required to exit from the supplementation programme. The project is assessing alternative mechanisms to rehabilitate these children and ensure that their families are given special attention.

## Targeted supplementary feeding programmes



### CHILE

The National Supplementary Feeding Programme (PNAC) in Chile is the longest running nutrition intervention in the country and has the broadest level of coverage. Food supplements are distributed through public clinics on a monthly basis as an integral part of the primary health care (PHC) system. The types and amounts of food items supplied vary according to the beneficiary's age and nutritional status. At present, 1.2 million children under six years of age and 200 000 pregnant women participate annually. This corresponds to approximately 80 percent of the national population of infants under two years and 70 percent of pre-schoolers and pregnant and nursing mothers. In 1996, about 30 000 tonnes of food products were distributed at a total cost of approximately US\$60 million, or roughly 7 percent of the Ministry of Health's total budget.

The basic PNAC supplement is provided to beneficiaries who are nutritionally normal and show no evidence of protein-energy malnutrition (defined as weight gain greater than 75 percent of that expected for their age, based on World Health Organization [WHO] standards). The programme was enhanced in 1983 to provide extra food supplements to infants and children identified as being at risk because of poor growth and development, or through socio-economic indicators. Food amounts are substantially greater in the enhanced programme rations and include additional quantities of rice to benefit all household members, in order to prevent intra-household sharing of foods destined for infants.

**Women.** In 1989, nutritional surveillance began to include maternal anthropometry. Until 1987, eligibility for participation in PNAC was determined according to a standard weight gain during pregnancy developed by the University of Chile. The

Rosso-Mardones standard, based on ideal weight-for-height and adjusted for gestation age and baseline weight, was introduced. Currently, about 80 percent of the total amount of food supplements received by pregnant women are assigned to those classified as being at risk according to these standards.

**Children.** From 1983 to 1994, children with poor growth were defined at programme entry by one of the following criteria: a) weight-for-height less than -1 SD of the WHO reference norm; or b) weight-for-height greater than -1 SD, but a weight gain of less than 75 percent of that expected for age in two consecutive health controls; or c) those under two years of age and weighing less than 50 percent of expected weight-for-age. The criteria for discharge required a weight gain that is over the norm in three consecutive health check-ups. In 1990, 17 percent of all children in the PNAC programme were classified as being at “biomedical risk”, and received 52 percent of the total amount of food distributed. These children were followed more closely and had more frequent health check-ups.

A review of the programme in 1992 indicated that the nutritional benefits of the enhanced programme were marginal for most children and that there was no relationship between the length of participation in the enhanced programme and nutritional status on entry. In fact, on average, children who had a weight-for-height of less than -1 SD of the WHO reference norm on entry had similar permanence in the programme as those who had a weight-for-height greater than or equal to the median. Only 14 percent of the children entering the enhanced programme were even mildly wasted (weight-for-height less than -1 SD). The rest had normal or elevated weight-for-height. The weight gain criteria were also demonstrated to be extremely sensitive but of little specificity in determining who needed extra food. The review concluded that the enhanced programme tended to target children who were not really at risk of malnutrition. In addition, the criteria for discharge were determined to be inadequate, since a large proportion of the children kept on the programme gained no real benefit in terms of growth.

As a result of this review, targeting methods have been revised and currently follow international guidelines: malnourished children are defined as those with a weight-for-age that is less than -2 SD of the WHO reference norms for children under two years of age. For children over two years of age, a weight-for-height of less than -2 SD defines malnutrition. At-risk children are those defined as having a weight-for-age between -1 and -2 SD at under two years of age, while for those over two years of age, a weight-for-height between -1 and -2 SD defines being at risk. The programme has also modified the criteria used for discharge. Currently,

at-risk children have a maximum permanence of six months per year. Malnourished children have to demonstrate, in three consecutive health evaluations, a weight-for-height that is above -1 SD (WHO reference norm) for discharge. These modifications, based on solid information and technical criteria, have improved targeting and cost-effectiveness.

Because the PNAC relies on information gathered during regular health check-ups, there is no additional administrative burden involved in targeting. Given the good results of targeting, it is clear that an efficient clinic-based surveillance system, which can keep track of the levels of benefit according to age and nutritional status, is vital to ensure rational use of limited resources. Implicit geographic targeting also occurs with the PNAC, since there are more public clinics in poor than upper-income areas. The PNAC is, in part, self-targeting since many upper-middle and upper-income families do not participate because of the long waiting time to obtain the supplement. Until 1994, participation in the two upper quintiles was relatively high, at 60 percent and 23 percent, respectively. Although income level is not a specific targeting criterion, evidence suggests that more stringent targeting requirements might still be appropriate.



### COSTA RICA

The CEN-CENA nutrition centres provide: a) day care with feeding, nutrition education, growth monitoring and early childhood education; b) a take-home milk programme; and c) a take-home family food basket. Targeting is based on geographic location, expert referrals, the employment status of mothers and psychosocial risk scores derived from the use of a simple form. For all programmes, children are granted entry according to the following priorities: a) those who are malnourished, maltreated or abandoned, those referred by an institution or those with risk scores of at least 40; b) those whose mothers work outside the home and who have risk scores of 50 or more; c) those whose mothers do not work outside the home and have risk scores of 60 or more. Day care centres also require that children live within a radius of 1 km. Malnourished children are identified through local health centres. Those admitted as a result of a risk assessment are usually evaluated at the request of family members. Workers in clinics and schools may also refer children for a risk assessment.



### DOMINICAN REPUBLIC

The Mother-Child Programme (PROM) operates only in the three poorest regions of the country, and consists of growth monitoring, nutrition education and supplementary rations to pregnant and lactating women and children under



three years of age who are determined to be nutritionally at-risk. Pregnant women are considered at risk if: a) they have an upper-arm circumference of less than 23.5 cm; b) they were pregnant in the preceding year; c) their last child died during the first year after birth; or d) they are over 35 years of age. Children are considered at risk if they have second- or third-degree low weight-for-age, or if they have not gained weight for two consecutive months. Evaluations are made on-site by the health worker.

## PERU

Targeting of the Nutrition and Feeding Programme for High-Risk Families is conducted through health workers' on-site evaluations and extension visits. For each child evaluated under the programme, the health worker in the participating health post fills out a form that evaluates ten risk factors, including both socio-economic and biomedical factors. Children under two years of age who are less than 90 percent of normal weight-for-age automatically qualify for participation. Otherwise, the health care worker ranks children according to the number of risk factors indicated in their responses. The remaining rations are allocated in order of priorities. The allocation of rations to each health post is based on available information on the population and facility-specific measurements of nutritional status. Implementation of this system has not been very effective. Some 89 percent of the assessed households were found to be eligible for benefits, mainly based on an evaluation of socio-economic indicators with limited assessment of biomedical risk factors. In practice, extension visits are very rare.



## Targeted food subsidies

### EGYPT

Egypt has a large and relatively complex food subsidy system dating back to 1941, when the Egyptian Government introduced rationing in order to provide consumers with such necessities as oil, sugar, tea and kerosene at low prices. The food subsidy system is part of a consistent policy that has been followed over the last 50 years to assure general access by the population to basic needs. During the 1950s and 1960s the total cost of the system remained small, but during the 1970s costs increased significantly in response to increases in world wheat prices. By 1980, food subsidies had expanded to include 18 food items and to account for 17 percent of total government expenditure. At that time, virtually the entire Egyptian population had access to subsidized foods through the use of ration cards.



Since the early 1980s, the Egyptian Government has been cutting back on public expenditures on all subsidies, including food. To reduce the costs of food subsidies, the government has used a variety of strategies, including increasing the price of subsidized food commodities, reducing the number of ration book holders and reducing both the number and the quantity of subsidized food items available to consumers. These strategies have been implemented slowly and gradually, enabling consumers to adjust more easily to the changes and avoiding any immediate hardship which could be caused by abrupt changes in food subsidies.

Since 1995, only four food items – bread, wheat flour, sugar and oil – have been subsidized in Egypt, accounting for less than 6 percent of total government expenditure. Brown bread (*baladi*) and wheat flour are sold to all Egyptians without restriction. Sugar and oil are distributed to consumers on a monthly quota basis through ration cards which are divided into two categories, with income as the defining criterion: green cards provide a higher rate of subsidy for lower-income households, and red cards are for higher-income households. Within the ration card system, the amount of subsidized oil and sugar that can be purchased monthly is based on family size (per capita rations). All but approximately one-fifth of Egyptian households hold some kind of ration card.

Bakers receive a daily quota of subsidized wheat flour and are required to produce a specified number of loaves of *baladi* bread of a specified weight per kilogram of flour. Production monitoring is carried out to ensure that these standards are met and to guard against leakage; there is a system of fines for infractions of the rules.

Through these reforms the government has been able to cut the total cost of food subsidies from LE 2 918 million in 1980-1981 to LE 865 million in 1994-1995. In 1994-1995 bread and wheat subsidies accounted for 60 percent of the total budget for food subsidies. In addition, the existence of other types of non-subsidized bread has led to demand from the non-needy population, reducing the beneficiary ratio cost from 92 percent to only 67 percent. It is worth noting that the subsidized brown *baladi* bread (82 to 90 percent extraction rate) is nutritionally superior to the non-subsidized bread made from fine or very fine wheat (76 and 72 percent extraction rates, respectively) since it is higher in fibre, vitamin and mineral content and has an appealing taste.

The current food subsidy system has generally been effective in providing certain basic items for food security for the poor through a combination of self-targeting

(for *baladi* bread and wheat) and income-based targeting for oil and sugar. However, the absolute cost of food subsidies remains high. In an effort to continue improving the programme's effectiveness in reaching all of the most needy population and to improve its overall cost-effectiveness, the government is currently conducting a thorough review of the food subsidy programme.



## ISLAMIC REPUBLIC OF IRAN

Subsidizing of basic food commodities is a long-running consumer price policy in the Islamic Republic of Iran. A major objective of this policy is to maintain low food prices to consumers. Subsidized commodities include wheat flour and bread, sugar, rice, milk products, meat, tea and edible oil.

The Iranian food subsidy programme covers all rural and urban socio-economic classes. This non-targeted subsidy programme has little administrative cost, but carries substantial fiscal costs that must be borne by the government. For instance, in 1997, the cost of the food subsidy amounted to almost 6 percent of gross domestic product (GDP) at current prices; about 64 percent of it went to urban consumers and the rest to rural people.

Most of the consumer food subsidy budget (75 percent in 1997) has been spent on wheat flour to keep the price of bread to consumers low. In order to accomplish this, the government purchases the wheat crop from local farmers, based on a guaranteed price which is revised every year by the National Economic Council (NEC), and sells it to the bakeries at a much lower price. For example, in 1997, the government paid 480 rials/kg of wheat to the local farmer and provided it to the bakeries at the price of 40 rials/kg (less than one-tenth of the price paid to producers).



Because of the high fiscal costs of the general food price subsidies, the government is now considering a more efficient way of subsidizing foods through self-targeting.



## TUNISIA

Since 1970, the Tunisian Government has subsidized the consumption of basic foodstuffs. By the 1980s, the universal subsidy had turned out to be very costly, accounting for 4 percent of GDP and 10 percent of total government expenditure. The huge and rising programme costs, combined with substantial leakage to the non-poor, made an overhaul of the universal subsidy system an urgent pri-

ority. The government introduced a reform programme which included: 1) improving the targeting intervention towards the poor; 2) gradually adjusting prices to reduce and eliminate subsidies on certain products (such as animal feed) progressively; and 3) reducing unnecessary production and distribution costs for subsidized products.

The government adopted a policy to promote self-targeting using quality grading, which involves examining household expenditure data to determine whether there are significant differences in consumption across income groups. Thus, if the poor consume a different basket of goods than wealthier consumers do, the poor's basket can be selected for subsidization in order to focus on foods (inferior) that are unattractive to wealthier consumers because there are higher-quality alternatives. The "superior goods" approach allows other varieties or qualities to be available on the market at higher costs for those who can afford them, leading to a shift in demand from wealthier households who then consume less of the subsidized products. With such types of self-targeting strategies, subsidized food commodities are still available to all, but they are selected specifically to discourage the rich from consuming them.

By 1993, the Tunisian self-targeting reform programme had significantly reduced overall costs and government expenses. The reform has also been effective on equity grounds: under the universal subsidy programme more absolute benefits were transferred to the rich than the poor, while the poor benefited more from food subsidies than the rich through self-targeting.

Several lessons emerge from the Tunisian example:

- n The existence of "superior" alternatives is an essential companion to the "inferior" foods approach.
- n Introducing a small promotional subsidy on a superior variety can actually decrease total outlays on the subsidy programme.
- n There is a fine line between making a product unattractive to wealthier consumers and making it also unappealing to the poor.
- n Subsidies should be set so that consumer prices reflect perceived quality differences appropriately.

## Summary of self-targeting efforts in Tunisia

	INFERIOR FOOD APPROACH	SUPERIOR FOODS APPROACH
<b>Durum wheat products</b>	<ul style="list-style-type: none"> <li>▫ Maintain subsidies on semolina (continuous)</li> </ul>	<ul style="list-style-type: none"> <li>▫ Eliminate direct subsidies on couscous and pasta (1993)</li> </ul>
<b>Bread wheat products</b>	<ul style="list-style-type: none"> <li>▫ Replace subsidies on gros pain with subsidies on a single subsidized bread (<i>pain unique</i>) made from a distinct high-extraction rate flour (1995-1996)</li> </ul>	<ul style="list-style-type: none"> <li>▫ Eliminate subsidies on baguettes (1993)</li> <li>▫ Eliminate subsidy on pastry flour (1991)</li> <li>▫ Liberalize production of other breads that attract the demand of high-income consumers (1991-present)</li> </ul>
<b>Cooking oils</b>	<ul style="list-style-type: none"> <li>▫ Eliminate olive oil from subsidized <i>huile de melange</i> resulting in the creation of a subsidized generic grain oil (1989)</li> <li>▫ Shift subsidy towards generic oil, sold mostly to the poor in small quantities from large drums (<i>en vrac</i>), and away from bottled oil which is mainly purchased by the rich (oil type differentials: since 1989; packaging differentials: proposed)</li> </ul>	<ul style="list-style-type: none"> <li>▫ Liberalize imports of pure grain oils packaged in glass bottles and sold at cost to attract high-income consumers and reduce consumption of subsidized oils (1992)</li> <li>▫ Create “fixed mixed” cooking oil with 40% olive oil and 60% grain oil to diversify range of products on market and reduce unit subsidies per litre (1993)</li> <li>▫ Olive oil also serves as a “superior” good (continuous)</li> </ul>
<b>Sugar</b>	<ul style="list-style-type: none"> <li>▫ Shift subsidy towards less-refined brown sugar which is not preferred by upper-income groups (1990)</li> </ul>	<ul style="list-style-type: none"> <li>▫ Eliminate subsidies on cube sugar, which is consumed virtually exclusively by the rich (1991)</li> </ul>
<b>Milk</b>	<ul style="list-style-type: none"> <li>▫ Shift subsidies to pasteurized-reconstituted milk (least-preferred type of milk) packaged in cheaper cartons that are less attractive to wealthy consumers, such as <i>berlingot</i> cartons and <i>coussin</i> milk pouches (1991-1994)</li> </ul>	<ul style="list-style-type: none"> <li>▫ Apply a small, temporary promotional subsidy to fresh, locally produced sterilized milk (a luxury) which is consumed primarily by the rich (1992)</li> </ul>

## Targeted food fortification programmes



### PAKISTAN

Pakistan has tried to correct a very serious vitamin A deficiency problem through food fortification. Banaspati ghee, a form of hydrogenated oil, was selected as a food vehicle for vitamin A fortification, since it is widely used for cooking purposes. To narrow the gap between the increasing demand for hydrogenated oil and its limited supply, the government adopted measures to create incentives for manufacturers to increase production, while fortifying it with vitamin A (33 iu/g or 9.9 ug/g). The government made the vitamin A fortification of ghee and oil compulsory through legislation.

While the adopted measures resulted in increased production, little attention was given to quality control and assurance. This led to a relatively large amount of oil being produced, but with a low level of vitamin A fortification and, in some cases, without being fortified. An assessment in 1993 of the vitamin A level of different brands of *Banaspati ghee*, vegetable oil and margarine revealed that none of these products contained the level of vitamin A specified by the Pakistan Standard Institute. Only 40 percent of the analysed samples contained half of the recommended level as their maximum level, while the remaining 60 percent had even lower levels of vitamin A content.

This is an example of self-targeting through the selection of the food vehicle to be fortified. A food that is very much part of the daily diet of low-income groups, as is the case with ghee in Pakistan, will benefit the most vulnerable groups, but may also contribute to prevention of micronutrient deficiency in other groups, depending on their consumption patterns of the fortified group. Here, the concern is more with adequate coverage of the vulnerable groups than with leakage to less vulnerable groups.

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## Conclusions and Necessary Actions

### Rationale for targeting

The previous chapters have laid out a rationale for targeting, and pointed out the main technical, social, economic and political considerations involved in various targeting schemes, focusing on targeted food and nutrition programmes. The main rationale for targeting lies in maximizing programme efficiency. A secondary rationale may be found in equity considerations. If targeting is effective and targeting costs are marginal, programme efficiency is enhanced by concentrating programme benefits among the most needy, providing for a higher social return and, possibly, lower social costs compared with those achieved by a non-targeted programme. Improved social equity is another possible outcome because effectively targeted programmes have a redistributive effect; in essence, benefits are concentrated in the target group through programmes that are financed and resourced mostly by non-target groups. The latter may include higher-income groups, who presumably contribute to the tax receipts that fund public food and nutrition programmes (or finance food subsidies); foreign donors that provide food aid; or civil society organizations that implement food and nutrition programmes and projects.

Thus, targeting effectiveness and targeting costs are key in providing a rationale for targeting. Ineffective targeting may result in a targeted programme that is no more efficient than a non-targeted one would have been. Poor or “adverse” targeting, which means that more programme benefits are received by members of the non-target group than by the target group, may result in less programme

inefficiency than non-targeting, but such programmes lose their redistributive effect. When targeting costs absorb a large share of programme resources, and thus limit the programme benefits that can be passed on, targeting loses much of its rationale. As some of the examples in the Annex indicate, in a number of countries, targeted food and nutrition programmes absorb considerable national resources. Targeting effectiveness and programme efficiency should therefore be major concerns for planners and political decision-makers, as well as for society as a whole.

