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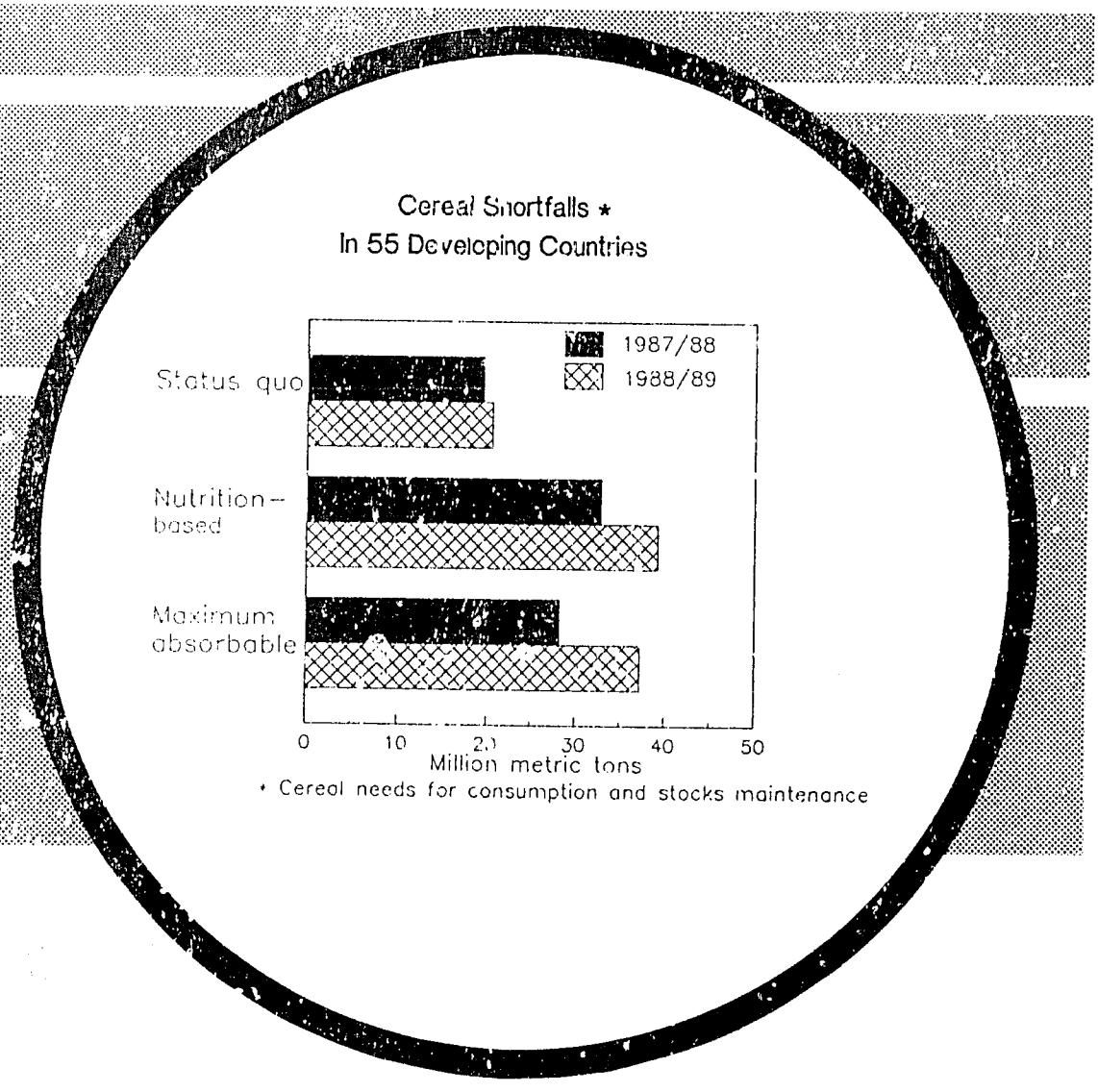
World Food Needs and Availabilities, 1988/89: Fall



PREFACE

The food need levels reported are for the marketing years 1988/89 and 1989/90. As with any projection, assumptions must be made about future events. The assessment of food needs is based heavily upon projections of food crop production and financial ability to commercially import food. Food production is subject to the vagaries of weather and commercial import capacity is influenced by various international commodity and financial market conditions. Since neither weather nor international markets can be predicted with certainty, the food needs contained in this report are subject to change.

To reflect current crop conditions and import capacity, countries are analyzed quarterly, in the season in which current crop information is available. The May issue updates food needs for those countries judged to be facing conditions significantly different from those at the last assessment. For this reason, readers are encouraged to acquire current reports to keep abreast of changing food needs. Readers are further advised that both the methodology and the data used in the calculations are continually being refined by the Interagency Food Aid Analysis Working Group (IFAAWG). This effort reflects the continuing commitment of the U.S. Government to respond more rapidly and adequately to the needs of those countries where food commodity assistance can be used for humanitarian purposes and in the mutual interests of the recipient country and the U.S. Government.

As a result of a Presidential Initiative in the summer of 1984, an Interagency Food Aid Analysis Working Group was established to provide the U.S. Government with the best possible food needs assessment for countries in the developing world. This report is prepared under the aegis of the Interagency Working Group.

