

## World Agriculture & Trade



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# Food Aid: How Effective in Addressing Food Security?

Food aid has served as a major tool for the international community in improving food access and reducing suffering from emergency conditions in low-income countries. The 8.5 million tons of food aid provided in 2000 could reduce the projected 2001 gap between food available and food needed to maintain consumption levels in low income countries by as much as 80 percent. The actual impact of food aid is sensitive to its allocation. Analysis by USDA's Economic Research Service (ERS) finds that historical allocations of food aid have been directed more heavily toward countries that have adequate aggregate food supplies but also vulnerable groups unable to purchase the food required to meet their needs. The analysis estimates the potential impact food aid could have on different measures of food security and highlights the importance of targeting food aid resources.

Food security is defined as access by all people at all times to enough food for an active and healthy life. Progress toward global food security objectives has been slow, but food aid can help close the gap between countries' food needs and food availability. How effective have food aid programs been in addressing the needs of recipient countries? What does this imply

for future effectiveness? Analysts at ERS have assessed the food security situation in 67 developing countries, taking into account each country's physical access to food (physical availability) and its economic access (ability to purchase). Five regions were represented in the study: North Africa (4 countries), Sub-Saharan Africa (37 countries), Asia (10 countries), Latin America and the Caribbean (11 countries), and the New Independent States (NIS) of the former Soviet Union (5 countries).

Food security situations in these countries were evaluated by projecting the gaps between estimated food consumption (defined as domestic production plus commercial imports minus non-food use) and two different consumption targets through the next decade using ERS's food security assessment model. The targets are:

- maintaining per capita consumption at the 1998-2000 level (the "status quo target"), and
- meeting recommended nutritional requirements (the "nutrition target") which in most cases would allow a higher calorie diet.

It should be emphasized that the food security assessment makes no assump-

tions about availability of food aid in its projections. Moreover, the measure of estimated nutritional gaps is for calorie consumption alone, without reference to factors such as poor utilization of food due to inadequate consumption of micronutrients or lack of health and sanitary facilities. For the 67 countries included in this analysis, the food needed (in grain equivalent) to maintain per capita food consumption at the 1998-2000 level (status quo) is estimated at about 11 million tons in 2001. The food to meet nutritional requirements is 18.3 million tons.

A "distribution gap" is also estimated because estimated food gaps for individual countries represent average gaps, masking the impact of unequal incomes on food security. This gap represents the amount of food needed to raise food consumption for each income group within each country to the level that meets nutritional requirements. This indicator captures the impacts of unequal purchasing power on food access. It also allows for an estimate of the number of hungry people—those who are consuming below the nutritional target.

The distribution gap—estimated at 31 million tons—is even higher than the other food gaps. Further, 896 million people were estimated to subsist on less than the nutritional requirements in 2001, or 35 percent of the population of the 67 countries.

The analysis revealed Sub-Saharan Africa to be the most vulnerable region, accounting for 23 percent of the population of the countries but 38 percent of the number of hungry people in 2001. That year, about 57 percent of the region's population, or 337 million people, were estimated to be hungry.

On the basis of the food needs assessment, food aid can be evaluated in terms of the proportion of the food gaps (status quo and nutritional gaps) it eliminates. The quantities of food aid and its distribution to recipient countries vary annually depending on the policies of donor nations. Most of the food aid is in the form of cereals. Cereal food aid shipments for 2000 were about 8.5 million tons.

The Asian countries included in this analysis are recipients of the largest share

of aid, nearly 40 percent. Sub-Saharan Africa receives roughly a third, while Latin America and the Caribbean receive less than 10 percent of the aid. The U.S. continues to be the main source of aid, providing 55 percent of the world total (in terms of volume).

Depending upon the future availability of food aid, part of the projected food gaps can be eliminated. Based on aggregate food security assessment estimates for 2001, if food aid levels for that year are the same as in 2000, food aid would fill nearly 80 percent of the calculated gap to maintain per capita consumption (status quo), and nearly half of the nutritional gap. If countries receive the same level of food aid in 2001 as in 2000 (i.e., no change in country or quantity allocations), the estimated number of hungry people would be 691 million rather than 744 million. In other words, based on the current level of food aid, roughly 50 million people may avoid hunger. On the other hand, this underscores that, while food aid can play a useful role in the fight against hunger, its contribution is limited and cannot be the sole remedy to the hunger problem.