## Targeting effectiveness

As has been seen, food and nutrition programmes are administratively targeted or self-targeting, or they have components of both. In administratively targeted programmes, targeting is based either on indicators, as for instance with geographic targeting or in school feeding programmes (see Annex), or on a means test. Targeting indicators should relate directly to programme objectives. Eligibility criteria are usually developed on the basis of indicators that define the target group. In self-targeting programmes, the target group is usually more loosely defined, and targeting effectiveness is more difficult to assess.

Inclusion and exclusion errors, or undercoverage and leakage rates, are parameters of targeting effectiveness. When both are high, and thus targeting is ineffective, efforts to improve targeting should focus on reducing the undercoverage rate, as long as the programme budget is not a concern and there is a desire to improve the transfer of programme benefits to those most in need, thereby increasing the social returns of the programme. A programme that is faced with budget cuts is likely to focus more on measures to reduce the leakage rate.

## Targeting costs

Targeting costs comprise administrative and information costs. Both of these are borne in varying proportions by the programme and by programme participants and non-participants. Targeting costs borne by the programme reduce its efficiency in delivering programme benefits, while targeting costs borne by programme participants reduce the net benefits received through participation, as they increase participation costs. Administrative targeting costs consist of costs associated with screening and monitoring the eligibility of programme participants. Information costs are the costs incurred by obtaining, processing and



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**In many countries, targeted food subsidies or food fortification programmes for basic food items are implemented to enhance food security and nutrition.**

analysing data and information in order to define and characterize target groups, and by assessing and monitoring targeting effectiveness. Only those costs directly associated with targeting should be counted; that is, costs that are not incurred when there is no targeting. Information costs will also be incurred in relation to programme development, the monitoring of programme implementation, and the evaluation of programme cost-effectiveness and impact in terms of achieving its objectives and goals.

Programmes that are administratively targeted will normally have higher targeting costs than self-targeting programmes. Reducing targeting costs is part of the rationale for implementing a self-targeting modality. As the example from the Chile national school feeding programme demonstrates, administratively targeted programmes can also have low targeting costs. Reducing or keeping under-coverage and leakage rates low will normally raise administrative targeting costs, so a trade-off is to be considered: does the improved allocation of programme benefits warrant the higher administrative targeting costs incurred?

The information costs of targeting basically depend on the following:

- n the availability of valid existing information and data to programme planners;
- n the complexity of the targeting indicators;



**Healthy, well-nourished people have a higher quality life, and can contribute actively to their families, communities and their countries.**

- n the data collection strategies and methods that will be applied to obtain primary data and information;
- n how often targeting effectiveness will be assessed;
- n how well the agency responsible for data and information processing and analysis is technically equipped to undertake these tasks efficiently.

Trade-offs also need to be considered in relation to the selection of targeting indicators: the information provided by the indicators should be relevant and valid, accurate and reliable, timely, tech-

nica, socially and culturally accessible, and obtained at low cost. It is practically impossi-

ble for a given information strategy to produce targeting indicators that meet all of these criteria.

## Areas for action

Throughout the previous chapters, and in the Annex, there are references to real experiences with targeted food and nutrition programmes. These, as well as many other examples from around the world, demonstrate that targeting has a number of operational pitfalls and may not always be effective or contribute to programme efficiency. In many cases, however, targeting is shown to be very effective. In a limited number of cases targeting effectiveness is monitored and evaluated, and leads to changes in eligibility criteria. This record of accumulated experience in targeted food and nutrition programmes indicates some broad areas for action that can contribute to improving the targeting effectiveness of targeted food and nutrition programmes in developing countries and to lowering targeting costs, thus improving the programmes' efficiency.

## INSTITUTIONAL CAPACITY BUILDING

Within the institutions and agencies that develop, implement, administer and monitor food and nutrition programmes, there must be adequate technical capacity to develop, administer and assess targeting schemes. Such agencies are likely to include several government institutions, at both the national and the sub-national levels, as well as civil society organizations. Through staff training at the national and sub-national levels, technical capacity can be created or enhanced in such areas as programme planning and assessment techniques, data and information collection methods, data processing and analysis, and programme monitoring and evaluation methodologies. Supervisory personnel at facilities where targeted programmes are implemented must have the necessary social communications and interpersonal skills to instruct and motivate staff with respect to the application of eligibility and exit rules. Local staff of programmes that rely on community-based targeting must be able to communicate well and sensitively with communities where the programme is to be implemented.

## STRENGTHENING INFORMATION SYSTEMS

Data and information are key inputs in the development, administration and assessment of targeting schemes. Data and information are needed in order to identify, characterize and monitor target groups (based on targeting indicators and qualitative information), develop and administer eligibility criteria, assess targeting effectiveness, and monitor programme efficiency and impacts. Targeting costs can be significantly reduced when functioning national and sub-national information systems are in place and there is effective sharing of data and information among institutions and agencies. Such information systems normally serve multiple purposes, and programme planners and decision-makers can simply tap into the available data and information when they are designing targeting schemes, including when they are defining and describing target groups.

Primary data do not have to be collected and processed every time a targeted programme is developed and implemented. For example, in many developing countries, efforts are currently under way to establish a food insecurity and vulnerability information and mapping system (FIVIMS) as part of a worldwide, inter-agency initiative. In other countries, similar information systems exist, but are called by another name. Furthermore, in a number of countries that are prone to acute hunger conditions resulting from drought or other natural disasters, and that depend heavily on food aid, the World Food Programme has set up

vulnerability assessment and monitoring (VAM) units which monitor food-insecure and vulnerable population groups. Similarly, famine early warning systems (FEWS) monitor food conditions in order to assess food aid needs. Such information systems are well developed in only a few countries and, in others, efforts to strengthen these systems should be supported – they can become valuable sources of data and information for the effective targeting of food and nutrition programmes.

## INTER-INSTITUTIONAL PARTNERSHIPS

Targeted food and nutrition programmes usually involve various institutions and agencies; for example, a school feeding programme can involve the ministry of education, local health facilities, the agency that coordinates food aid, and/or local agricultural extension services (for school gardens). A self-targeting food subsidy programme can involve the ministry of trade and industry, the ministry of finance, food industry associations and associations of food retailers. A food-for-work programme normally involves the agency that coordinates food aid, the ministry of public works, village associations, and regional or district administrations. Multiple-agency participation normally makes programme implementation, including the development of a targeting scheme, difficult. This is primarily because each agency has its own institutional priorities and its own interpretation of what constitutes the target population and how it should be identified. Unless there is clear consensus among the programme partners about such matters, targeting effectiveness may be negatively affected and targeting costs increased. Thus, it is important for the lead agency to assume the responsibility for consensus building, and for the strengthening of partnerships and communication flows among programme partners, from the very start.

## COMMUNITY PARTICIPATION AND EMPOWERMENT

One important determinant of targeting effectiveness is how well members of the target group are informed about their eligibility to participate. If administratively targeted programmes at the community level are not to interfere with community solidarity, all members of the community must be informed, and consent to, the targeting rationale, including the selection criteria for programme participation. In community-based targeting, community leaders must understand the targeting rationale and be open to community participation in selecting beneficiaries. It has been shown that parent participation in school feeding programmes is important and increases the programme's efficiency.



When intra-school targeting takes place, parents can assist with the identification of the most needy children.

High levels of consumer awareness and education are fundamental in self-targeting food subsidy or food fortification programmes. This means that considerable efforts should be made to ensure that targeted food and nutrition programmes promote community participation, educate and empower consumers, and mobilize community members as programme partners. Not only will these outcomes have a positive influence on targeting effectiveness, they will also contribute to overall programme efficiency and to sustainable human development in general.



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## Types of Targeted Food and Nutrition Programmes

### Supplementary feeding programmes

Supplementary feeding programmes are relatively large programmes in which a substantial number of beneficiaries are covered through the support of donors, international agencies and local governments. Such programmes are primarily designed to distribute food among children between the ages of six months and six years in order to improve their nutritional status or to prevent deterioration in their health and nutrition, both under emergency conditions and in response to chronic food and nutrition insecurity and structural vulnerability.

Such programmes normally target their interventions administratively by selecting the target groups according to geographic location, age or income level. The programmes might select the most disadvantaged rural areas and/or the poorest urban slums. The most common criterion for selecting eligible children is the child's nutritional vulnerability, and anthropometric measurements such as weight-for-age or weight-for-height indices are often used to establish eligibility for programme participation.

Many supplementary feeding programmes involve distributing a take-home food ration to mothers through health centres, on a weekly basis or less frequently. In some countries, the programme is well integrated into the primary health care services in which immunization, oral rehydration, family planning, health and nutrition education, growth monitoring and various other preventive and curative services are offered at the same time. Some programmes also include feed -

ing children who attend day care centres, or feeding severely malnourished children attending nutrition rehabilitation centres; others distribute food rations to pregnant and lactating mothers. In take-home food programmes, recipes can be demonstrated to help families learn how to use unfamiliar foods, increase variety in home meals and prepare meals for weaning-age and sick children. These programmes can also demonstrate the type and amount of food to feed young children or other vulnerable family members.

In supplementary feeding programmes it must be ensured that the ration provided is consumed personally by the intended beneficiary in order to derive a direct benefit from the programme. Leakage may take place within the household. Foods provided by the programme should be based on local food habits and cultural practices, to reduce programme leakage. Intra-household leakage can also be reduced through food selection, if specific household members are targeted for supplementary feeding.

The following are some of the special concerns related to supplementary feeding programmes:

- n Leakage to unintended beneficiaries can be caused by incorrectly applied eligibility rules, infrequent monitoring of eligibility, the absence of clearly stated exit rules, or incorrectly applied/enforced exit rules.
- n The time and energy costs to participants obtaining the distributed food(s) in relation to the value (to the participants) of the food should be such as to provide the target group with a clear incentive to participate.
- n Leakage resulting from intra-household sharing of the supplementary food(s) can be reduced through the choice of what foods to distribute (e.g. typical weaning foods that are not consumed by older children and adults), or by providing the household with a ration that is larger than that needed by the target child.

## Food fortification programmes

The fortification of food as a public measure to improve nutrition and to reduce or eliminate nutritional deficiencies has been widely practised for many years by a number of developed countries. The most common examples are the fortification of salt with iodine; wheat flour with iron, vitamins B<sub>1</sub> and B<sub>2</sub>, and niacin; and milk and margarine with vitamins A and D. Milk preparations and various types of weaning foods have also been successfully fortified with micronutrients,

especially in industrialized countries. The net result of fortification programmes in these countries has been the elimination or near disappearance of many micronutrient deficiencies. In developing countries, alongside massive campaigns to fortify salt with iodine, the fortification of wheat and maize flour with iron is being promoted (Mexico, Brazil, Venezuela, Central America) as well as the fortification of sugar with vitamin A (Guatemala). In some countries fortification is obligatory, and standards and norms have been established by law. In other countries fortification is not obligatory, but instead relies on strong partnership among the food industry, government and consumer interest groups.


The choice of food vehicle is important in these programmes, and is part of the self-targeting process. To ensure that the target population will benefit from a food fortification programme, an appropriate food must be selected. The selected food vehicle must be the most widely used food item or a staple food that is consumed throughout the year by a large portion of the population that is at risk of a particular deficiency. In order to reach different segments of the population who may have different dietary habits, selecting more than one food vehicle is often necessary.

Successful fortification of a staple food affects everyone, including the poor, pregnant women, young children and populations that can never be completely covered by social services. In addition, fortification reaches secondary at-risk groups, such as the elderly and those who have an unbalanced diet.

Food fortification is usually socially acceptable, requires no change in food habits, does not alter the characteristics of the food, can be introduced quickly, can produce nutritional benefits for the target population quickly, is safe, and is the most cost-effective way of reaching large target populations that are at risk of micronutrient deficiency. Experience shows that food fortification is sometimes opposed for professional reasons (concern about overdoses) or on human rights grounds (consumers should be fully informed about the fortification, or should have a choice of a fortified or non-fortified food). Unless fortification is obligatory by law, the food industry may be reluctant to fortify their product, out of fear of insufficient market demand for fortified foods or concern about consumer perceptions that the food product has been altered. Food fortification also raises production costs through such expenses as initial equipment purchases, equipment maintenance, increased production staff needs and quality control and assurance facilities.

The establishment of standards and norms, as well as the monitoring of quality control and assurance, are usually the responsibility of government and require

staff and laboratory facilities. Adequate quality control and assurance mechanisms are essential (as demonstrated by the Pakistan example presented in the Annex), and are more difficult and costly to implement when a large number of small producers are involved, as in the case of salt producers in many countries. Thus, the development and implementation of food fortification programmes must be accompanied by consumer education and awareness raising, social and political mobilization, the establishment of strong inter-institutional partnerships (including those within the food industry), and food and nutrition policy advocacy.



**In the Netherlands, people did not accept the universal distribution of iodized salt, as it was felt that it denied consumers the right of choice. This led to the presence of both non-iodized and iodized salt in the market. In Montevideo, Uruguay, three kinds of fortified salt – non-iodized salt, salt fortified with iodine, and salt fortified with iodine and fluoride – are available and sold at the same unit price. In the Islamic Republic of Iran, however, the universal distribution of iodized salt was accepted by the population and even led to a price increase of this product in some instances, indicating that it was considered a “superior good”.**

The following are some of the special concerns related to food fortification programmes:

- n Long-term measures for the prevention and control of micronutrient deficiencies should be based on diet diversification and consumer education about how to choose foods that provide a balanced diet, including the necessary vitamins and minerals. However, food fortification, which does not address these issues, has been a long-term preventive strategy in many developed countries.
- n The high prevalence of parasitic infestation and the high incidence of such infectious diseases as malaria among beneficiaries can have a negative effect on the effectiveness of food fortification programmes (as indeed of any food programme), especially in the case of reducing iron deficiency. This is also true of natural inhibiting factors such as polyphenol and phytic acid.
- n Particularly vulnerable population groups, such as children under five years of age, may not be able to consume large enough quantities of the fortified food(s) to satisfy an adequate level of their daily requirements, so diet diversity remains important. In this age group, food fortification as a therapeutic measure may not be sufficient, and micronutrient supplementation for children with low micronutrient status may be required.

## Supplementation programmes

Supplementation can be an important way of preventing and controlling specific micronutrient deficiencies. It is usually considered a short-term measure to be used while longer-term programmes are being developed and implemented, or it is applied therapeutically. For example, supplementation is used as an emergency action for displaced populations. Vitamin and mineral (iron, calcium, folic acid) supplementation programmes are mainly targeted to cover such high-risk groups as pregnant women, infants and toddlers, adolescents and women of child-bearing age. Iron supplementation is the largest and most commonly implemented supplementation programme in many countries. It is usually carried out through maternal and child health (MCH) and local health services, and sometimes through primary health care (PHC) programmes at the community level. Vitamin A supplementation is often undertaken in conjunction with periodic vaccination campaigns.

Supplementation programmes integrated into existing health programmes offer excellent opportunities for rapid and cost-effective action. To be effective, supplementation needs to be implemented systematically and to cover the target population fully. Training of health staff in proper supplement administration and education of the target population on the importance of compliance are fundamental for success.

While many supplementation programmes have been successful, some have not been effective. Several factors are responsible for this, including: inadequate coverage of the population in need of services; lack of political commitment and financial support; deficiencies in the supply and distribution of supplements at health centres; the cultural and health beliefs of providers and recipients; inadequate training of providers; inadequate education of recipients; the colour and other characteristics of the supplements; undesirable side effects; and low compliance.

The following are some of the special concerns related to supplementation programmes:

- n Consideration must be given to the presence of other conditions (i.e. the health status) that may limit the individual's response to supplementation; a combination of micronutrients may be required for optimal results.
- n Supplementation should be directed to the appropriate vulnerable groups, especially women of reproductive age (iodine and iron), infants and young children, the elderly and refugees.

- n Supplementation should be phased out progressively as soon as micronutrient-rich food-based strategies enable the adequate consumption of micronutrients and reduce the risk of micronutrient deficiencies sustainably.

## School feeding programmes

School feeding programmes have both a nutritional objective – to improve the nutritional status of schoolchildren – and an educational objective – to encourage school enrolment and attendance and to improve scholastic performance and cognitive development.

School feeding programmes operate with different modalities, ranging from the distribution of a small morning snack to full hot-lunch programmes that provide a relatively large proportion of the daily calorie, protein and other nutrient requirements. In some countries, eligibility is universal and all children who attend school are entitled to participate in the school feeding programme. For example, the Brazilian Constitution of 1988 specifically states that participation in school feeding is a universal right of all school-age children. In other countries, geographic targeting of schools in specific, low-income areas is applied and/or administrative targeting establishes eligibility for a limited number of students, usually based on nutritional or educational performance information about individual students, in addition to information about household conditions (see the country cases in the Annex). Such programmes generally require teachers' and school personnel's effort and time in acquiring, preparing and distributing the food and planning the menus. Parents are often encouraged to participate in the development and implementation of school feeding programmes.

The positive impacts of school feeding programmes are not limited to improving nutritional status and education performance. They also sometimes serve as means of introducing sound and healthy food habits and basic food hygiene practices. Certain activities such as school gardening, nutrition education and food preservation practices are sometimes linked to the school feeding programme and help address common nutrition and health problems, as well as enhancing the overall programme impact.

The benefits of these programmes can be increased by using local knowledge – particularly that of mothers – in developing locally acceptable recipes, methods of cooking and size of individual servings, and in identifying local foods that can be added to the donated one.



The following are some of the special concerns related to school feeding programmes:

- n The phasing out of such programmes is typically associated with a high drop-out rate from school, indicating the low sustainability of programme effects.
- n Programme participation depends on school attendance, and the most at-risk children, such as girls in rural areas and street children who do not attend school, are not reached.
- n School feeding programmes often depend on foreign food assistance, making it difficult for governments to continue the programmes with their own resources.