As assessment of world food needs has serious implications for both donor and recipient countries, and it has the potential to influence the expenditure of many millions of dollars and affect the lives of many millions of people. It is, therefore, very important that readers clearly understand the issues that the Food Needs and Availabilities report addresses, and those it does not. This report is not an allocation or programming document, but an objective analytical assessment of food needs. Allocation and programming decisions are made in other forums and consider factors in addition to the food needs assessed in this report.

The assessment of food needs presented herein refers to the *amount of food needed* to cover the difference between a country's domestic food production plus its commercial import capacity, and either of the following two alternative measures of food need.

The *status quo* need is based on a country's recently achieved levels of food consumption, while the *nutrition-based* need is based on FAO's published information on minimum recommended dietary intake for each country. In addition, an estimate is made of the maximum absorbable imports if the highest historical levels of per capita total food use and carryover stocks were to be maintained. This assumes the food delivery systems in most food-aid-recipient countries have been "at capacity" at the highest historical level. None of these measures, taken individually, adequately reflect the range of objectives embodied within P.L. 480 legislation, nor does any one measure capture all factors considered in allocation and programming decisions.

WORLD FOOD NEEDS AND AVAILABILITIES, 1988/89

FALL

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ABSTRACT

Cereal shortfalls from 1988/89 consumption requirements in 55 developing countries are estimated at 17.5 million tons, 8.6 million below 1987/88. However, stocks-adjusted additional cereal needs for 1988/89 of 20.5 million are 959,000 over the assessment for 1987/88. The Sub-Saharan region in greatest deficit is East Africa, where flooding and civil disturbance in Sudan is increasing needs. A strong recovery in Indian agriculture is anticipated in 1988/89, but needs in Bangladesh are sharply increased as a consequence of the flooding throughout the country.

FOREWORD

This is the second report in the *World Food Needs and Availabilities* series for 1988/89. Coverage has been reduced to 55 countries, as explained in the initial (August) issue.

Additional food needs are no longer analyzed for all countries in the initial issue of *World Food Needs and Availabilities*. Each quarterly report analyzes only those countries for which current crop information is available: 15 countries in the summer, 17 in the fall and 23 in the winter. The spring issue will present final adjustments as needed. This issue includes:

West Africa	Benin
	Ghana
	Guinea
	Guinea-Bissau
	Liberia
	Sierra Leone
	Togo
East Africa	Central African Republic
	Somalia
	Sudan
	Tanzania
	Uganda
	Zaire
South Asia	Afghanistan
	Bangladesh
	India
	Nepal

Complete updates have been done on the 17 countries covered by this report. Estimates of 1988/89 regional food needs are accomplished through partial analysis for the 23 countries still to be covered in the winter issue. The method employed for this partial analysis is discussed in the summer issue.

Estimates of global food needs for 1989/90 are deferred until February 1989, at which time full analysis will have been completed on the 55 countries. The "Appraisal of Additional Food Needs" will also be included in the February issue.

World Food Needs and Availabilities serves both the requirement of P.L. 480, as amended, that "global assessments of food production and needs" be submitted to the Congress, and the food needs analysis function of the Inter-agency Food Aid Analysis Working Group. Information provided through these reports to the Executive Branch and the Congress is employed, along with other information, in considering fiscal 1989 and 1990 food aid budget allocations. The reports are also intended to provide detailed updates on food supplies and additional food needs both country-by-country and in aggregate. This information is also useful to program and policy officials within donor governments and food-aid-recipient countries, analysts in international organizations and universities, and private agencies involved in food aid distribution.

This report presents two alternative measures of the overall food import requirements and the additional food needs of each country for 1988/89. The analysis for 1989/90 is also presented for the 15 currently subject to the full FNA analysis. The *status quo* and *nutrition-based* assessments are based on two different sets of normative judgments and assumptions regarding the role of additional food and the considerations that might govern its use.

The basic assumption underlying the *status quo* assessment is that additional food will be needed to prevent food supplies, and hence consumption, from falling below recent levels. Meeting status quo food needs would in principle stabilize per capita use by compensating for shortfalls in domestic production and import capacity.

The *nutrition-based* assessment addresses the continuing problem of undernutrition in many of the developing countries. The assumption is that additional food would be needed to close the gap between food availabilities and an internationally accepted minimum nutritional standard. The nutrition-based estimates thus provide an aggregate measure of the nutritional gap, net of recipient countries' capacity to import food commercially. Calculation of zero nutrition-based food needs does not mean all citizens have a nutritionally adequate diet. In developing countries, poor nutrition is frequently the consequence of poor income distribution.

Status quo food needs assessments are stabilized by the method of estimating annual base period per capita food use. Base period food use is calculated as the mean of the most recent 4 years within one standard deviation of the mean of the most recent 8 years. The method is explained in Methodological Notes, published in the summer issue.

The most current weather, crop production, and financial data were employed in making 1988/89 assessments. The 1989/90 assessments are based on projected agricultural production, trade and general economic trends. Estimates of commercial food import capacity are based on historical and projected foreign exchange availability, with continuance of recent debt payments assumed. The share of this exchange allocated to imports is determined by the average value of commercial food imports in the past 3 years. Significant changes in debt payment performance would alter food import capacity and additional food needs.