Notably, not all of the available food aid is sent to low-income, food-deficit countries. For example, in 2000 about 7.4 million tons, or 85 percent of total food aid, was given to the 67 countries included in this study. The remaining 15 percent was supplied to countries such as Indonesia and Russia which were facing financial crises.

Although the current level of food aid reduces the food gap significantly, the allocations to individual countries do not always correspond to levels of need. Accounting for the disparity are the lack of information or systematic evaluation of the food situation of countries, and absence of coordination among donors and recipients.

To examine the potential effectiveness of food aid in reducing hunger in the study countries, taking into account the needs of individual countries, ERS combined its food security assessment for 2001 with actual food aid data from 2000. This allowed for the calculation of the food gaps that remained after food aid allocations. It was then possible to compare the

## P.L. 480 Helps Supplement Food Supplies

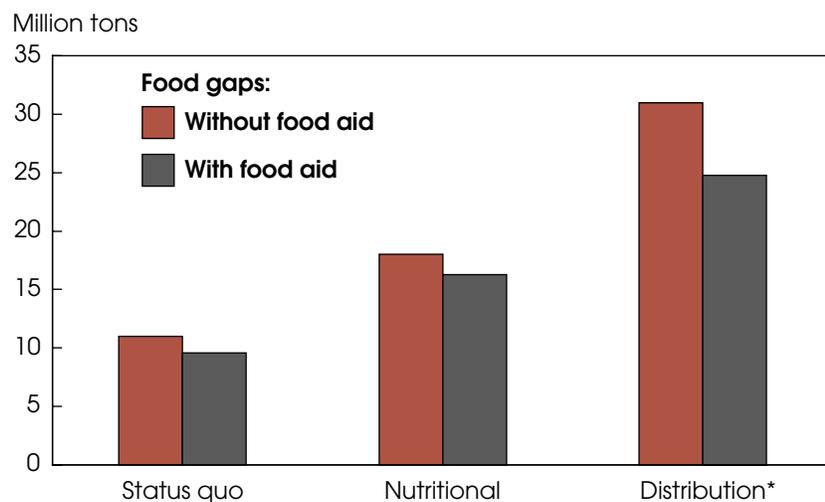
The U.S. provides food aid under three programs: P.L. 480, Section 416b, and Food for Progress. The Section 416b program provides for overseas donations of surplus commodities owned by the Commodity Credit Corporation (CCC) to developing countries. The Food for Progress program authorizes the CCC to finance the sale and exportation of agricultural commodities on credit terms or on a grant basis to support developing countries or emerging democracies. The U.S. P.L. 480 food aid program is the principal vehicle for U.S. food aid and it is comprised of three titles.

- **Title I** consists of government-to-government sales of commodities under long-term credit arrangements.
- **Title II** provides for donations of commodities to meet humanitarian needs.
- **Title III** provides for government-to-government grants to support economic development for the least developed countries.

Through the 1990s, changes in appropriations for the P.L. 480 programs reflect the emphasis toward humanitarian goals of the programs rather than market development goals. In fiscal year 2001, 86 percent of the value of U.S. food aid appropriations fell under the Title II program as compared to 50 percent in the early 1990s.

On the other hand, the allocation levels of Title I fell steadily during the 1990s, averaging over \$400 million per year early in the decade to roughly \$140 million in 2001. Title II varied marginally during the same time period, exceeding \$800 million in most years. Title III is significantly smaller than the other two programs, and there were no allocations in 2001.

## Food Aid is Most Effective in Narrowing the "Distribution Gap"



A food gap is the difference between estimated consumption and a specific consumption target. Food aid numbers used in this analysis are assumed to be equal to the amount of food aid each country received in 2000.

\*Distribution gap is the amount of food needed to raise food consumption for each income group within each country to the level that meets nutritional requirements.