## Food-for-work programmes

In food-for-work programmes, food is given as full or part payment to unskilled or semi-skilled workers who are employed in public work schemes such as building roads, schools or drainage canals, forestation and land reclamation. In general, food-for-work programmes are self-targeting in nature since they target beneficiaries by means of selecting food rations with a market value low enough to induce only those unable to find more remunerative employment to participate. The principal aim of these programmes is to provide income in the form of food. Community-based targeting also occurs when certain households are assigned to the public works programme by community leaders. This form of targeting may also lead to work sharing, whereby a large number of households are assigned to participate, somewhat independently of relative need. (This is demonstrated in the Ethiopia case study in the Annex.) However, when there is a homogeneous degree of poverty in target areas, geographic targeting may be sufficient to ensure a low leakage rate.

Food-for-work programmes can be effective in reaching the poorest members of the community and in contributing to national development projects. There also tends to be less corruption with these than with programmes that provide cash. In food-deficit areas, when basic food commodities are provided through external food aid the local consumer prices of those commodities are kept low, so there are secondary benefits for the non-participating population. In food-surplus areas, basic food prices remain unchanged, or may rise slightly if foods for the programme are acquired from local producers.

Food-for-work programmes rarely include explicit nutritional goals among their objectives, because they are seen basically as an employment and income-generating scheme. It is assumed, however, that the nutritional status of the participants and their households will improve as a result of greater access to food, while the infrastructure that is constructed should contribute to reducing food and nutritional insecurity in the long term. However, employment in these programmes is temporary and insecure, and is often not sufficient to reduce permanently the food and nutritional insecurity of the participating population.

Labour-intensive projects with a food-for-work component generally win government support, yet the outcome of these projects can sometimes be poor and ineffective, primarily owing to the lack of technical support, tools, proper supervision and cash. Community participation and mobilization during the planning, implementation and infrastructure maintenance phases are essential for the success of these programmes.

The following are some of the special concerns related to food-for-work programmes:

- n In many instances, the infrastructure and other assets constructed through food-for-work programmes are poorly maintained.
- n The programmes do not necessarily improve the nutritional status of those family members at greatest risk of malnutrition.
- n They may result in population movements as people relocate in search of work, placing pressures on social infrastructure and the environment in areas where the food-for-work programme is operating.

## **Nutrition education and consumer awareness programmes**

Nutrition education is used by many countries to improve the nutritional well-being of target groups in a population. The general objective of these programmes is to enable the target population to make the best use of existing food resources and to become familiar with food-based dietary guidelines for good health and nutrition. The ultimate goal of nutrition education programmes is to bring about appropriate and meaningful changes in knowledge, attitudes and dietary practices that result in improved nutritional status among the target population. Closely related to this are consumers' rights to have full knowledge about the nutritional qualities of the foods they consume and to be protected

from inaccurate commercial information with respect to those qualities. Consumers should have the knowledge, as well as the means, to make informed food choices and to denounce any false claims by the commercial food sector. Thus, consumers should be partners in consumer protection programmes.

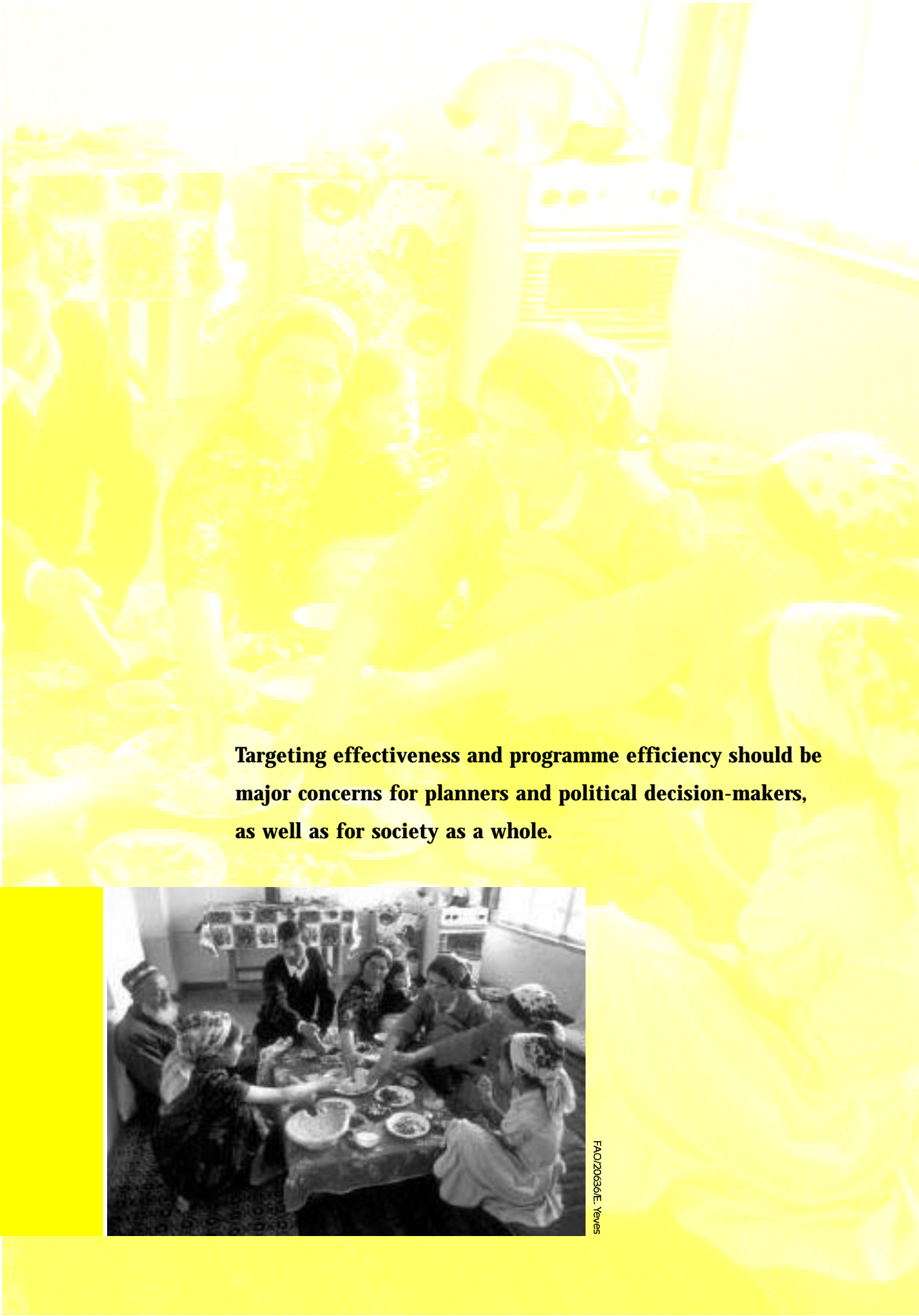
The effectiveness of these programmes depends mainly on how well they are planned, implemented, monitored and evaluated. The social and cultural relevance of educational messages is critical, as are the methods by which the messages are delivered. Equally important is an adequately trained programme staff who are socially and culturally sensitive. The programme design must reflect a basic understanding of the social, economic and cultural determinants of current food, health and nutritional behaviour.

Education programmes also require the commitment of political leaders and policy-makers, especially in the planning and launching stages of a nutrition education programme that is part of a national food and nutrition policy and action plan. They require the support of social, economic and organizational policies and strategies, as well as the involvement of all relevant sectors and actors in related disciplines, from the local to the national level.

The effectiveness of nutrition education programmes can be substantially increased by applying social marketing methodologies. Social marketing approaches contribute to establishing a programme that is based on an assessment of specific consumer needs and desires, rather than applying the same technology or solution universally. This contributes to better-designed and more effective programmes.

The following are some of the special concerns related to nutrition education and consumer awareness programmes:

- n Special attention should be given to those populations experiencing rapid dietary and lifestyle changes (such as growing urban populations).
- n Improving the teaching and training capabilities of nutrition educators through the application of innovative, participatory and client-oriented methods is critical for improving nutrition education and communication.
- n Messages need to take into account the different cultures, literacy levels and languages of target populations.
- n There is a need for close coordination so that the messages provided by nutrition information and education are all similar and do not conflict with one another.



**Targeting effectiveness and programme efficiency should be major concerns for planners and political decision-makers, as well as for society as a whole.**



FAO/20636/E, Yebes

## Assessing and Monitoring Targeting Effectiveness

### Understanding targeting effectiveness

Assessing and monitoring are essentially learning processes. In this case, they can help planners, programme staff and communities to understand better the strength and weakness of an adopted targeting scheme, and to assess the need for changes. Poor targeting may result in worse programme outcomes than no targeting at all. So, improvement in targeting effectiveness should be a constant concern of the staff of targeted food and nutrition programmes. Targeting effectiveness relates directly to the programme's outcomes and impact and the degree to which it achieves programme objectives and goals. The assessment of targeting effectiveness should provide clear guidance on what complementary actions must be implemented to improve or change the targeting scheme. Monitoring is essentially the continuous assessment of the targeting effectiveness, as determinants of this effectiveness may change over time. In addition, depending on programme exit rules, programme participants will change over time, while eligibility criteria may also change, for example, in response to changes in programme resources. The need to monitor the targeting effectiveness of a programme is clearly demonstrated by the case of the national school feeding programme in Chile, where it led to changes in eligibility criteria and targeting methods (see the Chile case study in the Annex).

Assessment of targeting effectiveness is most important when the programme is administratively targeted, or when administrative targeting is part of a multistage targeting scheme. In self-targeting schemes, it is possible to assess effectiveness

by sampling participation and target group status among those who have access to the benefits. However, it is much more difficult to assess how many members of the target group, or what proportion of the target group, do not have access to the programme benefits.

How is the effectiveness of a targeting scheme assessed? First of all, it is important to define what is meant by targeting effectiveness. Essentially, targeting effectiveness is a measure of how well a particular targeting scheme includes all members of a specified target group, and excludes members of the non-target group from participating, in a targeted programme. Key parameters in this assessment are inclusion and exclusion errors; and undercoverage and leakage rates. Each will be discussed in turn (see also the Box on Targeting terms in Chapter 1).

For example, a particular programme aims to reduce food insecurity in a specific population and targets food-insecure households in that population. A simple table can be constructed (see below), dividing the population into food-insecure and food-secure households and participating and non-participating households. A perfect targeting scheme results in all food-insecure households participating in the programme, and all food-secure households being excluded. For example, if there are 600 households classified as food-insecure, and 400 as food-secure, under a perfect targeting scheme  $A = 600$ , and  $D = 400$ . Food-insecure households that do not participate are referred to as exclusion errors (B), and food-secure households that do participate are referred to as inclusion errors (D). The most ineffective targeting scheme results in  $B = 600$  and  $C = 400$ , that is none of the food-insecure households participate and all the households that do participate are food-secure. Normally, targeting schemes are not perfect, and there will be some degree of inclusion and exclusion errors. The smaller these are, the more effective the targeting scheme is.

	FOOD-INSECURE	FOOD-SECURE	TOTAL
Participating	A	C	A + C
Non-participating	B	D	B + D
Total	A + B	C + D	

The following are other related parameters of targeting effectiveness:

- n Undercoverage rates refer to the proportion of the food-insecure households that are excluded from participation, i.e.  $B/A + B$ .
- n Leakage rates refer to the proportion of participating households that are food-secure, i.e.  $C/A + C$ .
- n In a perfect targeting scheme, the undercoverage and leakage rates are zero (because the inclusion and exclusion errors are zero).
- n In the most ineffective scheme they are equal to one.

Another related concept of targeting effectiveness that is often applied in assessments is the proportion of the target population that participates ( $A/A + B$ ) minus the proportion of participating households that do not belong to the target group ( $C/A + C$ ). In a perfect targeting scheme the result will be 1, while with targeting that is 100 percent wrong it will be  $-1$ . A result of zero means that there is a complete absence of targeting and households are admitted randomly to programme participation. Thus, the objective is to bring the result as close to 1 as possible. If the result of this calculation does not lie somewhere between 0 and 1, explicit targeting is not worthwhile.

## Correcting targeting errors

When assessing and monitoring targeting effectiveness, it is important to understand what factors may produce targeting errors, so that corrective measures can be taken by programme planners and staff.

Leakage rates may be high because eligibility and/or exit rules are poorly defined and/or incorrectly applied, or not enforced by programme staff. If programme eligibility is established on the basis of a means test, candidate participants may purposely underreport their assets in order to qualify for participation; and programme participants who, according to the rules, should exit from the programme may do the same.

Corrective measures that lower leakage rates include:

- n ensuring that eligibility and exit rules are clearly defined, and are known, understood and agreed to by the whole population and by the programme staff;
- n supervising the programme staff's application of the rules, and raising their awareness and motivation to apply the rules correctly;

- n verifying and monitoring the eligibility status of participants through home visits or other means, when feasible.

Undercoverage rates may be high for a number of reasons. Target households may be unaware or poorly informed about their eligibility status, and thus many will not be reached by the programme. The programme design may not have anticipated adequately the constraints to participation faced by target households, such as lack of time and transportation. Target households assess the programme benefits to them in relation to their participation costs (including time costs), and those that assess the net benefits to be small or that place little value on them may elect not to participate. If programme eligibility is established by a means test involving documentation, prospective participants may not be able to produce the documentation required or, for other reasons, they may elect not to submit such documentation or information. Furthermore, if programme participation involves any kind of social stigma, target households may elect not to participate.

Lowering high undercoverage rates normally also requires one or more corrective actions, depending on what has caused the high rate. Such measures include:

- n providing more effective outreach to target group members to inform them about their eligibility and the programme benefits, possibly involving the whole community;
- n reassessing the programme design to see what changes should be introduced in order to address participants' constraints more adequately and to raise the value to the participants of the programme benefits, applying participatory assessment methods;
- n working closely with candidate participants to establish their eligibility by way of a means test, assuring complete confidentiality of the information provided;
- n working closely with community leaders and the community as a whole, to make them members of the stakeholder group and to remove social stigmas associated with participation in the programme.

When both leakage and undercoverage rates are high, programme staff may have to prioritize the implementation of corrective actions. If the major concern is with the efficiency of programme resource allocations, or if the programme is faced with budget cuts, the priority is likely to be to lower the leakage rate and improve programme efficiency (cost-effectiveness). If the main concern is improving the programme's impact on the target population and increasing its social benefits, corrective measures to lower the undercoverage rates should be the highest priority.



## Improving targeting cost-effectiveness

SITUATION	IMPROVING TARGETING COST-EFFECTIVENESS
<b>High malnutrition prevalence, minimal logistical infrastructure</b>	<ul style="list-style-type: none"> <li>n Rigorous targeting is inappropriate.</li> <li>n Gradual expansion of the programmes through intensive supervision and careful budgeting is suggested.</li> <li>n The expert opinion of knowledgeable officials may be used in the selection of small areas.</li> <li>n The data collection cost for targeting should be kept minimal.</li> <li>n Selective targeting based on programme objectives can be considered over time.</li> </ul> <p>Any geographic expansion should only take place when the logistical problems of the area already covered are solved.</p>
<b>High malnutrition prevalence, substantial logistical infrastructure</b>	<ul style="list-style-type: none"> <li>n Rigorous targeting is not necessary.</li> <li>n The judgement of medical personnel is considered the best source of data available.</li> <li>n Empowerment of on-site infrastructure in potential areas should be considered as part of the intervention.</li> <li>n In the urban poverty zone, where strong on-site infrastructure is also available, a stricter targeting scheme (e.g. based on anthropometric criteria) is more effective.</li> </ul>
<b>High-low malnutrition prevalence, minimal logistical infrastructure</b>	<ul style="list-style-type: none"> <li>n A highly targeted scheme is advised.</li> <li>n Preliminary efforts to gather data (or use existing data) for targeting are essential (e.g. conducting an anthropometric survey to identify the high prevalence of malnutrition in areas throughout the programme region).</li> <li>n In high prevalence areas, focusing on strict targeting is unnecessary.</li> <li>n Slow-paced geographic expansion based on developing adequate infrastructure should be emphasized.</li> </ul>
<b>High-low malnutrition prevalence, substantial logistical infrastructure</b>	<ul style="list-style-type: none"> <li>n Emphasis should be given to identifying the high prevalence zones.</li> <li>n If the high prevalence areas are located far from the programme centre, supporting the on-site infrastructure in those areas should be considered as part of the programme.</li> <li>n Rapid geographic expansion of the programme, stressing strict targeting schemes, is advised when high prevalent zones are distributed uniformly across the entire programme region.</li> </ul> <p>Where strong on-site infrastructure exists, highly targeted service delivery systems using various targeting indicators through these on-site organizations are recommended.</p>



FAO/17891A - Conti

**The urban poor often lack the physical and economic access to good quality, safe and nutritionally adequate food supplies.**

The assessment and monitoring of targeting effectiveness is a critical component in measuring the programme's impact and cost-effectiveness. Low leakage and under-coverage rates mean that the programme's social benefits to a given population group are maximized, subject to the programme budget. Participation levels can vary among participating households or individuals, and this variation will also influence the programme's overall impact. Eligible members of the target group may participate with varying degrees of intensity in the programme, or participate in only a subset of the programme's components. To assess targeting effectiveness, some

minimum level of participation, as well as a minimum

intensity of participation, should be defined, perhaps by applying indicators such as number of feeding days per beneficiary per month. This may also be useful in the evaluation of the programme's impact.


Providing a breakdown of participation by age, sex or other criteria is also useful in evaluating the programme's impact. Well-targeted programmes may offer services to fairly diverse groups. In many food security and nutrition programmes, benefits may be targeted to pregnant and lactating women and to children under five years of age. While aggregate coverage rates may be fairly high, some particularly vulnerable sub-groups, such as children under two years of age, may be under-represented among actual participants. This suggests that outreach to increase the participation of particular sub-groups would significantly strengthen the programme's long-term impact.

## Participatory evaluation of targeting effectiveness: an example from Ethiopia

In 1994, an evaluation of a World Food Programme food-for-work activity used a participatory vulnerability ranking exercise to evaluate targeting effectiveness. The evaluation involved a three-stage process with discussions among two separate sets of participants in each community involved. The first stage comprised discussions with a group of local community-level officials. During the discussions, households were simply ranked into four categories of vulnerability according to the resources they controlled, including household labour availability and their ownership of land, draft oxen and other livestock.