Neither the status quo nor the nutrition-based food needs measures deal specifically with the ability of a country's infrastructure to absorb food aid without overloading port and transportation capacity, and storage and distribution systems. The maximum absorbable food imports assessment frequently limits the quantity of nutrition-based needs that could physically be provided. The "gap" between maximum absorbable and nutrition-based food needs is one measure of the seriousness of a country's food problem. In a very real sense, the magnitude of the task of achieving the financial and physical capacity to import food, or increasing domestic food production consistent with national food demand, is captured by this measure.

The import requirements and additional food need estimates in *World Food Needs and Availabilities* reports are based on national agricultural and economic data. These estimates assist financial and logistics planning by both donor and food aid recipient countries. It should be apparent, however, that additional food need levels are only a part of the calculus, and that delivering imported food to communities that are deprived by national food production shortfalls or civil disturbances is a major undertaking. Factors bearing on success include local transportation and communications infrastructure, the financial status of both local and national public service agencies, and the availability of international financial support. The supplementary assessments of additional food needs issued through the year are intended to add to the information available, so that food and complementary financial and technical assistance can be made available in a timely fashion.

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The Economic Research Service economists providing analysis for the report included: Richard Brown, Rip Landes, Margaret Missiaen, Stacey Rosen, Leslie Ross, Pat Scheid, and Mark Smith.

Interagency Food Aid Analysis Working Group (IFAAWG) members contributed in food needs assessment workshops. The Agency for International Development (AID) cleared the report. Jeffery Marzilli and Michele McNabb from the AID/Food Needs Assessment Project assisted in the review. Dee Linse participated in working sessions and reviewed the report for the Foreign Agricultural Service, USDA.

Reviewed and approved by the World Agricultural Outlook Board.

SUMMARY

The detailed country tables and narratives in this report include information on the quantities and dollar values of assessed additional food needs, including the need for cereals, pulses, vegetable oils, and milk. This summary covers only additional needs for cereals, the principal commodity in international food aid. Food needs assessments for 1988/89 are based on information available in October 1988

The country coverage of *World Food Needs and Availabilities, 1988/89* is more limited than that of earlier issues. The number of countries being reported on and included in regional and global summaries has been reduced from 69 to 55. These changes are discussed in the Foreword, and in Appendix A of the August 1988 issue.

A number of factors contribute to sustained high assessed food needs in the 55 developing countries assessed. However, drought-induced production shortfalls are dominant only in North Africa. Food stocks were drawn down sharply in 1987/88, and the stocks adjustment provides for rebuilding. Higher international grain prices have reduced the capacity of developing countries to import food commercially. Improvements in the statistical coverage of concessional food imports in food aid recipient countries have reduced foreign exchange allocation to food imports in some countries. The year 1987 has been moved into the financial data base. With large annual changes in total foreign exchange available, or commercial imports, estimated commercial import capacity has changed greatly for some countries.

Cereal needs in 1988/89 in comparison to 1987/88.

Status quo additional cereal needs for 1988/89 consumption requirements are estimated at 17.5 million tons, 8.6 million below 1987/88. However, stocks-adjusted additional cereal needs for 1988/89 of 20.5 million are 959,000 over the assessment for 1987/88. Nutrition-based needs are 33.8 million tons, down 6.4 million from 1987/88, but when stock adjustments are considered needs are up by 6.3 to 39 million. Considering historical consumption levels and stocks, 37 million tons is the maximum that could be absorbed in meeting status quo or nutrition-based additional cereal needs.

Status quo additional cereal needs in Sub-Saharan Africa are placed at 4.8 million tons, down 1.9 million from 1987/88, but stocks-adjusted needs are up 890,000 from 1987/88. The Sub-Saharan region in greatest deficit is East Africa, where flooding and civil disturbance in Sudan are increasing needs. Stocks-adjusted needs in North Africa are sharply up, from 2.6 million in 1987/88 to 5.3 million in 1988/89, due principally to drought in Tunisia and a combination of crop and financial shortfalls in Egypt.

The principal factor causing large Asian food needs assessments in 1987/88 was the drought in India. A strong recovery is anticipated in 1988/89, but needs in Bangladesh are sharply increased as a consequence of the flooding throughout the country. Asian cereal production is forecast at 238 million tons, up from 217 million in 1987/88.

In Asia, status quo food needs are sharply down, from 16.8 million tons in 1987/88 to 6 million. While stock adjustments reduced Asian needs in 1987/88, they will increase needs in 1988/89. But stock changes are overwhelmed by overall Asian production increases, and stocks-adjusted needs are down by 4.5 million tons to 6.8 million. The cost of commercial cereal imports is up sharply. Asian commercial import capacity is 7.3 million tons, compared to 11.7 million in 1987/88. This is the combined consequence of higher commodity prices, reduced foreign exchange availability, and the inclusion in the base period of several years of very low commercial imports.

Latin American cereal needs are 2.3 million tons in 1988/89, up nearly 2 million. The increase is a consequence of higher prices for commercial agricultural imports and inclusion of more complete information on past concessional food imports. The consequence is higher current import costs and lower historical expenditures on imports, resulting in both a lower share of foreign exchange allocated to cereal imports and reduced tonnage for that expenditure.