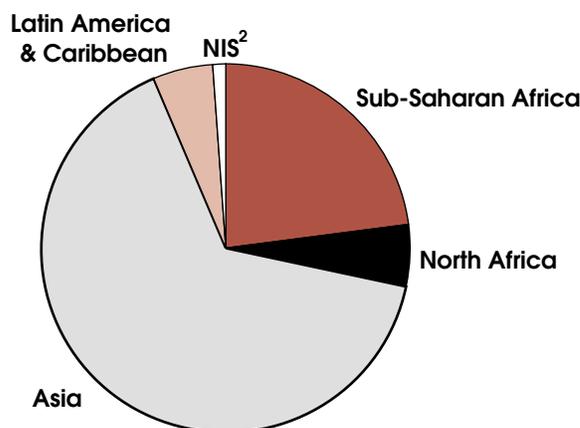
Economic Research Service, USDA

difference in food gaps—the base level without food aid, and the scenario with the actual level of food aid, 7.4 million tons, that the countries received in 2000.

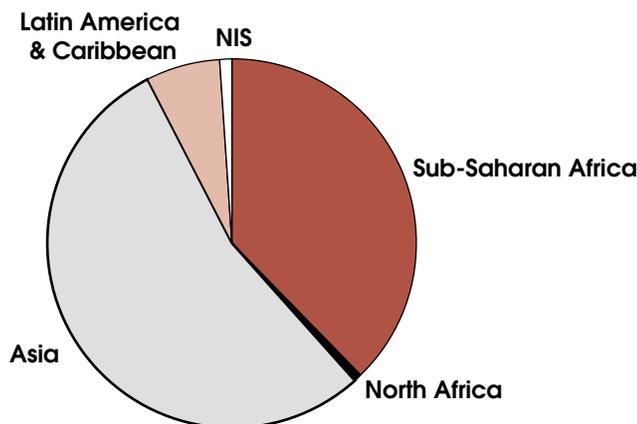
Surprisingly, the analysis showed that these allocations reduced the estimated status quo and nutritional gaps by only 13 and 11 percent, indicating that a relatively

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### Sub-Saharan Africa Accounted for Less Than a Quarter of the Population Studied.<sup>1</sup> . .



### . . .but Accounted for More Than a Third of the Population's Hungry People<sup>3</sup> in 2001



1. The 67 developing countries in the food security assessment by USDA's Economic Research Service.

2. Five of the New Independent States of the former Soviet Union. 3. Hungry people are those consuming below specific nutritional targets.

Economic Research Service, USDA

small share of food aid was given to countries with status quo and nutritional food gaps as estimated by ERS. The largest decline was in the distribution gap, which was reduced by 20 percent as a result of food aid. In other words, 6.2 million tons (85 percent) of the food aid allocated to these countries went to the countries with distribution gaps—countries facing food insecurity due to the inability of the lowest income groups to access food. This is an impressive achievement. It means that most of the food aid was

given to countries such as India and Bangladesh that did not have any national food gaps (based on status quo and nutritional indicators), but did have a distribution gap, stemming from food access limitations. Although this is consistent with the mission of food aid, the analysis indicates that food aid was not entirely allocated based on the severity of food access problems in regions or countries. For example, the amount of food aid received by countries in Sub-Saharan Africa relative to these countries' distribution gaps

was less than that of the Latin American and Asian countries.

In sum, while food aid does reduce hunger, it clearly falls short of the needs. Allocations of food aid are based on a mix of objectives. Decisions may be affected by such external factors as difficulties in delivering aid and competition from other donation priorities. In addition to the extent of hunger, other factors such as political instability and financial difficulties play an important role in donors' decisionmaking. However, it should be emphasized that because of slow progress in improving global food security—countries' ability to provide or purchase sufficient food—and because of the potential and crucial role of food aid and its limited quantities, it is critically important to improve the targeting policies of donors to maximize the benefits to the recipients.

**AO**

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- 8** *World Agricultural Supply and Demand Estimates (8:30 a.m.)*
- 11** *Oil Crops Outlook\*\**  
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- 12** *Feed Outlook (9 a.m.)\*\**
- 13** *Livestock, Dairy, and Poultry Situation and Outlook\*\**
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*Agricultural Outlook (3 p.m.)\**
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\*Release of summary.

\*\*Electronic newsletter.