During the second phase of the evaluation, a group of household members from the most vulnerable group in the community were asked to categorize households further using similar criteria, but giving more attention to labour fitness and access to emergency support from relatives and friends. Respondents were also asked to identify who had participated in the food-for-work activity.

In the third phase, the names of participants provided by respondents were compared with payment lists kept by the project to produce a final list of beneficiaries. Using the list of names and the final vulnerability rankings produced during discussions with community members, the project incidence was calculated as the percentage of households participating in food-for-work in each of the four vulnerability categories.



**Supplementary feeding programmes, food fortification, supplementation, school feeding, food-for-work and nutrition education and consumer awareness programmes are the types of targeted programmes most commonly used to improve nutrition.**



FAO/18120/M. Sisti

## Planning and Designing for a Targeting Scheme

### Designing a targeting scheme

The broad goals and more specific operational objectives of a food and nutrition intervention drive the planning and development process. Selection of a targeting scheme is an integral part of the programme planning phase, thereby linking targeting directly to the programme's operational objectives and goals. The latter will normally spell out who are to be the target group(s), such as children under five years of age; pregnant and/or lactating mothers; internally displaced populations in specific areas; food-insecure households in urban, low-income neighbourhoods; or the landless rural poor. The target groups have to be defined in operational ways that allow them to be identified and located.

In practice, important political, cultural, logistic, technical and/or financial constraints often impose limitations on which targeting scheme can be selected and implemented. A targeting scheme cannot be designed on theoretical grounds alone, and the scheme that best supports the specific objectives of a given programme may, in practice, be very difficult or costly to implement.

The success of a targeted programme, as indeed of any programme, depends on detailed planning, efficient management and continuous monitoring and evaluation, with the results of the latter feeding back into improved planning and implementation of the programme. A number of important targeted nutrition programmes have been criticized for poor planning and weak management, or ineffectual monitoring and evaluation. Another important element for success is

to establish a solid stakeholder group of partner institutions, and to involve the targeted communities (individuals, households) directly and early on in the planning (needs assessment) and programme management process.

The phase-out stage of a targeted programme should be foreseen and planned during the programme development stage. The phasing out of a programme presumably enters into effect when its objectives and goals have been achieved. However, there may be other reasons for phasing out a programme regardless of whether its objectives and goals have been achieved, such as funding limitations. For example, donors often prefer to spell out from the beginning when their commitments will finish. It is important that the phasing out of a targeted nutrition programme be a gradual process, especially when the programme makes a substantial contribution to the welfare and food intake of the poor. The financial, institutional, political and social sustainability of the programme and its effects also need to be carefully considered in the development and implementation processes. In other words, programme activities have to be planned and designed to strengthen the sustainability of programme effects after the programme has been formally phased out.

When designing a targeting scheme to meet the programme's given objectives, three fundamental characteristics of the targeting process must be considered and defined at the very beginning:

- 1 Who designs, implements and monitors the targeting scheme?** Normally the programme planners will design the targeting scheme during the development of the programme proposal. Thus, in the case of a public programme, staff and decision-makers of the government institution(s) responsible for the programme will also design the targeting scheme. Donors may participate in this process as part of programme proposal review and discussion. If the programme is to be implemented in partnership with non-governmental organizations (NGOs), they will also participate in the programme development process, and thus in designing the targeting scheme. In a community-based food or nutrition programme, community leaders and local political decision-makers may participate in deciding who in the community is to receive the programme goods and/or services. Programme staff implement the targeting scheme along with other programme activities. Programme supervisory personnel should monitor the implementation of the scheme to ensure that targeting criteria are correctly applied and, when necessary, corrective measures are designed and implemented.

**2 Who is to be targeted?** The intended target population(s) is (are) defined by the programme objectives. However, it needs to be decided how the target population will be identified and how eligibility, as well as exit, criteria will be established. The eligibility and exit criteria need to be well understood by both the target and the non-target populations, as well as the programme staff, and to be correctly and consistently applied by the latter. Indicators for targeting need to be identified and, if possible, validated before they are applied. Such indicators may include either a certain age group, sex, nutritional and health status, socio-economic basis, geographic location, group suffering from disaster or specific micronutrient deficiency, or the entire population. The selected criteria should be well understood and correctly applied by programme staff or those responsible for this task.

**3 How will targeting be done?** Alternative targeting schemes may need to be considered, and the most appropriate scheme selected by weighing the technical, social, financial and institutional factors associated with each of the schemes under consideration. This is likely to involve consideration of trade-offs among these factors. Will targeting be done on the basis of nutrition-related indicators, such as anthropometric measurements or laboratory indices, or non-nutritional indicators, such as geographic, market-based or self-targeting schemes? The selected criteria should be well understood and correctly applied by programme staff.

The collection and analysis of data are important in the detailed planning of a targeting scheme. These activities also provide a baseline for future evaluation. The kind of assessment needed will depend on the type of programme to be implemented and its primary objectives. Generally, most food and nutrition programme planning will need to assess:

- n the target population: who they are, where they are and how many of them there are, based on food and nutrition insecurity conditions and vulnerability, prevalence of malnutrition, etc.;
- n the characteristics of the target group, particularly in relation to the programme's specific objectives (nutritional status, socio-economic conditions, etc.);
- n the existing and potentially available resources – personnel, materials, logistic and financial support – of the programme and the sources of these inputs (provincial and national government funds; NGOs and voluntary agencies; foreign bilateral and international organizations);

- n the opportunity costs of participation for beneficiaries relative to the value of foods and/or services provided by the programme;
- n the local nutrition- and food-related activities that can support or complement the targeting scheme;
- n the possible screening methods and service delivery mechanisms which, among other effects, will influence the programme participation rates;
- n in the case of self-targeting, the quality grading of foods that is needed to ensure a high participation rate by the intended target group.

**An important concept in the assessment of targeting schemes is that any strategy will exclude some needy individuals while including others who would do well even without the programme's support. Many targeting strategies that have a small exclusion error have a large inclusion error, and vice versa. Thus, a trade-off between these two errors often has to be considered. Normally, when the main concern is reducing food and nutrition insecurity, minimizing undercoverage rates is more important than lowering leakage rates. If a limited programme budget is the main concern, reducing leakage should be given greater weight.**

## Assessing resources

Perhaps the most important step in the selection process of a targeting strategy is to assess the costs and marginal benefits of different targeting schemes. Most types of programme lend themselves to only two or three possible schemes. Food subsidy programmes can be designed with self-targeting or market-based targeting, alone or in combination with geographic targeting. Food distribution programmes can be designed to target administratively on the basis of community or, again, by a combination in which communities are selected administratively and then establish their own criteria for selecting households.

Assessing the total costs of each targeting scheme is particularly difficult. Apart from direct costs such as staff time and transport, there are also important non-monetary costs, especially the loss of benefits associated with denying services to an individual who may need them, or the loss of community support due to the denial of services to some of its members who the community feels, justifiably or not, should be included. The marginal costs of targeting need to be weighed against the cost savings, giving full consideration to the programme



objectives. The relevant question to ask is: At the same level of achievement of programme objectives, what are the net cost savings from targeting and from each of the different targeting schemes? This involves consideration of inclusion and exclusion errors, or undercoverage and leakage rates. Large inclusion and exclusion errors raise the cost of targeting, but may still result in lower programme costs compared with those for non-targeted programmes with the same objectives. As already discussed, different targeted food and nutrition programmes involve different risks with respect to the leakage of benefits directed to the target population.

## Cost comparisons across targeting schemes

The direct targeting costs consist of administrative and information costs. The administrative costs, in turn, comprise the costs associated with designing, testing, implementing (i.e. screening and monitoring programme participants), supervising (i.e. applying eligibility rules correctly) and evaluating the cost-effectiveness of the scheme. Information costs are associated with generating and analysing the data and information that are necessary when establishing criteria to define, and indicators to identify and characterize, the target group(s). Such data and information can also serve other purposes, such as programme monitoring and evaluation, and their costs should thus not necessarily all be assigned to targeting. Direct targeting costs vary according to the targeting scheme of the programme as follows:

**Administratively targeted programmes** require the collection of accurate information to determine eligibility and are generally considered to involve high information-gathering costs, as well as high administrative costs.

**Self-targeting mechanisms**, which attempt to direct programme benefits to a specific target population (such as those willing to supply labour in food-for-work projects), generally incur lower information costs than administrative targeting does because no eligibility criteria have to be established and eligibility does not need to be screened and monitored. However, detailed information and data are needed in order to understand market behaviour among the low-income or vulnerable group(s). Administrative costs are relatively low, consisting mainly of monitoring programme coverage.

**Market-based targeting** requires substantial information about demand and supply patterns and their determinants, as well as about changes over time to mar -

ket conditions. It therefore has moderately high information costs, while administrative costs are incurred by the monitoring of subsidized food commodities in order to ensure that price reductions are passed on to consumers in the target groups.

**Community-based targeting** involves all community members, or only community leaders, in deciding how to allocate programme food or services within the community, relying on their empirical knowledge of the food insecurity or vulnerability of households or individuals. Direct information costs to the programme are, therefore, negligible and are borne by the community in the form of time costs. Administrative costs are also negligible.

**Geographic and regional targeting**, which are forms of administrative targeting, incurs information costs that are likely to be moderate because of their reliance on existing secondary data sources, complemented by periodic rapid assessments. Administrative costs consist mostly of monitoring the allocation of programme resources in accordance with established regional priorities.

**Household/individual targeting**, which is another form of administrative targeting, has high information and administration costs that are similar to those for administrative targeting.



**Target populations are often small children, women, internally displaced persons in specific areas, food insecure households in urban areas and the landless rural poor.**

## Selecting indicators for targeting

When choosing specific targeting indicators, the challenge is to maximize the usefulness and quality of the information for decision-making, while taking full consideration of the costs of collecting, processing and analysing that information. In deciding which indicator(s) to use for targeting, it should be kept in mind that the information provided by the indicator(s) should be:

- 1 relevant and valid;
- 2 accurate and reliable;
- 3 timely;
- 4 accessible;
- 5 low-cost.

### RELEVANCE AND VALIDITY

The targeting indicator must be relevant to the programme objective(s). If the programme objective is to prevent malnutrition, the targeting indicator must be capable of identifying people or populations who are at risk of malnutrition.

**The importance of the relevance and validity of an indicator can be illustrated in the case of Guatemala, where an NGO providing food assistance used weight-for-height to screen for potential beneficiaries. The very small number of children identified by this screening test prompted the NGO to conclude that malnutrition was not a problem in Guatemala and that food aid should be discontinued. However, while the level of wasting was very low, Guatemala, at that time, had the highest rates of stunting in all of Latin America.**

The selection of the indicator should also depend on its intended use – for either individual-level screening or the targeting of populations at some aggregate level. For example, mid-upper arm circumference (MUAC) is useful for community nutritional status screening purposes, but should not be used as a substitute for weighing when individual children are being selected for a supplementary feeding programme.

Linking the definition of a targeting indicator to broad programme objectives is not always simple. For example, there are usually multiple indicators for any given food security concept:

- n Food security is often measured by a variety of indicators, including levels of food production, income, total household expenditure, food expenditure, share of total expenditure that is spent on food, total calorie consumption and measures of nutritional status.
- n Poverty status can be based on poverty lines, which are defined in either relative or absolute terms, on the basis of per capita income required to meet the minimum food basket (minimum food energy intakes) or the per capita cost of obtaining a broader set of goods and services that constitute basic needs. In addition, poverty status can be reflected by household income that falls below a given poverty line, or by how far below the poverty line household income is.

Nutritional status can be reflected by a variety of biochemical, clinical, anthropometric and dietary indicators. A variety of anthropometric indicators can be used for targeting purposes, depending on whether the objective is related to identifying stunted (height-to-age), wasted (weight-to-height) or underweight (weight-to-age) children, for example.

A targeting indicator must also be valid in different social, cultural and ecological settings. The determinants of food insecurity in one setting may be different from those in another. For example, in agro-ecological regions of Eritrea where there are predominantly pastoralist farmers, herd size is a good indicator of the risk of food insecurity, while in other regions of predominantly crop-based farming, this is not the case. Applying a monetary income measure in both urban and rural settings may grossly overestimate the food insecurity risks in rural areas. This means that targeting indicators may have to be determined locally, thereby losing (some) comparability across regions and making it more difficult to allocate resources by region at the central level.

## ACCURACY AND RELIABILITY

The information provided by a targeting indicator is used to make decisions, and the more accurate it is (all things being equal), the better the decisions based on that information. This means that accuracy is important, which means in turn that the indicator must be subject to a minimum of systematic measurement errors. As a targeting indicator is likely to be applied repeatedly, particularly when the determinants of food insecurity are changing rapidly, the indicator must be

reliable (subject to a minimum of random measurement errors). Monitoring the effectiveness of a targeting scheme with unreliable indicators will provide erroneous results and lead to misleading conclusions.

## **TIMELINESS**

It is important that the indicator be able to provide information in a timely manner. Complex targeting indicators that require time-consuming data collection, processing and analysis may delay programme implementation. Under rapidly changing conditions that involve rapid population movements, such as in a natural disaster or a complex emergency, a targeting indicator or combination of indicators must be capable of identifying rapidly where the at-risk populations are, and what their immediate needs are.

## **ACCESSIBILITY**

The information provided by the indicator must be accessible and be open to interpretation by many different decision-makers and actors with different social and cultural backgrounds, professional orientations and levels of schooling. Highly complex indicators may make sense only to professionals with an adequate technical background, and this is not conducive to broader participation in targeting decision-making. This argues for simple, common-sense indicators, as long as these are appropriate. It also argues for broad participation in assessing alternative targeting indicators.

## **COST OF DATA COLLECTION, PROCESSING AND ANALYSIS**

The cost of data collection is a common concern in targeting. Cost is typically related to the time, personnel and logistics costs associated with data collection, processing and analysis. These costs may vary significantly according to the indicator and data collection method used. Often, the use of low-cost indicators may imply difficult trade-offs in terms of their relevance or credibility. For example, low-cost indicators of income derived simply from heads' of household lump sum estimates of total household income are not likely to be as accurate as those calculated by aggregating all of the individual incomes reported by each household member.

There are normally a variety of ways of measuring an indicator. Estimates of crop production levels can be based directly on farmers' recall of production or on more complex crop estimation through field measurements. The method used

to collect information when constructing a targeting indicator will influence the costs. Data collected during household visits by programme staff are likely to be more expensive than information obtained through on-site data collection efforts at programme facilities. Such costs are part of the cost of programme targeting and, to make targeting as efficient as possible, should be kept to a minimum.

**In general, when screening individuals or estimating the proportion of the needy in a population for regional targeting purposes, it is necessary to classify individuals according to their nutritional status on the basis of a cut-off value. Typically, population-specific cut-off points need to be defined for targeting purposes in each case where they are to be used.**

**The choice of cut-off point may have important implications for the interpretation of an indicator and the understanding of food security conditions. While food-insecure households are often defined as those consuming less than 80 percent of the recommended minimum calorie intake, a reduction in the percentage of households consuming less than 70 percent of that recommended minimum may indicate important advances in reducing extreme food insecurity that would not be fully captured by an assessment based on the 80 percent cut-off. In Guatemala, the cut-off point below which children showed a greater response to supplementation was actually much higher than the standard -2 SD below the median of the NCHS levels. Had the traditional cut-off been used, only a small proportion of children would have been considered at-risk and eligible for supplementation, and a large proportion of needy children would have been missed by the test.**

**In an operational context, the choice of the optimal indicator is often best made at a fixed cut-off defined on the basis of programme objectives and resource availability. Even where technically defined cut-offs exist for certain benchmark indicators, programme managers may wish to target a particular subsegment of the population which is the most food-insecure or malnourished, or the most likely to benefit from an intervention. This is likely to be the case in programmes where the budget is insufficient to address the entire population suffering from food insecurity or malnutrition. Where programme resources are limited, the best cut-off for targeting is one that will deliver exactly the number of participants for which programme resources are available. In other words, the indicator cut-off used in the evaluation of proxies would be selected at a value that corresponds to the percentage of the population that can be served given available programme resources.**



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**Eligibility and exit criteria need to be well-understood by recipients and programme staff, and consistently applied.**

## Using proxy indicators

### WHAT IS A PROXY INDICATOR?

Proxy indicators are alternatives for indicators that more directly reflect the phenomenon or characteristic to be measured. Proxy indicators can serve as targeting indicators. A proxy indicator does not provide a perfectly equivalent substitute to the more direct indicator, and proxy indicators are applied when they are simple and less costly to construct than direct indicators, while still providing useful information. When direct indicators tend to include large measurement errors, such as household income measurement or daily food intake by means of recall methodologies, proxy indicators may be just as valid and capable of discriminating well between the food- or nutrition-insecure and the food- or nutrition-secure. In other cases, the application of a proxy indicator for targeting could increase inclusion and/or exclusion errors. This risk needs to be weighed against the additional targeting costs associated with applying a direct indicator instead of a proxy indicator.

Food frequency questionnaires can be used to obtain information on micronutrient intake indirectly, through a measure of diet diversity. Such information is much less costly to obtain than that obtained through quantitative dietary recall methods or through biochemical measures of micronutrient status.

One major disadvantage of the use of proxy indicators is that they are typically context-specific. The wide variation of social contexts in which food security and nutrition activities are undertaken will often lead to wide differences in the choice of the appropriate proxy indicator which is most closely associated with the direct indicator.



### Proxy indicators of household income include:

- gender or age of the head of household;
- presence of working-age individuals within the household (dependency ratio);
- ethnic background, social class or caste;
- size of family dwelling or number of rooms;
- type of construction materials used for the roof, floor and walls of the dwelling;
- ownership of key assets such as land, livestock and luxury goods;
- geographic location of the household.

## TESTING PROXY INDICATORS

In order to decide whether a proxy indicator is valid, it must be tested to establish its degree of association with more direct indicators in each setting, using either quantitative or qualitative methods.

**Quantitative methods.** Data from household sample surveys typically make it possible to test various proxy measures against an indicator that is more directly relevant to the programme objective – the so-called “benchmark” indicator. For example, in order to select households with chronic food insecurity, measures such as per capita food expenditure or daily energy intake (or percentage of daily energy requirements consumed) may be appropriate as benchmark indicators. Similarly, if the targeting objective is to identify malnourished children under five years of age, a range of proxies might be tested against a benchmark measure that has been derived from means anthropometry.