Nutrition-based needs follow the same pattern as status quo because of the dominance of commodity price increases, but they are greatly amplified by the 20-million-ton increase in cereal use associated with attainment of minimum caloric requirements. Stocks-adjusted nutrition-based needs are 39 million tons, 6.3 million over 1987/88, but the maximum absorbable capacity is 37 million.

Assessed status cereal needs are lower in 1988/89 in relation to cereals production and use, as are nutrition-based needs for consumption. But stocks adjusted nutrition-based needs are slightly higher in relation to production and use.

1988/89 cereals needs sharply down from August assessment

Assessed 1988/89 status quo needs (stocks adjusted) are down 3.3 million tons from the August report. Asian needs are down by 3.8 million tons. The flooding in Bangladesh has increased needs for consumption by 1.14 million, while stocks-adjusted needs have increased 1.35 million. However, status quo consumption needs in India are down 3.4 million, and stocks-adjusted needs are down 5.3 million tons. The estimate of 1988/89 Indian cereal production is up by 2.7 million, and the estimate of total cereal use is down by 1.4 million. Commercial import capacity is reduced by one-half million tons.

Needs for consumption in Sub-Saharan Africa are up by 225,000 tons. Stocks adjusted needs are up nearly one-half million tons. These increases are mainly in East Africa, particularly in Sudan.

North African and Latin American assessed cereal needs are unchanged from August.

Regional cereal situation and assessed additional cereal needs (thousand tons cereal equivalent) [1]

Region	Cereal Equivalent Production	Commercial Import Capacity	Status-quo				Nutrition-based			Maximum [2] Absorbable
			Total use	Import Requirements	Additional needs for Consumption	Additional needs for Consumption + stocks	Total use	Additional needs for Consumption	Additional needs for Consumption + stocks	
1987/88[3]										
Total	288,957	30,187	346,254	57,301	26,065	19,514	358,351	40,246	32,942	28,279
% of production					9.0	6.8		13.9	11.4	
% of total use					7.5	5.6		11.2	9.2	
1988/89										
Africa	70,711	11,349	90,135	19,422	9,382	11,348	96,362	14,777	16,888	16,679
North Africa *[4]	15,243	8,506	28,245	13,002	4,631	5,289	25,637	2,032	2,682	5,289
Sub-Saharan Africa #	55,468	2,843	61,890	6,420	4,751	6,059	70,725	12,745	14,206	11,390
Asia	238,013	7,255	252,901	14,888	5,964	6,797	265,990	16,028	19,156	17,513
South Asia *	179,405	4,203	189,311	9,906	4,239	4,429	203,547	14,405	17 343	14,147
Southeast Asia #	58,608	3,052	63,590	4,982	1,725	2,368	62,443	1,623	1,813	3,366
Latin America +	7,218	1,723	11,145	3,926	2,118	2,328	12,029	2,999	3,208	3,072
Total	315,942	20,327	354,181	38,236	17,464	20,473	374,381	33,804	39,252	37,264
% of production					5.5	6.5		10.7	12.4	
% of total use					4.9	5.8		9.0	10.5	

1 Major cereals, and the cereal equivalent of shortfalls in roots and tubers.

2 Imports consistent with maximum recent levels of consumption and food stocks.

3 1987/88 assessment, May, 1988 World Food Needs and Availabilities report.

4 Regions marked with (*) are done employing the full FNA analysis. Regions marked with (#) contain both countries fully analyzed and countries done employing the reduced analysis. Regions marked with (+) are done entirely with the reduced analysis. Appendix A explains the reduced analysis and shows the share of regional needs assessed by the full and the reduced FNA analysis.

FOOD AID AVAILABILITIES AND OUTLOOK

The Food and Agriculture Organization (FAO) estimates that cereal aid shipments in the July 1988-June 1989 trade year will fall to about 9.4 million tons, 25 percent below 1987/88 levels. Almost all donors are expected to provide less aid because of reduced availabilities and higher commodity prices. If the FAO estimate is accurate, then world cereal aid will fall below the 1974 World Food Conference target of 10 million tons for the first time since 1983/84. Aid is expected to comprise 15 percent of total cereal imports by low-income, food-deficit countries, down from almost 20 percent in 1987/88.

The United States budget for Public Law (P.L.) 480 in the October 1988-September 1989 fiscal year is nearly $1.5 billion, the same in value terms as fiscal 1988. However, due to commodity price increases, the volume of P.L. 480 aid in fiscal 1989 is estimated to be approximately 5.6 million tons (grain equivalent), compared to about 6.4 million tons in fiscal 1988.

In October, the President authorized the release of 1.5 million tons from the Food Security Wheat Reserve to help meet P.L. 480 commitments. The 4-million-ton Reserve was authorized by the Food Security Wheat Reserve Act of 1980, and reauthorized by the Food Security Act of 1985. The act allows the President to provide "emergency food assistance to developing countries at any time that the domestic supply of wheat is so limited that quantities of wheat cannot be made available for disposition" under P.L. 480. The Reserve was opened in lieu of reducing supplies for domestic use, commercial export, and domestic stocks. The only other time the Reserve had been tapped was during the 1984-85 African famine.