The choice of proxy indicator should be determined both by the strength of its statistical association with a benchmark indicator and by weighing the cost savings associated with using that proxy indicator instead of a more direct measure. Among the proxy indicators that have a statistically significant association with the benchmark indicator, the optimal proxy indicator for targeting will be the one that minimizes the undercoverage and leakage rates, subject to given targeting costs, including those for information collection and analysis.

**Qualitative methods.** Qualitative methods can also be used to identify proxy indicators for targeting, particularly when data collection and analysis costs must be kept low or the technical capacity of the programme staff does not allow for complex statistical data analysis. Even if the proxy identified through qualitative methods shows only a weak statistical association with the benchmark indicator, some level of targeting is likely to result in better programme outcomes than random selection of beneficiaries and allocation of programme benefits.



## Using gender of household head as a proxy for poverty status

A study in Peru examined the validity of using the gender of household head, as commonly defined, as a reliable way of identifying poor households. Using reported data from a national survey, 17 percent of all households in Peru were classified as woman-headed. However, woman-headed households were not significantly over-represented among the poorest households, accounting for only 20 percent of the poorest segment (quintile) of the population. Targeting the poorest quintile of the population solely on the basis of woman-headship would, therefore, result in a significant level of undercoverage, equivalent to 80 percent of the households in the poorest segment of the population. It would also result in significant leakage, since 76 percent of woman-headed households are not included in the poorest segment of the population.

The study notes that headship as reported by respondents fails to account for important elements of the typical headship concept, which include identifying the individual with the most regular presence in the household, the individual with overriding authority in household decision-making, or the individual primarily responsible for the economic support of the household. To be relevant for policy-making, the definition of headship must be relevant to the policy issue at hand. In the case of poverty targeting, the concept of headship should be defined to identify the primary source of economic support of the household.

Instead of using reported headship, researchers constructed an indicator of “working headship” based on the total proportion of hours worked in the labour market and on the production of home goods (not including housework). Woman-headship defined in this way is more likely to identify poor households, given a range of evidence from across developing countries:

- a** women’s work outside the home tends to increase with the level of poverty;
- b** in the poorest households, women tend to work longer hours than men;
- c** in poorer countries, women spend more time in income-generating activities than in countries where poverty is less of a problem.

Under the definition of working headship, 29 percent of households in Peru were determined to be woman-headed. However, among the poorest quintile of the population, 34 percent were woman-headed. In such cases, the prospect of targeting on the basis of working headship, while better than relying on reported headship, is still likely to result in high levels of undercoverage and leakage. The study concludes that, for targeting purposes, more direct indicators of poverty status may be more useful than reliance solely on gender of household head.

## Selecting eligibility criteria

Eligibility criteria are the most important element in establishing and implementing a targeting scheme, and should be directly related to the programme's objectives. For example, the relevant criteria for iron deficiency anaemia prevention and control programmes will be different from those for the prevention of protein-energy malnutrition (PEM) among children. The selected criteria should be well understood by both programme staff and programme beneficiaries, and should be applied correctly by programme staff.

A well-defined programme objective will enable the identification of appropriate eligibility criteria through addressing the specified and intermediate outcomes of a programme rather than the broad and final outcomes. For example, while the broad goal of an activity may be the reduction of child malnutrition, its specific objective could be to improve mothers' nutritional practices, such as starting to use weaning foods at the age of six months, through nutrition education. Similarly, while the overall objective of a microcredit project might be to reduce poverty, being poor might not be the best, or at least the only, eligibility criterion. Appropriate additional criteria may also include the household or individual characteristics of a specific segment of the poor population that completely lacks access to credit, but for whom some access to credit might result in an increase in income.

Objective and operationally defined criteria, expressed as indicators, are needed in order to identify the target population clearly. For example, when improved food security is the objective of a food and nutrition programme, the term "food security" includes different aspects related to food availability, access and utilization, thus the term itself is not specific enough to be operationally useful for establishing relevant targeting criteria, or to identify food-insecure population groups. In this case, identifying increased food production as one of the programme's specific objectives, for example, and then selecting the segment of the population directly involved in food production is more appropriate. Similarly, specific objectives related to improving food access, such as physical access to markets or greater purchasing power, may aid the development of relevant and objective targeting criteria.

If the programme objective is to prevent malnutrition, the relevant targeting population should include all those who are at risk of future malnutrition while, if the objective is to improve the nutritional status of malnourished children, current nutritional status is the appropriate selection criterion.

## Identifying and screening programme beneficiaries

When targeting indicators are being used, the target population has to be identified. Once this has been done, members of the identified target population have to be screened or certified for participation, and their eligibility for participation must be monitored over time in programmes that are administratively targeted. The use of targeting indicators can help to rank the population according to relative levels of need; it can separate the needy from the non-needy by applying a determined cut-off point as a criterion; and it can measure individuals' severity of need in such terms as the degree to which each needy individual falls below a certain cut-off point. For example, several poverty measures provide information not only on the percentage of the population to fall below a given poverty line, but also on how the poor population is distributed among the different degrees of poverty (distances from the poverty line). Another example is the classification of stunted children under five years of age as being "slightly" (between -1 and -2 SD), "moderately" (-2 to -3 SD) or "severely" (more than -3 SD) stunted.

At the household or individual level, three basic issues need to be addressed when implementing targeting:

- 1 how to determine eligibility for programme participation;
- 2 how frequently to obtain information in order to monitor the eligibility of programme participants;
- 3 how to allocate programme resources to eligible individuals or households on the basis of that screening information.

### ELIGIBILITY DETERMINATION

Potential participants can be screened either by **passive identification**, in which potential beneficiaries must present themselves at programme facilities to have their eligibility evaluated, or **active identification**, in which programme staff seek out potential beneficiaries through home visits during which they obtain the necessary information for establishing eligibility.

**Passive identification** is a relatively low-cost method of obtaining eligibility information, since it demands less staff time and requires few logistics. However, some self-selection bias may be involved because passive identification requires that candidates are willing to bear the time costs of travel to pro-

programme facilities and of waiting for evaluation and services. More than one visit may be required if candidates do not bring the required documentation to establish eligibility the first time, and this increases the time costs to them. Passive identification methods may also limit the ability of programme staff to verify household socio-economic information that can otherwise be observed through home visits. Passive identification is quite common in clinic-based growth monitoring.

**Active identification** eliminates the problem of self-selection in the gathering of targeting information, although it often involves significant additional cost in terms of staff time, transportation and data processing. Active identification requires near-census coverage of the population defined as being at risk across the entire intended programme area; it is not possible to use sampling methods, since doing so would exclude some of the eligible households or individuals from the screening process. This is where community-based targeting in combination with administrative targeting may provide a cost advantage, because community informants can help identify the households or individuals most likely to be eligible for participation. Such an approach may eliminate the need for a community census. Active identification methods also provide an opportunity for programme staff to verify information on socio-economic status subjectively, based on their direct observations of living conditions. Such methods are more appropriate when the programme area is relatively small, when the at-risk population is more concentrated geographically and/or when programme benefits are sufficiently large to warrant higher data collection costs.

## FREQUENCY OF INFORMATION GATHERING FOR ELIGIBILITY MONITORING

The choice of screening frequency can have important implications for targeting efficiency and programme impact. Much depends on how volatile or temporary the food and nutrition insecurity situation addressed by the programme is, and how resilient or able programme participants are to (re-)achieve food or nutrition security conditions, with or without programme assistance. For example, in a natural disaster many households may be affected, but some will be able to restore their previous food and nutrition security conditions rapidly, others more slowly and others not at all. When chronic or structural factors produce food and nutrition insecurity, changes will be slow. In the case of natural disaster, infrequent screening is likely to lead to large inclusion and, possibly, exclusion errors

over time; while, in the case of chronic or structural factors, less frequent screening is probably sufficient. Frequent screening and eligibility monitoring raise information costs, and these have to be balanced against programme costs resulting from inclusion errors and social costs caused by exclusion errors. Eligibility screening includes the establishment of clear exit rules, perhaps with the sustainability of programme effects in mind.

## HOW TO ALLOCATE PROGRAMME RESOURCES

The identification of eligible households or individuals through screening is closely linked to the allocation of programme food and/or services to participants. Screening information will, however, seldom lend itself to the direct determination of the proper level of benefits to be delivered to each individual or household. Some type of technical or administrative allocation rule is required in order to link screening information to the actual distribution of goods and services. Such allocation may be fixed on a per capita basis, such as an appropriate size or composition of food rations, or it may be graduated across broad categories that define various levels of need.

The method and frequency of screening may also influence the allocation of programme benefits. When information is collected on an on-going basis, such as through clinic-based growth monitoring, benefits are often provided to eligible participants on a first-come-first-served basis. When eligibility information is collected on a more periodic basis, additional rules to establish priorities in the distribution of programme benefits can be implemented.

**In the Jamaica food stamp programme, social workers conduct home visits in bi-monthly cycles, collecting information from all eligible households during the first month of the cycle and distributing food stamps during the second. The ordered collection of information prior to the distribution of benefits provides some scope for prioritization in the event of resources proving insufficient to the needs of all those who meet the eligibility criteria. In India's ICDS Programme, which provides supplementary rations on the basis of on-going, clinic-based growth monitoring information, rations are distributed on a first-come-first-served basis. In this case, prioritization occurs only informally, when the supplies at centres are limited and staff reserve rations for only the most severe cases of malnutrition.**

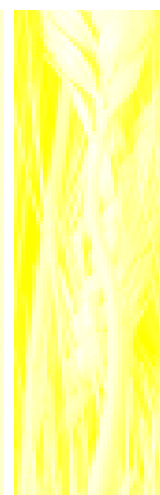


TABLE 1

Options for obtaining information through household- or individual-level screening

OPTION	ADVANTAGES	DISADVANTAGES
<b>PASSIVE IDENTIFICATION</b>		
Collecting information on-site, with no verification	Simple and low-cost	Undercoverage may be high Prone to inaccuracies and false responses by applicants
Collecting information on-site, with direct measurement by programme staff	More accurate and still low-cost Objective verification and opportunity for immediate intervention	Undercoverage may be high Not always appropriate
Collecting information on-site, with required verifying documents	More accurate and still low-cost Verification burden on applicant, with minimal additional staff time	Undercoverage may be high Not always appropriate
<b>ACTIVE IDENTIFICATION</b>		
Household visits for screening	Allows subjective verification of living standards and other information	High-cost
Outreach to identify those not participating	Improves accuracy of targeting Lowers undercoverage rate Improves aggregate social benefit of activity	High-cost

## Level screening

COST COMPONENTS		APPROPRIATE CIRCUMSTANCES
	Minimal staff time	One-time, small benefits that need immediate decisions, such as hospital fee waivers Interviewer is based within a community and knows applicants well enough to detect false responses
	Minimal staff time Cost of equipment and staff training	Multiple screening of small to moderate benefits Limited to activities where the biophysical attributes of candidates are used as targeting criteria
	Minimal staff time Information system to track verification documents	Large benefit Applicant pool literate and part of formal sector likely to have access to verification documents
	Significant staff time Transport and logistics costs	On-going or large benefit Programme staff do not know applicants No possibility of written verification
	Significant staff time Additional budgetary resources to provide benefits to eligible candidates	Adequate budget Likely candidates clustered geographically or readily identifiable through their use of specific social services



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**The success of a targeted programme depends on detailed planning, efficient management and continuous monitoring and evaluation, with the results feeding back into improved planning and implementation of the programme.**



## Targeting Practices

Once a rationale for targeting has been defined for a food or nutrition programme, the selection of a targeting scheme becomes part of the programme design and development process. A programme's specific objectives are particularly relevant to targeting. The at-risk population, and thus the target group, and the programme objectives are identified through a problem analysis, a vulnerability assessment and a poverty profile which are usually the first steps in the programme design process. Within this context, it is important to make a distinction between food- or nutritionally insecure individuals or households, and individuals or households that are vulnerable to (or at risk of) food and nutritional insecurity (see the Box on Targeting terms in Chapter 1).

It should be remembered that there are no simple rules for selecting an appropriate targeting method. The wide variation of social contexts in which different activities are undertaken will often lead to wide differences in the final choice of targeting method. For example, the determinants of malnutrition vary greatly from place to place and across populations. As a result, the best indicators for predicting the risk of future malnutrition for screening purposes are also likely to vary.

In addition, selection of the best targeting strategy depends on the type of programme. For example, a programme involving on-site feeding could take advantage of the gathering of beneficiaries to carry out a continuous screening programme, such as anthropometric screening that calls for monthly weighing. Such screening in a take-home feeding programme would require the additional

effort of bringing a weighing scale to each participant and, thus, would have to rely on less frequent weighing.

Generally, targeting strategies must be consistent with the existing level of infrastructure (logistical, human resources, institutional) and the area, and must be conceived within the political, financial, cultural and technical constraints of the programme.

Any intervention may be targeted by using multiple methods and multiple selection criteria. Combined methods are often used to strengthen overall targeting efficiency. Geographic targeting may be combined with community, household or individual targeting mechanisms. For example, emergency relief food is often targeted first on a geographic basis, according to the general severity of the crisis in different regions, and then through household screening criteria that rely on community-based channels to allocate relief to specific households (see the Ethiopia case study in the Annex.)

Food and nutrition programmes can be targeted through various schemes. Essentially, programmes are either **administratively targeted** or **self-targeting**. Administrative targeting involves the selection of specific regions, areas or communities (**geographic targeting**), or of specific households or individuals. The latter may be done by programme planners and staff, or by communities (**community-based targeting**). Self-targeting does not involve the selection of programme participants, but instead relies on programme incentives to induce maximum participation by members of a target group. When programme incentives are introduced through changes in market forces, they are referred to as **market-based targeting**.

Targeting can also be a multi-stage process. For example, certain regions may be targeted first because the food or nutrition problem is deemed to be most severe there, perhaps resulting from a natural disaster. Next, within each selected region, communities that meet certain criteria may be selected, such as communities with a high percentage of woman-headed households or communities with a high proportion of internally displaced households. After that, specific households and/or individuals in the selected communities who meet certain eligibility criteria may be targeted. The targeting mechanism is the application of a set of rules through which it is decided whom to include and whom to exclude. The different targeting mechanisms are explained in greater detail in the following sections.

## Administrative targeting

In an administratively targeted scheme, decisions on the eligibility of individuals or groups (including regions) are determined by programme staff on the basis of whether or not candidates meet defined eligibility criteria. These are based on one or more indicators that have been previously defined for the purpose of targeting. Administrative targeting may also be based on a so-called “means test”, i.e. in order to qualify for participation in the programme, the household or individual must not have the means, or a minimum set of assets, to obtain an adequate level of food intake (this can be decided in terms of, for example, per capita income, amount of land under cultivation or herd size). Means tests may be established on the basis of targeting indicators, but such tests are usually more costly to apply and administer. Indicator-based targeting usually involves the collection and analysis of data on those targeting indicators that are thought to be the most objective and representative of the defined selection criteria. The criteria must be defined and measured consistently for each candidate individual, household or group of individuals or households.

Most forms of targeting include an administrative element in the definition of programme areas, the definition of targeting criteria or the definition of target groups. Each form of administrative targeting may be used alone or in conjunction with other methods of targeting. For example, the selection of different markets for market-based interventions or of different communities for self-targeting public works activities represent forms of administrative targeting.

The first step in the development of an administrative targeting methodology is assessment of the various levels of administration and decision-making that are necessary to implement a programme, and of the information available on which to base decisions for targeting at each level. In many cases, programme resources will be managed initially at the central level and allocated incrementally to lower levels of administrative decision-making, until they finally reach the beneficiary population.

**The application of administrative targeting schemes may become complicated in countries where there is no clearly articulated national food and nutrition policy and where different levels of administrative decision-making (e.g. national-, regional- and local-level) may lead to different sets of eligibility criteria at each region or locality. Locally determined eligibility criteria may have greater validity than uniform criteria that are nationally applied.**



Once the administrative structure and decision-making needs have been defined at each level, administrative targeting requires the following additional tasks:

- n definition of eligibility criteria at each level of administrative decision-making;
- n identification of the indicators that best express those criteria;
- n development of data collection or screening methods that assist in the identification of beneficiary households or individuals, based on accurate and efficient targeting criteria;
- n definition of exit criteria to determine when beneficiaries graduate from the particular intervention;
- n definition of resource allocation rules for the programme at each level of decision-making, on the basis of screening outcomes.

### Advantages

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- 1 Because it relies on the use of objective indicators, administrative targeting is considered to be a fairly unbiased, impartial tool for determining eligibility which is applicable in a fairly standardized way across a variety of different populations in different locations. Thus, it may make programme management at the national level easier.

### Disadvantages

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- 1 The eligibility criteria and targeting indicators are defined and assessed by **outsiders**, typically those working for government or non-governmental agencies. As outsiders, programme staff may have limited access to information regarding the intended target population and limited understanding of the primary issues of concern within participating communities. Decisions concerning the definition of targeting criteria and the application of related targeting indicators may be subject to biases in the social or cultural perceptions of staff who do not have a clear insight into local conditions.
- 2 The administrative costs associated with identifying beneficiaries, screening programme applicants, monitoring eligibility, preventing participation by the non-eligible and correctly applying exit criteria are high. The use of sampling methods to reduce the cost of individual screening is generally not appropriate, since it excludes potential beneficiaries and may lead to high exclusion errors in programme targeting.
- 3 The use of a standardized method for targeting across all populations is not always appropriate. The determinants of deprivation may vary significantly

from one community to another or across socio-economic groups; for example, there are often differences in the determinants of poverty among farmers and among pastoralists. These different contexts may imply that very different indicators are necessary to capture a relevant target group. There are also likely to be differences in the level of income that defines poverty across communities (e.g. urban compared with rural), suggesting that different targeting criteria be defined for each setting.

- 4 Poorly defined, understood or applied eligibility criteria, perhaps resulting from inadequately measured and analysed targeting indicators, may undermine the effectiveness of an administrative targeting method.
- 5 There is the potential for corruption because a small number of programme staff has control over the allocation of programme resources and there may be non-transparent administrative procedures. Administratively targeted schemes generally require systems that do not merely establish eligibility but also monitor, confirm, enforce and appeal eligibility decisions.