The United States provides food aid from surplus CCC stocks under authority of Section 416(b) of the Agricultural Act of 1949, as amended. In fiscal 1988, about 1.8 million tons of CCC cereals and a small amount of soybeans were provided. With the heavy draw-down of CCC stocks, donations under the Section 416 program are expected to be sharply curtailed, but donation levels for fiscal 1989 have yet to be finalized.

The Australian food aid budget for the July 1988-June 1989 fiscal year reflects about a 5 percent increase in value terms, from almost A$100 million in fiscal 1988 to A$105 million (about US$72 million and US$83 million, respectively). Australia budgets its food aid as development assistance and emergency aid. About half of the food aid provided as development assistance is through the World Food Program (WFP), while the remainder is through government-to-government programs. Nearly one-fifth of Australian food aid is budgeted for emergency assistance. Most of Australian food aid is composed of wheat and rice. The FAO estimates that Australia will ship about 330,000 tons of cereals in 1988/89, the same amount as in 1987/88.

As of July 1988, the FAO reports that pledges to the WFP for the 1987-88 biennium slightly exceeded $1.2 billion, still shy of the $1.4 billion target. Pledging for the 1989-90 biennium has started. As of late July 1988, pledges to the 1988 International Emergency Food Reserve, administered by the WFP, amounted to about 290,000 tons of cereals, far short of the 500,000-ton target. Slightly more than 60,000 tons of noncereals were also pledged. Almost all of the contributions were for distribution through the WFP.

ADDITIONAL FOOD NEEDS OF LOW-INCOME COUNTRIES

Measures of Additional Food Needs--Conceptual Framework

Financial indicators and food and agriculture data are used to generate two alternative measures of food needs in addition to estimated commercial import capacity. These measures reflect the choice countries must make between making extraordinary commercial purchases and seeking food aid. Large commercial imports, particularly in successive years, would be at the cost of other imports, including those of development goods. In addition, a measure is computed of the maximum quantities of commodities that countries could feasibly import. Each measure highlights a different aspect of the food problem in low-income countries, and a different notion of the role food assistance might play in easing the problem. For a more detailed discussion, see the Methodological Notes in the August issue of *World Food Needs and Availabilities*.

The first measure, termed "status quo," estimates the additional food needed to maintain per capita use of food staples at levels reported in recent years. Per capita food use is calculated as the mean of the most recent 4 years that do not deviate more than one standard deviation from the mean of the most recent 8 years. This per capita food use is called base-use in the following descriptions of tables and elsewhere in this report. The years employed in calculations are 1980/81 through 1987/88. No provision is made for improving substandard diets, for reducing allocations to countries where [illegible]s are relatively good, or for correcting problems related to the uneven distribution of food across or within countries. Because status quo estimates support a level of per capita availability that has been achieved in the past, in most cases they can be considered to be consistent with countries' ability to absorb food imports.

The second measure, termed "nutrition-based," estimates the additional food required to raise per capita caloric intake to meet FAO's recommended minimum requirements. This measure is based on the notion that food aid might be utilized in a way consistent with nutritional need rather than to maintain a recent, possibly substandard, status quo. In this sense, the nutrition-based measure might be viewed as a maximum additional food need, but is not necessarily consistent with a country's ability to absorb food imports.

The measure of food import feasibility called "maximum absorbable imports" provides a basis for assessing what quantity of additional food might be imported toward meeting large nutrition-based food needs, or possibly building stocks in a period of ample world food supplies. The implicit assumption is that the food delivery systems of many of the countries involved have been fully "loaded" by past high consumption. In addition, the highest level of stocks maintained over the previous 8 years is assumed to be the largest level that can currently be maintained. The estimate is intended to provide a crude measure of the amount of food that can be physically absorbed. This level may then be used to scale back nutrition-based additional food need estimates that may be beyond the physical limits of a country's transportation, distribution, and storage capabilities.

While the status quo and nutrition-based methods differ in their estimation, they have a common structure. In each, an estimate of a country's domestic supplies of food staples is subtracted from an estimate of staple food requirements to arrive at an estimate of import requirements. These are then totaled for food groups, based on assumptions regarding their substitutability. An estimate of a country's capacity to commercially import food in each category is then subtracted from the import requirement to arrive at an estimate of additional food needs. Estimated import unit values for each food group are used to generate import requirements, and additional food needs estimates in both quantity and value terms.

Several factors affecting additional food needs are not addressed in these estimates. First, food distribution problems--both geographical and across income or population groups--are overlooked by national-level food availability and country-average requirement measures. These can mask acute shortages in specific places within a country and uneven distribution of food across population groups. However, measuring the unevenness of food distribution is extremely difficult, because data are not available. Acute problems of this nature are treated qualitatively in the country narratives.

Second, additional food needs are estimated without reference to a country's food and agriculture policies and current performance. Although these issues figure importantly in a

country's choice between exceptional commercial food purchases and concessional food imports, a comprehensive consideration of them is beyond the scope of this report.