**Information costs depend largely on the deployment of programme staff and infrastructure in relation to the location of the beneficiary population, as well as on the information collecting mechanisms used. When staff are located close to the intended target population, such as when clinic or school staff collect targeting information, data collection costs may be marginal. Similarly, when the service delivery mode requires candidate participants to present themselves at a central location to apply for benefits (e.g. an MCH centre), data collection costs may again be low, although this system can also lead to a large exclusion error in targeting if no additional efforts are made to locate eligible households or individuals. In contrast, where programme staff have limited and non-constant access to the intended target population and must incur substantial time and transportation costs to collect targeting information, administrative targeting is likely to be costly.**

## Community-based targeting

Community-based targeting schemes depend on decision-making structures at the community level to allocate programme goods and/or services effectively according to the criteria defined in the programme objectives. In some cases, the communities themselves may contribute to defining these objectives through a participatory decision-making process. In other cases, such as in emergency

feeding activities, the objectives may be more self-evident and universally applicable. As communities can interpret criteria differently, leading to differences in the allocation of relief food supplies, it is important to ensure that community members understand clearly the programme objectives, and the basis on which relief supplies are allocated, prior to programme implementation.

Effective community-based targeting requires preliminary efforts in the following areas:

- n **Assessment of community decision-making structures** to address the following questions:
  - i Do effective decision-making structures exist within every community in the programme area? Are these structures representative or autocratic?
  - i What is the nature of participation in community-level decision-making by the general population, and can marginalized groups be effectively brought into the decision-making process?
  - i What are the sources of potential bias in the allocation of programme benefits among the community's most needy? Sources of bias may include male dominance, ethnic influence, existing political and/or economic power structures or outright corruption.
- n What are the potential differences in the understanding of programme objectives that might lead to biases in the allocation of benefits across communities?
  - i What is the local interpretation of the programme's selection criteria?
  - i How are disputes typically resolved within participating communities?

Assessment serves to examine what the likely outcomes will be from a community-based targeting scheme, in terms of who in the community will be reached by the programme and the extent to which the programme can be expected to deal effectively with food and nutrition problems in the community. The assessment may also help to determine whether the programme needs to include specific activities to strengthen the decision-making structures in the community.

- n **The analysis of existing community support mechanisms** in order to understand the potential effectiveness of community-based targeting methods. Support mechanisms may be based on cultural or religious customs, family relationships, or ethnic or tribal groups. They are likely to be indicative of

the criteria on which private resource transfers are made, the extent to which marginalized groups have access to support, and other factors that might influence the outcomes of community-based targeting efforts. Rather than set explicit priorities, communities often choose to allocate programme resources evenly across all households, relying on existing support mechanisms to redistribute benefits to the most needy. An understanding of traditional support mechanisms provides a strong indication of whether or not any further redistribution would benefit the intended target population.

When programme resources are clearly insufficient to provide minimal benefits to all households or individuals in the community, implicit or explicit selection criteria are applied by community leaders or others to the selected households or individuals who are most in need. Empirical evidence of what such criteria typically are point to a ranking based on an indication of economic or social vulnerability, which is in turn based on indicators such as households headed by the elderly, women, ill or incapacitated persons; households with a large number of small children; and households with no land to cultivate or with no or very few animals.

- n **Public participation and education** to ensure local ownership of programme objectives and targeting criteria through the promotion of direct and broad-based participation in decision-making regarding programme implementation in the community, and through ensuring that potential beneficiaries are informed of the composition of benefits to be distributed, as well as the options for recourse when disputes arise in the allocation of those benefits.

The frequent and participatory auditing of community-based targeting outcomes is very important to ensure that targeting errors are identified and corrected. Such auditing can serve as a monitoring tool and can help communities to review and adjust local targeting practices.

## Advantages

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- 1 In community-based targeting, benefits from the insights are obtained by community **insiders** – members of the community, or their representatives, who actually face a particular food security or nutrition challenge and who are in the best position to define the nature of that challenge, as well as to define the objective targeting criteria and target population for an intervention designed to address specific problems.
- 2 Targeting costs are basically limited to the time spent by the community itself to reach and monitor programme allocation decisions.

- 3 Targeting criteria are more likely to be appropriate to local conditions, and are easily understood and accepted by the general population.
- 4 Community-based targeting is more likely to result in a greater understanding of the objectives of the targeted programme, to confer a greater sense of ownership among the community's population and programme participants and, potentially, to increase grassroots empowerment in general.

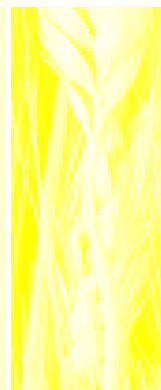
### Disadvantages

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- 1 Because communities typically develop their own criteria independent of one another, community-based targeting may result in differences in targeting outcomes across different locations, which may make programme management and administration at the central level more difficult. It is difficult to carry out targeting consistently when the programme covers a large area. Across locations and communities, differences in cultural norms, standards of living, livelihood sources, ethnic composition and the effectiveness of local political institutions can lead to inconsistencies in the allocation of benefits.
- 2 For many nutrition-related problems, in which the definition of need is largely a technical one, reliance on community-based targeting methods alone may not always be appropriate.
- 3 When resource allocation decisions are being made, it is difficult to determine who effectively represents, and who best represents, the community. It is also difficult to ensure that disadvantaged groups such as women or ethnic minorities are given an equal voice in the decisions. There is therefore the danger that the most needy are not adequately reached by the programme.
- 4 Reaching consensus between community leaders and community members, and between community members and leaders and outside agencies, of what constitutes a fair and equitable distribution of programme goods and/or services may be an arduous and time-consuming process.
- 5 Social pressures, or the need of local political leaders to strengthen their power base, may bias the allocation decisions to the detriment of those who are relatively powerless and should benefit most from the programme goods and/or services.



**Community-based targeting is often influenced by a few local leaders and administrators, and this can result in the subjective selection of beneficiaries that is not based on a needs assessment. In local settings, people often follow their leaders and do not have a real space in which to express their honest opinions. At the same time, programme staff cannot approach a community without directly involving its leaders and political decision-makers. Their best way of dealing with this situation is to promote and facilitate the creation of a more participatory decision-making environment, starting perhaps with a participatory needs assessment in the community.**



## Self-targeting

The central aspect of self-targeting mechanisms is that the decision of individuals or households on whether or not to participate in a given programme is the main determinant of who receives programme benefits. In other words, self-targeting occurs when benefits are available to all, but programme incentives are set in such a way that the non-needy elect not to participate. While other targeted programmes require social workers or other human resources to establish eligibility criteria, screen and monitor eligibility, with self-targeting the decision to participate is made by the households or individuals themselves.

Universal access to programme benefits in the form of goods, services or employment is necessary in a purely self-targeting scheme. If programme benefits need to be rationed because of resource constraints, self-targeting may take place in combination with some form of administrative or geographic targeting. For example, if a food-for-work programme intends to generate non-farm income for women in a drought-affected region, a combination of geographic targeting, administrative targeting (only women are eligible) and self-targeting (food ration levels are set at such levels that only the neediest women are likely to decide to participate) will be involved.

Three main elements influence an individual's decision to participate in a given activity:

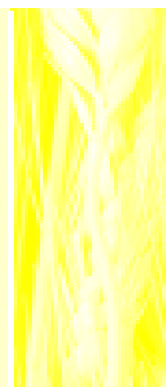
- 1 the costs of participation;
- 2 the quantity and quality of the goods and/or services to be obtained by participating, and the value that the participants place on those benefits;
- 3 the social stigma associated with participation (which may also be considered as part of the participation costs).

A key to successful self-targeting is the clear definition of the target population during the programme development stage, such that the offered benefits are likely to be demanded only by that target population at a price that only the target population is willing to pay.

Effective self-targeting of food programmes requires detailed information about market conditions with regard to supplies and prices of specific foods, and the income and the consumption patterns of different segments of the population (i.e. price elasticity of demand from various income groups). The key is to segment the population in order to identify major differences in the preferences and market behaviour of various groups, such that differences in the type, quality and cost of the food item(s) offered lead to self-selection by the intended target population. For example, when there is a reduction in the price of a food product that most consumers consider to be of inferior quality and/or low social value, the demand for that food is likely to increase substantially more for poorer groups than for higher-income groups. The use of a quality differentiation device (based on market mechanisms) to promote self-targeting schemes has been successful in many developing countries, especially in food subsidy programmes. However, a number of important considerations must be taken into account if self-targeting is to work (see the Tunisia case study in the *Annex*

The design of a self-targeting food subsidy programme that is based on quality grading involves examining household expenditure data to determine whether there are significant differences in consumption patterns across income groups, especially with regard to basic food commodities. For example, yellow maize flour is considered to be inferior by consumers in Central America compared with white maize flour. Yellow maize flour (which is of higher nutritional value) is consumed by the poor, and white maize flour by higher-income groups. Where the poor consume a different basket of goods from higher-income consumers, the price of one or all of the foods contained in that basket is to be subsidized. Quality grading can also be introduced through different packaging, colour coding and labelling, which provide the image of a superior food by giving it more attractive packaging without basically changing the food commodity itself. An important issue involved in self-targeting food programmes is the question of consumer acceptance. Care must be taken that, by making a food product unattractive to higher-income consumers, it does not also become unappealing to the poor.

**A good example of the importance of consumer acceptance occurred in Tunisia, where the introduction of a heavily-subsidized and less refined brown sugar was unsuccessful. Despite the fact that the new subsidized sugar was almost half the price of commonly used white sugar, it was not readily accepted by consumers at any income level, apparently because darker sugar was assumed to be “dirty”. The failure of this intervention was mainly associated with programme designers’ lack of prior understanding of consumer acceptance, and the absence of accompanying efforts to raise consumer awareness and provide nutrition education.**



Some examples of activities with built-in self-targeting mechanisms are:

- n price subsidies, especially of so-called inferior food commodities that only the poorest are likely to purchase;
- i food-for-work or cash-for-work programmes, which target benefits by setting food rations or wage rates that are low enough to induce only those unable to find more remunerative employment to participate;
- n public health and primary education services, which often self-target on the basis of the relatively poorer quality of services available in comparison with privately offered services.

The self-targeting that results in the last example is (or should be) unintentional, in the sense that efforts should always be geared towards improving public health and education services.

Food subsidies are one way of increasing the purchasing power of the poor and compensate for losses in real income caused by economic crisis, unemployment, income gaps or disparities, or wars. Subsidies serve as part of social safety-net measures. In several countries, such programmes have had a positive effect on household food security and nutrition, especially among urban populations. It has been reported in India and the Philippines that these programmes have reduced the prevalence of underweight children. Some food subsidy programmes based on foreign food aid have helped to offset the fiscal costs of food subsidies, and contributed to increased public investment in social services. Current economic crises are forcing many governments to look into the use of self-targeting for subsidy programmes as a means of reducing budgetary costs and finding more efficient ways of directing benefits to those most in need.

In practice, the development of self-targeting activities may also include dimensions of geographic targeting, by locating public works programmes in specific geographical areas or distributing subsidized food commodities through retail outlets in low-income neighbourhoods.

### Advantages

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- 1 The administrative costs of self-targeting are low, because these programmes rely primarily on the initiative of the potential beneficiaries themselves to gain access to food or services, and there is no need to screen and monitor the eligibility of programme participants.
- 2 It is relatively easy to implement, provided that enough information on the food consumption of low-income groups or on market wage structures is available.
- 3 In the case of food- or cash-for-work programmes, self-targeting reduces the perception that such programmes offer long-term employment prospects, as participants will leave the programme as soon as better employment opportunities present themselves.
- 4 Beneficiaries decide for themselves whether or not to participate, thus minimizing the opportunities for corruption to bias the distribution of programme resources.
- 5 The self-esteem and privacy of the target population are well maintained, as there is essentially no interaction between programme beneficiaries and programme staff.
- 6 Leakage through resale of the subsidized food is likely to be minimal since, when the subsidized food has been selected well, there is no demand for it among higher-income consumers.

### Disadvantages

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- 1 With self-targeting, it is difficult to know who really benefits from the food subsidy, and to what extent the food subsidy contributes to a reduction in overall food insecurity or to an improvement in nutritional status among low-income groups.
- 2 In the case of food- or cash-for-work programmes, the time cost involved is often a greater barrier to participation for the poor, who are less able to afford to lose productive time than the non-poor. In the case of food subsidies, there is presumably no marginal time cost involved.

- 3 The poor often face great difficulties of access, which may be an obstacle for participation, unless careful geographic targeting that takes full account of the access factor is involved.
- 4 Even when the needy do choose to participate, in self-targeting factors such as low-quality foods or services, or opportunity costs associated with programme participation, tend to reduce the net benefit of participation.
- 5 In the case of self-targeting through food subsidies, there is a need for constant monitoring of whether the subsidy is effectively passed on to the consumers by retailers. Information on the subsidy needs to be provided to consumers, and a complaint referral system should be put in place. Purchases of subsidized food commodities need to be monitored, as do the prices of substitute food commodities, so that the food subsidy can be adjusted to ensure continued consumption by low-income groups.
- 6 As with any subsidy programme, the fiscal costs of the subsidy may be substantial and may grow over time as a result of general price inflation. Subsidies also introduce distortions in the market and can lead to economic losses for domestic producers.

## Market-based targeting

Market-based targeting is very similar to self-targeting, as it depends on the choices of individuals to buy or sell goods or services in the market. The basis of market-based targeting is the supply-demand equation. The application of both market-based and self-targeting methods relies on the assumptions that:

- n programme goods and services have sufficient value to imply a significant change in the pattern of incentives and disincentives faced by potential beneficiaries;
- n in response to the revised incentives, there are also likely to be significant changes in behaviour, which will vary across different segments of the population;
- n the behavioural changes can be exploited in order to reach programme objectives more effectively and efficiently than other methods of targeting.

Market interventions may be oriented to influence market supplies of foods and services available for purchase; for example, through the local sale of grain from



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**Market-based interventions aim to increase the demand or supply of a particular food among the target population.**

reserves or the marketing of oral rehydration salts or locally produced weaning foods. These types of interventions may also address market **demand**, either directly through official market purchases of commodities to support local prices and the incomes of producers, or more indirectly through public education and social marketing intended to influence consumer preferences for key goods and services.

Market-based interventions may also choose to reach their objectives through price means, with the aim of increasing the demand or supply of a particular food or service among the target population. This can be done through price controls or price subsidies of key food commodities or services so that consumers choose to purchase more of a particular food or service. Nowadays, price controls are applied less and less frequently, while price subsidies (which are also less frequently applied in market-oriented economies), when applied to basic foods, closely resemble self-targeting mechanisms. Improving the productivity of domestic food producers and expanding commercial food imports are more sustainable ways of increasing domestic market supplies of food and decreasing domestic food prices.

A clear understanding of the different characteristics of a selected market, including its level of integration, is essential in determining the appropriate intervention, its probable effectiveness and coverage and the level of resources necessary to meet the stated objectives. For example, decisions on whether to employ cash-for-work or food-for-work as a means of transferring purchasing power to poor households depend critically on the level of market integration in the pro-

gramme area. When markets are well integrated and food supplies flow freely in response to changes in demand, the use of cash transfers is likely to minimize the distorting effects of food transfers on local market incentives. Similarly, when markets are well integrated, the price effects of a local food purchase activity may be diluted over a broader area, requiring larger purchases to bring about a given price change.

### Advantages

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- 1 It is relatively easy to implement market-based targeting, although when there are resource constraints the best way to intervene in the market needs to be identified, involving either the implementation of a single programme or, more likely, a combination of programmes.
- 2 The margin for corruption is fairly limited.
- 3 Similar to self-targeting, market-based targeting requires no programme staff or expenditure for individual eligibility screening and monitoring.

### Disadvantages

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- 1 In general, market-based targeting is unlikely to be effective without significant investments in information gathering and analysis regarding the determinants of market demand and supply of specific food commodities, prices and income elasticities.
- 2 Because differences in market preferences across groups are often small, the impact of activities targeted through market mechanisms may not be sufficiently discriminating and significant benefits may leak to the less needy. Activities such as livestock price supports, for example, tend to help pastoralists in proportion to the size of their herds, so that larger owners benefit more than smaller ones. Without some effort to differentiate groups of pastoralists on the basis of need and to identify market mechanisms that can exploit their distinct patterns of market behaviour, the impact of this kind of market-based intervention may be directly contrary to that intended.
- 3 There is a significant chance of substantial leakage resulting from poor recognition of the target population or failure to monitor its behaviour responses over time.
- 4 Market-based targeting may rely on a range of administrative targeting decisions. Particular population groups are often singled out by administrative means to be the focus of an activity that is targeted through market mechanisms. The geographic scope of the market selected for intervention will

necessarily have an influence on the population that is ultimately targeted by that activity.

## Geographic and regional targeting

Geographic or regional targeting can be accomplished through a variety of methods. The simplest form is based directly on local estimates of need for demand-driven activities, where resources are allocated to various regions in proportion to stated levels of need. However, local needs are likely to be overestimated, as part of the inter-regional bargaining process for programme resources. A more complicated but increasingly common form of regional targeting involves poverty, food insecurity and vulnerability assessment and mapping systems, which use rapid rural appraisal, participatory rural appraisal or rapid food and livelihood security assessment methodologies. The construction of a poverty map based on a composite poverty index is another method (see the geographic targeting element of the national school feeding programme in the Costa Rica case study in the Annex). Such efforts utilize a range of information sources and indicators. They usually involve the development of a multivariate index or statistical model aimed at capturing the basic dimensions of the stated targeting criteria by using different socio-economic indicators such as literacy rate, female education rate, unemployment rate, level of income, agricultural failure, population growth rate and prevalence of malnutrition.

Early warning information systems contribute information and data on emerging food crises in specific locations, based on agroclimatic conditions, food crop estimates and food market conditions as indicated by local food prices. Regional food balance estimates, particularly when they are calculated on a monthly basis, may also provide early warning information regarding food shortages. Structural vulnerability assessments and detailed food and livelihood insecurity analyses provide information and data for the design and implementation of local development programmes.



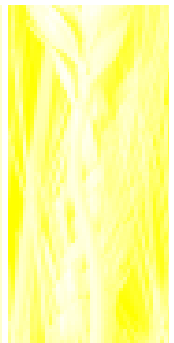
**In some instances, targeting broadly defined geographic areas has been found to offer only minimal gains in programme efficiency compared with cases where no targeting is used. Studies using household survey data indicate that the use of smaller geographic units in geographic targeting can reduce programme leakage and improve the coverage of the target population as the unit targeted becomes smaller.**



Although regional targeting is sometimes carried out, the methodologies for doing so efficiently and effectively are not always well developed (see some of the country case studies in the Annex). For example, it is often assumed that regional disparities in food security and other welfare measures can readily be understood and identified through the informed judgement of local informants and decision-makers. However, biases in the perception of the determinants of food insecurity have led to serious inefficiencies in geographic targeting. To avoid such biases, there is a clear need for a more focused understanding of regional food security and nutrition conditions. This is particularly true when emergency food relief is being allocated among the various regions affected by a natural or human-incurred disaster (see the Ethiopia case study in the Annex).

In fact, nutrition programmes may be geographically targeted, but the selection of service area boundaries may not always be based on nutritional criteria. Non-nutritional concerns frequently dominate when broad service areas (regions, provinces, states, etc.) are designated, and nutritional concerns may govern the selection of specific villages, households and individuals within the broadly defined service area.

**In Burkina Faso, food aid that was targeted on the basis of the regions' different agricultural potentials resulted in the distribution of large amounts of food aid resources to relatively better-off households. In fact, because households in areas of low agricultural potential had developed diversified income strategies, their access to food was less severely affected by adverse agroclimatic conditions than that of households in areas of higher agricultural potential which were more dependent on agriculture as their main source of income and food.**



### Advantages


- 1 Geographic and regional targeting can usually be updated on a relatively infrequent basis, primarily because they typically rely on existing census data, secondary data collected annually for various economic and social sectors, or periodic sample surveys or rapid appraisals.
- 2 They may be relatively low-cost and require the effort of a fairly small number of analysts at the central or regional level.
- 3 The cost savings obtained from regional targeting can increase significantly, thus enabling more efficient and effective coverage of the finely specified geographic areas.

- 4 The political costs of targeting can be minimized by focusing on small geographic areas. Since the constituencies of most political leaders are defined, at least in part, on a geographic basis, the targeting of small geographic units increases the likelihood that local leaders will have some constituents with a significant interest in a given local activity.
- 5 Local-level information obtained as part of the geographic targeting process can also support a more decentralized decision-making and planning process. This will allow the development of policies and programmes that are more finely tuned to local conditions.

### Disadvantages

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- 1 In practice, the targeting of highly decentralized administrative units or areas is often difficult, since the majority of targeting data are typically available and valid only for larger geographic units. In addition, in most developing countries, secondary data such as those on crop production are normally available only for a small number of fairly large regions. For primary data generated through surveys, limitations in sampling methods prevent the reliable estimation of targeting indicators at higher levels of disaggregation.
- 2 Some form of explicit allocation rules are required for more effective targeting; for example, allocating resources across regions based on the predicted proportions of levels of poverty or malnutrition prevalence. Regional targeting methods are often based on an index, which provides only a ranking of conditions across locations and does not account for absolute levels of need within each location.



**In most circumstances, small area estimation techniques have been shown to produce statistically reliable estimates of variables for small geographic units. While already used frequently in the United States and other developed countries, small area estimation methods are now being applied with greater frequency in developing countries as well. By providing statistically rigorous estimates of targeting indicators at the local level, these methods can substantially improve the efficiency gains from regional targeting.**

## Geographic targeting for drought relief in Ethiopia

In Ethiopia, a map showing chronically vulnerable and food-insecure areas has been constructed on the basis of a composite index of nine indicators. The map rates *weredas* (districts) as “very highly vulnerable”, “highly vulnerable”, “moderately vulnerable”, “slightly vulnerable” and “very slightly vulnerable”. No data are available for two departments (Afar and Somali). The indicators used as inputs to construct the index are:

- 1 staple crop production per capita;
- 2 livestock assets – animals per capita;
- 3 pasture quality and quantity;
- 4 road infrastructure/access;
- 5 food prices – the averages for maize and sorghum;
- 6 assessed emergency needs for recent years;
- 7 drought risk;
- 8 variability in staple crop production; and
- 9 probability of extreme weather shocks – shortage or excess of rains.

Each of the nine indicators was weighted, first individually by a number of collaborating agencies (Drought Prevention and Preparedness Commission [Early Warning Unit], Ministry of Agriculture, CIDA, SCF UK, the United States Agency for International Development [USAID], the European Community [EC] and the Vulnerability Analysis and Mapping Unit of the World Food Programme [VAM/WFP]) and then by applying an average group weight to each indicator. The index is currently being validated in the field in selected *weredas*.

## Household and individual targeting

The selection of target groups, households or individuals is often determined through a multistage targeting approach: first, an administrative and/or a geographic targeting approach leads to the selection of broad service areas (regions, groups of villages, provinces, states), then household- or individual-level eligibility criteria are applied. Target groups are selected through the use of specific criteria that discriminate the most needy from the less needy within a given community.



**Infants and young children are particularly at-risk of not getting the food they need for good health, growth and development.**

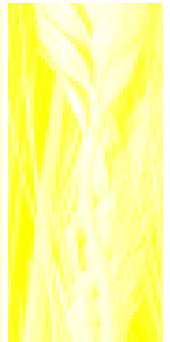
Choosing the most appropriate criteria is the key to minimizing inclusion and exclusion errors when potential beneficiaries at the household or individual level are being screened. Such criteria are based on the characteristics of households or individuals.

For nutrition programmes, households are often screened mainly on the basis of their size, their socio-economic status, the education level of the mother, child spacing within the family, and/or a history of poor nutrition for any family member. A household's socio-economic status can be a useful way of identifying malnourished individuals of those at high risk of malnourishment. Relevant socio-economic indicators include individuals living in families or households in which an infant has died, in which the mother is very young or relatively old, or in which there are many young children.

Targeting all the at-risk individuals in a nutrition programme area is basically done through such indicators as:

- n nutritional status, as assessed through anthropometric measurements and clinical or laboratory examinations (weight-for-age, height-for-age, weight-for-height, haemoglobin levels, urinary excretion of iodine, serum retinol levels);
- n physiological status (e.g. pregnant and/or lactating mothers);
- n health status (incidence of diarrhoeal disease, ARI);
- n age;
- n sex;
- n individual's socio-economic status.

**A cross-country study demonstrated that a number of simple indicators (each measured by only two or three different values) performed quite well, singly or in combination, in identifying households and children under five years of age at risk of food and nutritional insecurity. These indicators include: number of individual foods consumed; household size; household dependency ratio; number of rooms per person; incidence of illness; vaccination status; age at weaning of children under five years of age; and drinking-water and sanitation facilities.**



Any of these indicators can be applied, singly or in combination, when selecting potential recipients. The screening indicators most commonly used in individual targeting are age and anthropometric measurements. The concept of selecting individuals of a specific age cohort has been developed because certain age groups are at risk, or high-risk, of developing a state of malnutrition. Examples of such age groups and the particular risks that they face are osteoporosis in elderly women and malnutrition in small children of 6 to 36 months of age.

The most useful anthropometric indicators are:

- n birth weight;
- n weight-for-height;
- n height-for-age;
- n weight-for-age;
- n rate of weight gain;
- n mid-upper arm circumference (MUAC).

Weight-for-age and height-for-age are the most commonly used measures of malnutrition in children under five years of age, although in emergency situations weight-for-height or MUAC are often used to identify the most at-risk children. When severe protein malnutrition is a main problem, as when kwashiorkor develops, weight-for-age may provide a false assessment because of the presence of oedema, and thus there is the possibility of an exclusion error. The rationale for using weight gain criteria for targeting is that a child under five years of age who fails to gain weight over a period of time is at extreme risk of malnutrition. In areas where malnutrition is prevalent, weight gain criteria screen out, relatively effectively, the children aged under five years who have a normal nutritional status but miss a large proportion of those whose nutritional status would deteriorate over time in the absence of supplementary feeding. A combination of age and anthropometric values is also often applied to target more narrowly the children who are most at risk, say those in the 6 to 36 months age group.

Generally, nutritional criteria may be appropriate for targeting individuals, while socio-economic factors may prove more useful when selecting households for targeting.

### Advantages

- 1 Individual/household targeting improves the accuracy of targeting through reducing leakage.
- 2 It allows subjective verification of living standards and other information.
- 3 It lowers the undercoverage rate.
- 4 It improves the aggregate social benefit of an activity.
- 5 On-site information collection through direct measurement by trained programme staff provides accurate data and is a low-cost activity.
- 6 Individual/household targeting provides the opportunity for immediate intervention.

### Disadvantages

- 1 When the necessary information is lacking, the cost for data collection on indicators is high, especially for those related to nutritional status which require trained personnel, logistics and financial support if they are to provide reliable information on biochemical, clinical, anthropometric and/or dietary aspects.
- 2 Reported data/information collected on-site may lead to high undercoverage or self-selection biases in programme coverage. Depending on the information requested, it may be prone to inaccuracies as a result of purposeful false reporting by respondents, leading to large inclusion errors.

It is important not to exclude a particular programme objective or targeting criterion simply because it seems to have low cost-effectiveness. While screening each individual according to the given criteria may seem costly in the short term, the programme will benefit from such screening in the long term because it minimizes exclusion and inclusion errors.

## The use of anthropometric indicators in targeted group feeding programmes (GFPs)

### **ANTHROPOMETRIC INDICATORS ARE USED TO:**

- n assess the nutritional status of a population or group in order to decide whether to start a GFP, and where to locate it;
- n select individual recipients for feeding;
- n monitor the growth of individual recipients;
- n measure trends and changes in nutritional status of the population or recipient group, in order to decide whether to continue, expand or end the GFP.

### **SELECTED INDICATORS IN EMERGENCY SUPPLEMENTARY FEEDING PROGRAMMES**

Apply weight-for-height (or weight-for-length) in children. The priority is to select wasted children because they are at most risk of serious illness and death. If there are many children, a preliminary screening using mid-upper arm circumference (MUAC) can be used. The cut-off levels used to select children vary according to the resources available, but one recommendation (ACC/SCN, 1990b and UNICEF, 1986) is:

- n Supplementary rations to children whose weight-for-length is less than 80 percent or who have an MUAC of less than 13.5 cm.
- n Therapeutic feeding to children whose weight-for-length is less than 80 percent or who have an MUAC of less than 12.5 cm.

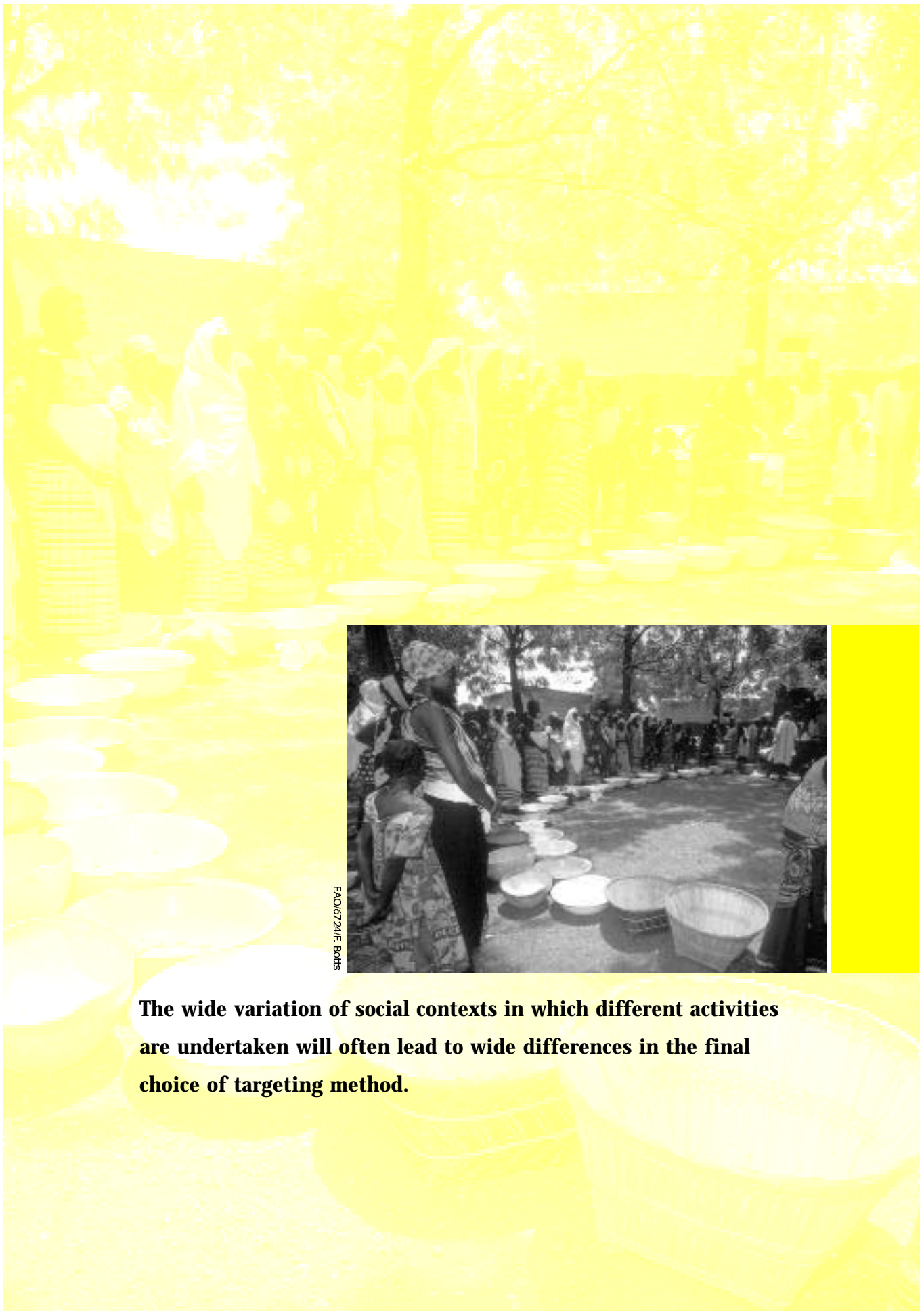
Children whose growth charts show poor weight gain can also be selected.

### **SELECTED INDICATORS IN NON-EMERGENCY SUPPLEMENTARY FEEDING PROGRAMMES**

Since there are likely to be fewer wasted children in non-emergency than in emergency situations, if resources permit, some stunted children can also be selected. The following indicators and cut-off levels are recommended:

- n For children aged up to two years: weight-for-height of less than 80 percent; height-for-age of less than 90 percent; poor weight gain.
- n For children aged two to five years: weight-for-height of less than 80 percent; poor weight gain (stunted children of this age are not a high priority group because stunting is likely to have occurred earlier and is not likely to be a result of current underfeeding).

If height cannot be measured, use weight-for-age of less than 80 percent or, for one- to five-year-olds only, MUAC of less than 13.5 cm.



**The wide variation of social contexts in which different activities are undertaken will often lead to wide differences in the final choice of targeting method.**



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## Foreword



**G**OOD NUTRITIONAL STATUS THAT LEADS TO AN OPTIMAL quality of life is basic to sustainable development. As we progress into the new millennium, it is imperative for all of us to consider the nutritional well-being of all populations as a matter of everyday concern and practice. Hunger and malnutrition in the world have a heavy impact on the populations of all nations and on their social and economic development. However, many development efforts do not take into consideration specific nutrition objectives. To improve the nutritional well-being of populations, and thus further the development of nations, these objectives need to be at the heart of national policies and programmes. Along with this, a human-centred approach to development must be emphasized, by upgrading the capacities of societies and creating a socio-economic environment that fosters human development.

Except in extreme circumstances, malnutrition affects specific groups of people rather than whole populations. Efforts to improve nutrition need, therefore, to concentrate on these groups. One very useful tool for focusing on the most needy or at-risk population groups is targeting. The effective targeting of nutrition improvement programmes can dramatically reduce hunger and malnutrition by directing efforts and resources to those most in need. At the same time, carefully designed and implemented targeting can help to ensure that precious resources are used cost-effectively.

The process of targeting can be complex, and decisions on whom to target and how to target are not always easy. Effective targeting requires many stages of decision-making during the design and implementation processes; each stage involves separate information gathering and analysis of the food and nutrition situation, the benefits to the population in terms of nutritional well-being, and



the financial costs associated with programming and implementation. It is important that those involved in the various aspects of targeting have a good understanding of the basic issues and options.

While a fair amount of literature on the subject of targeting already exists, it is quite dispersed, primarily academic in nature and, therefore, not readily accessible to many of the people who are most directly involved in targeting activities. Much of the existing literature provided the background for preparation of this publication and is listed in the Bibliography for readers who are interested in consulting other sources. With this publication, the FAO Food and Nutrition Division aims to fill the need for a practical, general reference guide for all those who need to make decisions about incorporating targeting into programmes to improve nutrition. The publication provides an introduction, from the nutrition perspective, to the basic issues, considerations and methods of targeting. In so doing, it indicates the main technical, social, economic and political issues involved in various targeting schemes and focuses on targeted food and nutrition programmes. It also provides a review of the types of targeted programmes most commonly used to improve nutrition and a selection of actual examples from around the world.



The publication has been developed by the Food and Nutrition Division with the contribution of a number of people working in nutrition around the world. Within FAO, Valeria Menza, Nutrition Officer in the Food and Nutrition Division, was responsible for undertaking this publication. From the nutrition community outside FAO, the Division gratefully acknowledges the contributions made by Mr Maarten Immink, Mr Samir Miladi, Ms Mahshid Ahrari, Dr Juliana Kain, Dr Ricardo Uauy and Professor Ruth Oniang'o, who generously shared their expertise and experience. Too numerous to mention individually are the workshop participants from ten countries in the Near East region who reviewed an early draft of the publication. We would like to express our appreciation and thanks for these contributions.

It is hoped that this publication will be a welcome addition to existing reference materials on the topic and that it will both encourage and facilitate the design and implementation of effective programmes to improve nutrition.