Introduction to Country Tables

The following section reports on the food and financial situation and outlook for 55 countries in Africa, Asia, and Latin America. The materials summarize events during the 1987/88 local marketing year (generally July-June), and project food and financial conditions for 1988/89 and 1989/90.

Data shown in the tables must be interpreted with caution. Forecasts of food production, population, and financial conditions for 1988/89 and 1989/90 represent ERS's forecasts of what is likely to happen during those years. But 1988/89 and 1989/90 estimates of all other items--stocks, use, import requirements, and additional needs--are not forecasts of what is likely to happen; they are estimates derived using the status quo and nutrition assumptions summarized in the previous section, and explained in detail in the "Methodological Notes" section of the August report. Additional food needs calculations are also subject to a number of adjustments detailed in the August report.

In each of the country tables, any quantity less than 500 tons and any value less than $500,000 is shown as zero.

Tables Entitled "[Country] basic food data"

These tables provide food staple supply and utilization data for 1980/81-1987/88 and for forecast years (1988/89 and 1989/90). An explanation of each column heading follows:

1. Actual or forecast production--actual production for the individual staples for 1980/81-1987/88, and forecast production for 1988/89 and 1989/90.

2. Net imports--actual net imports during 1980/81-1987/88. Net import figures for forecast years are not supplied. Instead, estimated import requirements based on status quo and nutrition-based approaches are provided in the next set of tables.

3. Nonfeed use, 1980/81-1987/88.

4. Feed use--actual feed use, 1980/81-1987/88, and targeted feed use for 1988/89 and 1989/90. Targeted feed use is calculated to maintain per capita feed use at base-use levels. The same base-use level of feed use is employed in the status quo and nutrition-based estimates of aid needs.

5. Beginning stocks--actual stocks for 1980/81-1987/88, where reliable stocks data are available. Initial calculations of status quo and nutrition-based import and aid needs are done by maintaining the ending stocks for 1987/88 (beginning stocks 1988/89) constant throughout the forecasting period. Import requirements for building food security stocks are calculated subsequently for the countries for which stock data are available.

6. Per capita total use--actual per capita human consumption and livestock feed use for 1980/81-1987/88.

7. Commodity coverage--the food staples included for each country.

8. Share of diet--each staple's share of total daily caloric intake, and the share of total daily caloric intake covered by the food staples analyzed. Data are drawn from the 1979-81 FAO Food Balance Sheets, with adjustments made in some cases for differences in FAO or ERS estimates of feed use or more recent significant changes in a staple's share of the diet.

Tables Entitled "Import requirements for [Country]"

These tables deal only with 1988/89 and 1989/90 estimates. An explanation of each column heading follows:

1. Forecast domestic production--data are drawn from the "basic food data" tables.

2. Total use, status quo--total amount of a staple needed to maintain per capita human consumption at the base-use level and feed use at the targeted level.

3. Total use, nutrition-based--the amount of a staple needed to support FAO recommended minimum daily per capita caloric intake levels and targeted feed use.

4. Import requirements, quantity, status quo--the imports of a staple required to maintain per capita consumption, and also to achieve the targeted levels of feed use with no change in stocks, as shown in the basic food data table. These estimates are calculated for each staple by subtracting forecast domestic production from status quo-based total use.

Subtotals for each commodity group are calculated by summing the import requirements for individual commodities. Calculated surpluses (negative import requirements) for individual commodities within groups are subtracted from deficits in other commodities, because foods are assumed to be substitutable within groups. Noncereals such as roots and tubers are converted to caloric wheat equivalents before being summed. Negative subtotals are shown as zeros because these calculated surpluses are assumed not to be substitutable elsewhere in the diet.

5. Import requirements, quantity, nutrition-based--the imports of a staple required to support recommended minimum per capita caloric intake, and targeted feed use, as no change in stocks is shown in the basic food data tables. These estimates are calculated by subtracting forecast domestic production from nutrition-based total use. Totals for each commodity group by year are computed as described in (4) above.

6. Import requirements, maximum--the largest quantity that could be managed if countries wished to take the greatest advantage of low grain prices to improve stocks or to improve on the nutritional status of the population.

Tables Entitled "Financial indicators for [Country], actual and projected"

These tables give historical data and forecasts for four key financial indicators: year-end international reserves, merchandise exports, merchandise imports, and debt-service obligations. All data are on a calendar year basis and are compiled from a variety of sources, including the World Bank, the International Monetary Fund, Chase Econometrics, country sources, and ERS estimates.

Tables Entitled "Additional food needs for [Country], with stock adjustment and as constrained by maximum absorbable imports"

These tables provide calculations of cereal import requirements and food needs in excess of normal commercial imports, resulting from consumption requirements and from estimates of cereal stock adjustments required for food security. The estimated stock increment (quantity and value) is added to import requirements, and additional food needs to support consumption, to arrive at total import requirements and additional food needs. The stock increment is shown only when it results in altered total additional food needs (i.e. when not offset by negative additional food needs for consumption). For a discussion of how stock increment estimates are calculated, see "Methodological Notes."