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**Director, Food and Nutrition Division**

# Introduction



**N**utritional well-being is fundamental to achievement of the full social, mental and physical potential of individuals and populations. When people are healthy and well nourished, they have the energy, creativity and security to live their daily lives with dignity and to contribute actively to their families, their communities and their countries.

Not everyone has access to the food they need to be well nourished, and this has led to large-scale hunger and malnutrition in the world. The significant improvements over the last 30 years in food supplies, nutrition, health and access to basic social services have, unfortunately, not benefited everyone equally. Approximately 800 million people today are chronically undernourished and unable to obtain sufficient food to meet even minimum energy needs. Many others are only marginally better off and constantly face the threat of food insecurity and malnutrition. According to recent FAO figures, 208 million people in India are undernourished, 140 million in China, 186 million in sub-Saharan Africa, 167 million in the rest of Asia and the Pacific, 55 million in Latin America and the Caribbean, and 36 million in the Near East and North Africa. Worldwide, approximately 200 million children under five years of age are stunted (of low height-for-age), and more than 160 million are severely underweight.

Malnutrition takes a heavy toll on nations, affecting the growth, health, productivity and quality of life of their peoples. Without adequate nutrition, children cannot grow and develop their potential to the fullest, and adults will experience great difficulty in maintaining or expanding theirs. Poor nutrition and health can result in



productivity and economic losses, as adults afflicted by nutritional and related disorders are unable to work; education losses, as children are too weakened or sickly to attend school or learn properly; health care costs for caring for those suffering from nutrition-related illnesses; and costs to society for caring for those who are disabled along with, in certain circumstances, their families.

Hung malnutrition and their devastating consequences can be dramatically reduced through well-conceived policies and carefully developed and implemented programmes. Achieving and maintaining optimal nutritional conditions in a population requires concerted efforts, careful planning and proper management of resources. A key element for success is to design food and nutrition programmes that are efficient and effective in reaching the most needy or at-risk population groups. To achieve this, a number of basic questions need to be answered:

- n Who are the food and nutritionally insecure? Who is vulnerable to food and nutritional insecurity?
- n Where are these groups located?
- n How can they best be identified and characterized?
- n What are the direct and indirect causes of their food and nutrition problems?
- n How can it be ensured that policies and programmes designed to reduce the food and nutritional insecurity of these population groups reach them in the most effective and efficient way?
- n How can efficient eligibility criteria for programme participation be established?
- n How can these policies and programmes best be monitored and evaluated?

These questions clearly relate to the targeting of food and nutrition policies and programmes, which is the topic of this publication. The targeting of programmes intended to improve nutrition can be a highly effective means of ensuring that precious resources are allocated to those most in need. The design of targeting procedures is a necessary step in the development of targeted policies and programmes. The question is not only **when** to target, but **how** and **whom** to target. A rationale for the need to target has to be developed first, because targeting



involves costs. Decisions concerning how to target a programme and whom to target are usually not easy. Criteria must be established to identify and select the target population, the specific causes for the food and nutrition problems in the target population have to be identified, and the resource constraints have to be properly assessed. Similarly, to ensure maximum effectiveness, the operational design of targeted programmes needs both to include clear and verifiable objectives and goals and to lay out steps related to programme implementation, monitoring and evaluation, as well as criteria for the phasing out of the programme. This publication is intended for all those who need to make decisions about incorporating targeting into food and nutrition programmes. It is meant to serve as an introduction, from the nutrition perspective, to the basic issues, considerations and methods of targeting. More a reference guide than a step-by-step manual, it provides a general introduction to the use, benefits and costs of targeting (Chapter 1); a description of the six primary targeting schemes and the major advantages and disadvantages of each (Chapter 2); a discussion of the main issues in the planning and design of a targeting scheme, including assessing costs and resources and selecting targeting criteria and indicators (Chapter 3); information on monitoring and evaluating the effectiveness of targeting in order to maximize programme impact (Chapter 4); a description of the types of targeted programmes most commonly used to improve nutrition, highlighting special concerns for each of these programmes (Chapter 5); and conclusions and suggestions for broad areas for action that will help to improve the targeting effectiveness of food and nutrition programmes (Chapter 6). Case studies providing actual examples of various targeted food and nutrition programmes that have been implemented around the world are provided in the Annex.

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**A well-selected and implemented targeting method will maximize the social returns from a food and nutrition programme by excluding non-needy individuals, while minimizing the cost by including only the most needy.**

# Targeting for Nutrition Improvement

## What is targeting?

Targeting is a method by which goods and/or services are delivered to a group of individuals or households that have specific characteristics. Thus, in programmes that aim to produce nutrition improvements, targeting means limiting the intervention to the selected groups that are deemed most in need of those improvements (such as children under five years of age, or pregnant and lactating mothers).

The process of targeting requires many stages of decision-making during the design and implementation of an effective food and nutrition activity. Each stage involves separate information gathering and analysis of the food and nutrition situation, the benefits to the population in terms of nutritional well-being, and the financial costs associated with programming and implementation. All of the following stages are necessary for a well-designed and well-targeted activity:

- 1 **assessment** of the extent and magnitude of the food and nutrition problems, and analysis of their causes in the general population;
- 2 **identification** of the population groups most at risk;
- 3 **prioritization** according to the severity of the problems, the population groups affected and/or the availability of resources;
- 4 **planning** and **development** of the programme;

- 5 **implementation** of the programme;
- 6 **monitoring** of the programme's effectiveness in reaching the target population, in order to decide on corrective measures to improve targeting effectiveness and programme efficiency;
- 7 **evaluation** of the programme's impact on the target population;
- 8 **phasing out** of the programme when its objectives and goals have been reached (or when the programme's budget is terminated).

Targeting means including some people as beneficiaries and excluding others. Programme targeting may not always be possible for political or social reasons: for example, in some Latin American countries (Costa Rica, Brazil), all school-children have the right to school feeding, regardless of whether they are at risk of undernutrition or not. In most settings, it is important that the targeting rationale and criteria for programme eligibility are well understood, not only by programme administrators and staff, but also by the whole population – both target and non-target groups. This strongly argues for full and effective participation by both groups in all phases of the process outlined above.

## What are the benefits of targeting ?

As the targeting of programmes involves additional costs, it is important to be fully aware of the benefits of targeting. A well-selected and implemented targeting method will maximize the social returns from a food and nutrition programme by excluding non-needy individuals, while minimizing the cost by only including the most needy. In instances where current spending on nutrition-related activities only partially covers those people in immediate need, targeting can ensure optimal impact by directing limited resources to those at greatest risk. Where current spending on nutrition-related activities covers many beneficiaries who are not in need of assistance, improved targeting can lead to substantial reductions in public expenditures on programmes, without necessarily reducing their impact on those most in need.

In order to understand the overall impact of a nutrition activity on the target population, it is necessary to consider the direct and indirect **nutritional, social** and **economic benefits**. **Potential negative effects** on the target population, or on others, may also result from a programme, and these also need to be accounted for.

## DIRECT NUTRITIONAL BENEFITS

A well-targeted programme can potentially deliver nutritional benefits in a more cost-effective way than an identical programme that is poorly targeted. For example, directing supplementary food rations to children who are malnourished will be more cost-effective than providing supplementary feeding to all the children who attend health services. Either more or better food supplements can be provided to malnourished children within the same programme budget, or programme budgets can be reduced. Similarly, in many societies, targeting income-generating programmes to women is more likely to improve the food consumption levels of children than not targeting those activities according to gender.

## SOCIAL BENEFITS

Improved nutrition has far-reaching social benefits – in terms of better health, improved learning abilities, greater physical capacities and higher productivity – that extend well into the future. As a way of increasing income-earning capacity, household food security or nutrition programmes with well-defined objectives have direct benefits in terms of reduced poverty levels, declining malnutrition rates and other similar results. For example, the distribution of food stamps in programmes that target needy women and children through maternal and child health (MCH) services will have direct benefits by increasing the access to food of the recipients and can be used as an incentive to increase their attendance at MCH centres. School feeding programmes usually increase school attendance. This may be particularly important in societies where the school attendance of girls is relatively low, because it motivates parents to send girls to schools. An educated woman will naturally contribute more to the development of her society and girls' education may increase the efficiency of other social programmes, such as family planning programmes.

The social impact of food security and nutrition activities may be particularly difficult to measure since it relates to effects such as the psychological cost of hunger, the implications of malnutrition on the mental development of children, the value of lost income as a result of lower productivity and risk-minimization (coping) strategies, the costs of additional health care, and a wide range of other factors. Most of these effects and costs are measured in different ways and not all of them can be expressed easily in monetary terms. Nonetheless, they can have important consequences in terms of the overall impact on sustainable human development, and therefore must be considered when assessing different intervention and targeting options.

In addition, direct benefits from targeting programmes are usually accompanied by indirect benefits that extend beyond the intended programme objectives. Programme participants often change their habits or behaviour as a result of the introduction of a new programme and the exposure to new knowledge and methods. Of course, programmes can also introduce new constraints for the target group. For example, the provision of credit to women for income-generating activities may necessitate a reallocation of time spent on other tasks, such as child care, with negative social and nutritional consequences. A targeting method that alters the distribution of goods and services is also likely to alter the broader pattern of incentives that influence the behaviour of participants. Understanding the likely behavioural responses of beneficiaries to a targeted intervention is important for improving the effectiveness of the targeting method and for increasing the overall social impact of the intervention.

## ECONOMIC BENEFITS

The potential financial savings from targeting can be substantial, and have to be weighed against the additional programme costs that result from targeting (see The cost of targeting). Identification of needy groups in the population provides the targeted programme administrators with a number of cost-saving options through:

- n reducing overall programme costs while delivering the same level of goods and services to the most needy population groups;

**A review of nutrition programmes in 19 Latin American countries found that more than 20 percent of the population – or approximately 83 million people out of an estimated 414 million in the study countries – receive some level of benefits through nutrition-related programmes. However, in these same countries, the estimated total number of malnourished children is about 10 million. Overall, with improved targeting of benefits to the most needy, it would be possible to more than double the per capita expenditures of these programmes and cover almost five times the present number of malnourished children in the region, without increasing total programme expenditures. In countries where current spending on nutrition-related activities only partially covers children in immediate need, targeting can ensure optimal impact by directing limited resources only to the most needy. In countries where such activities cover many times as many beneficiaries as there are malnourished children, improved targeting could lead to substantial reductions in public expenditures on nutrition-related programmes without seriously undermining their impact on the most needy.**

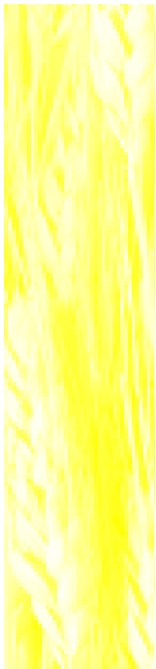
- n increasing the number of needy individuals who receive programme goods and services under a fixed budget;
- n increasing the level of benefits provided to the needy groups under a fixed budget, or even under a lower budget.

## Potential negative effects of targeted programmes

Programmes that are targeted may have unintended negative consequences, either because of the programme design itself or because the targeting mechanisms fail. For example, the distribution of cash transfers in areas where market food supply is unresponsive to changes in demand, may lead to higher food prices, with significant negative implications for the purchasing power of the poor who are not benefiting from the cash transfer, and reduced real income improvements for the poor who do receive a cash transfer. Where an activity is targeted by region, population movements may result as people relocate in search of public support, placing additional pressures on the social infrastructure, services and environment in those areas.

Poorly targeted emergency food aid may lead to the sale of rations by non-needy recipients (this also occurs when rations contain foods that are not acceptable to the local population). This will decrease local market food prices and will be a disincentive to local producers in the affected areas, resulting in the continuance of food shortages and food aid dependence. In the health sector, poorly targeted public expenditures may reduce the incentives for private sector investment in areas that would otherwise have adequate levels of demand for private sector services. Other, less obvious, negative effects include the potential loss of self-esteem attached to participation in programmes targeted to deprived groups, as well as the loss of privacy through providing personal information for programme screening.

It should also be noted that targeting may have negative consequences for special interest groups. For example, it may reduce the political power base for politicians, particularly when the non-needy who are excluded are the politically most active. Targeting at the community level may increase the social pressure put on community leaders by excluded groups who want to be included among programme participants.



**In the Sudan, in both the food aid assistance emergency relief programme and the school feeding programme, wheat was introduced to replace the locally consumed sorghum. This led to a new food habit of consuming wheat in the form of bread; the demand was further increased by a high urbanization rate. Local production could not meet the newly created demand for wheat, and consequently the country had to depend on imported wheat. In addition, local farmers were unable to sell their sorghum crops at reasonable prices.**

**In Somalia, the distribution of food supplements through the MCH services was used as an incentive for mothers to attend those services. Yet, owing to the lack of adequate supervision and trained staff, food distribution was not integrated with other routine MCH services such as growth monitoring and nutrition education because staff were fully occupied with the food distribution and could not provide other services at the same time. In practice, the health centre was operating as a food-distribution centre where, in many instances, women came only to receive food rations.**

## The cost of targeting

Every targeting method involves some information and administrative costs, which are incurred during the establishment of targeting criteria and the determination and monitoring of programme participants' eligibility. Different targeting methods involve different costs, and these costs must be added to the other programme costs in order to assess the net economic gain from targeting, and to compare the gains from alternative targeting schemes.

Information costs include initial costs for information gathering, information processing and analysis, as well as information verification to ensure its accuracy. Continuous eligibility screening and monitoring make these costs recurrent, and occupy programme staff time. Additional administrative costs are incurred by continuous monitoring by programme supervisors to ensure that programme staff correctly and consistently apply the eligibility criterion or criteria. Information costs fall into two basic groups:

- n **Up-front costs** are associated with the development of the targeting scheme and the determination of eligibility criteria. They can include the cost of field studies to assess the likely feasibility and efficiency of various targeting

options and, once an administrative targeting method has been selected, the cost of rapid assessments or formal surveys to help determine the most appropriate indicator or indicators for screening purposes.

- n **Ongoing information or screening costs** are associated with the implementation of a targeting scheme. They include costs of staff time for the collection of data and the identification and selection of eligible individuals, and also materials and other logistics costs associated with the collection of that information. For example, in food-for-work programmes information about local labour market conditions has to be gathered in order to ensure that wages are continuously set at levels that will attract only those who are most in need.

It should be pointed out that different targeting schemes have different time and, sometimes, other costs for the programme participants who are to gain access to programme benefits. For example, if programme eligibility is established through a means test, candidates for participation incur costs associated with travelling to a programme facility, obtaining and submitting documentation and/or submitting to an interview. Participation in the programme's data- and information-gathering activities also involves time costs for participants.

As the cost of gathering initial data can be quite high in terms of both time and physical resources, whenever possible the required information should be obtained from existing studies and data sets. In addition, if original studies are required, they should be designed to link with the other information-gathering activities that are necessary for the overall programme design, such as preliminary problem assessments, needs assessments and baseline evaluation survey

When the programme administration is located near the intended target population, the cost of collecting information for targeting will be reduced. Clinic-based nutritional screening is an example of a fairly low-cost targeting method, since the required information is relatively focused, staff are already on the premises to provide a range of other services and, typically, potential beneficiaries present themselves at the facility, reducing staff transportation costs for data collection. In contrast, the relief activities of non-governmental organizations (NGOs) or UN agencies, particularly those working outside their usual programme areas, can have fairly high targeting costs associated with the time and logistics efforts required to gather the necessary information, such as information to identify the



affected individuals, information on the nature of local vulnerability, information for selecting appropriate targeting criteria, and information for screening purposes. More specific costs associated with different targeting schemes are discussed in Chapter 2.

In order to provide a better understanding of the presentations and discussions contained in the following chapters, a number of frequently used terms associated with programme targeting are briefly defined in the Box on the following page.

**In addition to the explicit costs associated with a particular targeting method, some implicit costs, which are critical to ensuring good coverage and programme success, may be incurred. These implicit targeting costs may include the cost of expanding the infrastructure of a service delivery system to ensure greater access for the target population.**

**For example, in the Bangladesh food-for-education activity, the participation (coverage) of school-age girls was expanded by increasing the size of the food ration provided, so that it sufficiently compensated the girls' families for the opportunity costs of time spent at school. Although not necessarily regarded as such, these larger rations could be considered an important element of the programme's targeting mechanism.**

## TARGETING TERMS

<b>Targeting</b>	A method of delivering goods and/or services to a select group of individuals or households, rather than to every individual or household in the population.
<b>Target population</b>	Those individuals or households intended to receive goods, services or benefits under a particular programme or activity.
<b>Participant/beneficiary population</b>	Those individuals or households who actually receive goods, services or benefits under a particular programme or activity.
<b>Screening</b>	The identification and inclusion of eligible individuals or households for programme participation, and the exclusion of the non-eligible.
<b>Target indicator</b>	A direct measure of a particular characteristic of the target population that is used to identify members of the target group.
<b>Proxy indicator</b>	An alternative or substitute indicator that is closely associated with a target indicator, and that can also be applied to identify members of a target population.
<b>Benchmark indicator</b>	A key indicator that is directly related to the stated targeting objectives, and that is used to monitor the implementation of the targeting scheme.
<b>Coverage or participation rate</b>	The percentage of the target population that is actually included among the beneficiaries of a programme or activity.
<b>Undercoverage</b>	The proportion of the target group that is excluded from participation in the activity.
<b>Leakage</b>	The proportion of the beneficiary population that does not belong to the intended target group. Leakage can also refer to the proportion of total benefits that accrue to individuals or households who are not included in the target group.
<b>Errors of exclusion</b>	The number of individuals or households who are eligible for participation but do not participate.
<b>Errors of inclusion</b>	The number of individuals or households who are not eligible to participate but who do participate.
<b>Targeting efficiency</b>	The ratio of included target population to the total target population minus the ratio of the included non-target population to the total population included (+1 = perfect targeting; -1 = targeting that is completely wrong; 0 = random programme participation).
<b>Food insecurity</b>	Inadequately low intake levels of nutritious and safe food. It can be a transitory, seasonal or chronic condition.
<b>Vulnerability</b>	The presence of factors that place individuals or households at risk of becoming temporarily or permanently food-insecure or malnourished.



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**The wide variation of social contexts in which different activities are undertaken will often lead to wide differences in the final choice of targeting method.**