1. Commercial import capacity--an estimate of the amount of food within each group that a country can afford to import without reducing below historical levels the share of its available foreign exchange used for nonfood imports. Countries are assumed in forecast years to spend the same proportion of available foreign exchange on commercial food imports as in the base period. The measure is sensitive to historical and projected levels of foreign exchange holdings, total merchandise imports and exports, and debt service. The measure is provided in both quantity and value, using the same country-specific estimates of unit import costs as in the import requirements estimate.

2. Additional food needs, quantity--the estimated quantity of additional food needed in each commodity group to support either the status quo or nutrition-based use level and targeted stock and feed use levels. Negative needs are shown as zero.

3. Additional food needs, value--the estimated value of additional food needed in each commodity group to maintain either status quo or nutrition-based consumption and stock and feed use levels.

Benin

The grain and root crop harvests are expected to be above average this year, following reduced output in 1987. Rains began on time and were plentiful throughout the growing season. Heavy rains in late August caused flooding in Borgou and Zou provinces, leading to destruction of homes, livestock, and some grain stocks. While the extent of the losses is not yet known, food supplies should be adequate to meet needs.

The economy of Benin, heavily dependent on regional trade and cotton and petroleum exports, was adversely affected by regional recession and the fall in world commodity prices. Planned debt rescheduling will relieve some of the pressure on the country's economy. The Benin Government's move toward privatization should allow the country to benefit from any recovery in the Nigerian economy

On the trade side, import bans in Nigeria have driven up demand for grain transshiped though Benin. Thailand's rice shipments to Benin rose from 20,000 tons in 1985 to 333,000 in 1987. Even though these numbers were not used in calculating Benin's rice import requirements, they do indicate very active grain trade. Benin's import requirements for wheat and rice, 50,000 and 40,000 tons, respectively, are partially offset by surpluses of coarse grains.

Benin basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	340	0	89	429	0	125	Wheat	4.1
1981/82	358	0	117	475	0	134	Rice	3.1
1982/83	347	0	86	433	0	118	Corn	22.1
1983/84	349	0	74	423	0	112	Sorghum	4.6
1984/85	477	0	52	494	0	126	Millet	0.5
1985/86	520	35	62	567	0	140	Cassava	21.6
1986/87	498	50	70	578	0	138	Yams	13.9
1987/88	393	40	80	503	0	116	Total	69.9
1988/89	520	10						
1989/90	520	10						
Roots								
1980/81	1,277	0	0	1,277	0	372		
1981/82	1,241	0	0	1,241	0	350		
1982/83	1,282	0	0	1,282	0	350		
1983/84	1,200	0	0	1,200	0	317		
1984/85	1,508	0	0	1,508	0	386		
1985/86	1,485	0	0	1,485	0	367		
1986/87	1,584	0	0	1,584	0	378		
1987/88	1,575	0	0	1,575	0	363		
1988/89	1,625	0						
1989/90	1,650	0						

Import requirements for Benin

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	520	556	604	36	84	150
1989/90	520	577	620	57	100	174
Roots						
1988/89	1,625	1,629	1,732	4	107	109
1989/90	1,650	1,690	1,799	40	140	148
Cereal equivalent						
1988/89	1,158	1,196	1,285	38	127	170
1989/90	1,167	1,240	1,324	73	156	208

Financial indicators for Benin, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	161	314	9	8	153	11
1981	148	432	10	58	138	14
1982	144	466	15	5	130	16
1983	128	302	24	4	103	24
1984	170	237	29	3	131	10
1985	177	267	22	4	154	6
1986	180	360	58	4	122	9
1987	200	370	116	4	84	
1988	200	375	43	4	156	8
1989	200	375	43	4	156	8

Additional food needs to support consumption for Benin, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	46	11	0	0	81	19
1989/90	53	11	19	4	103	21
Stock adjustment						
1988/89			14	3	14	3
1989/90			1	0	1	0
Total						
1988/89			6	1	95	23
1989/90			20	4	104	22
Maximum absorbable						
Cereal equivalent						
1988/89			6	1	95	23
1989/90			20	4	104	22

Ghana

Weather in Ghana during the 1988 growing season was favorable. Good harvests are expected for all major food crops. Production of corn, the primary food grain, is expected to exceed the target of 581,000 tons. Output of millet and sorghum is also anticipated to be up significantly. Coarse grain surpluses will offset most of the import requirements for wheat (133,000 tons) and rice (43,000 tons); however, consumers are not likely to substitute significant quantities of coarse grains for wheat and rice in their diets. Grain imports will remain in the 150,000-200,000 ton range during the next year, especially if concessional financing is available. Some coarse grains will be available for export, but with good harvests in neighboring countries there will be little opportunity for sales. Stocks are likely to increase substantially.

Ghana's financial situation is strongly influenced by world cocoa prices, which have fallen sharply since the beginning of the year. A 20-percent decline in cocoa production in 1987 reduced the quantity available for export this year. Some recovery in output is expected this season. Loans from international financial institutions in support of Ghana's policy reform program have improved the country's financial position. Devaluation has increased the value of export earnings.

Ghana's 1988/89 import requirements and additional food needs are underestimated because of the large corn surplus. The country will continue to require wheat and rice imports in 1988/89.

Ghana basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	648	70	259	847	70	85	Wheat	4.7
1981/82	693	60	201	814	70	80	Rice	4.0
1982/83	532	70	266	748	70	73	Corn	15.4
1983/84	422	50	203	615	50	56	Sorghum	4.7
1984/85	897	10	145	912	60	77	Millet	4.0
1985/86	753	80	181	884	70	73	Cassava	23.5
1986/87	878	60	110	897	81	72	Cocoyams	6.4
1987/88	718	70	230	869	84	68	Plantains	8.0
1988/89	1,013	65					Total	70.7
1989/90	960	65						
Roots								
1980/81	3,699	0	0	3,699	0	341		
1981/82	3,525	0	0	3,525	0	321		
1982/83	3,843	0	0	3,843	0	343		
1983/84	2,773	0	0	2,773	0	232		
1984/85	5,463	0	0	5,463	0	433		
1985/86	4,403	0	0	4,403	0	339		
1986/87	4,206	0	0	4,206	0	310		
1987/88	4,293	0	0	4,293	0	308		
1988/89	4,525	0						
1989/90	4,675	0						

Import requirements for Ghana

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	1,013	1,030	1,414	17	401	217
1989/90	960	1,061	1,443	101	483	306
Roots						
1988/89	4,525	4,667	5,021	142	496	1,697
1989/90	4,675	4,806	5,171	131	496	1,731
Cereal equivalent						
1988/89	2,765	2,834	3,315	69	550	796
1989/90	2,770	2,918	3,401	149	631	896

Financial indicators for Ghana, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	1,104	908	94	180	1,010	5
1981	711	954	53	146	657	7
1982	607	589	62	139	545	5
1983	439	500	100	145	339	14
1984	566	533	83	302	483	9
1985	632	669	83	479	550	2
1986	773	713	89	513	685	3
1987	827	952	106	195	721	
1988	750	900	116	200	367	5
1989	775	950	120	200	362	5

Additional food needs to support consumption for Ghana, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	64	15	5	1	486	115
1989/90	73	15	76	16	558	115
Stock adjustment						
1988/89			12	3	12	3
1989/90			2	0	2	0
Total						
1988/89			17	4	497	118
1989/90			78	16	561	115
Maximum absorbable						
Cereal equivalent						
1988/89			17	4	497	118
1989/90			78	16	561	115

Guinea

Good rains in late August and early September improved crop prospects, especially in areas which previously suffered dry spells. Harvests of grain and root crops are expected to be slightly above last year's good output.

Uncertainties in the rice market led to shortages in Conakry during recent months. Since early August, the Government has tried to enforce a new pricing formula, lowering the price of rice. Compounding the problem was the rising world price which caused some suppliers to cancel contracts. Private traders have been unable to cover their costs, causing them to withhold rice from the market.

The Government of Guinea has implemented a coherent and vigorous reform program over the last 2 years. GDP growth reached 6 percent in 1987. Agricultural output and exports increased sharply due to the adoption of new liberal policies. The assistance provided by international financial institutions and other donors played a major role in the rapid turn around of the Guinean economy. However, there are signs that the reform has slowed recently.

Guinea basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	345	50	131	501	0	91	Wheat	2.8
1981/82	334	25	99	448	0	80	Rice	30.9
1982/83	380	19	112	477	0	84	Corn	3.4
1983/84	366	25	188	529	0	91	Millet	3.7
1984/85	376	50	136	537	0	88	Cassava	16.0
1985/86	367	25	181	523	0	82	Total	56.8
1986/87	432	50	160	592	0	90		
1987/88	427	50	160	607	0	90		
1988/89	450	30						
1989/90	450	30						
Roots								
1980/81	480	0	0	480	0	88		
1981/82	485	0	0	485	0	87		
1982/83	490	0	0	490	0	86		
1983/84	494	0	0	494	0	85		
1984/85	496	0	0	496	0	82		
1985/86	500	0	0	500	0	78		
1986/87	510	0	0	510	0	78		
1987/88	520	0	0	520	0	77		
1988/89	550	0						
1989/90	550	0						

Import requirements for Guinea

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	450	608	784	158	334	201
1989/90	450	624	802	174	352	217
Roots						
1988/89	550	557	915	7	365	55
1989/90	550	571	938	21	388	70
Cereal equivalent						
1988/89	671	832	1,152	161	481	223
1989/90	671	853	1,179	182	508	246

Financial indicators for Guinea, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	495	394	95	67	400	13
1981	493	426	82	68	411	8
1982	444	378	78	108	366	5
1983	502	366	67	104	434	5
1984	510	407	116	95	394	9
1985	513	377	66	89	447	4
1986	555	451	103	91	452	4
1987	584	468	162	54	422	
1988	575	450	97	55	446	5
1989	600	475	101	55	462	5

Additional food needs to support consumption for Guinea, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	88	20	73	17	393	90
1989/90	105	21	77	15	403	80
Stock adjustment						
1988/89			10	2	10	2
1989/90			1	0	1	0
Total						
1988/89			83	19	402	92
1989/90			78	16	404	80
Maximum absorbable						
Cereal equivalent						
1988/89			83	19	145	33
1989/90			78	16	142	28

Guinea-Bissau

The growing season in Guinea-Bissau was characterized by higher-than-normal precipitation. Excessive rains in August hindered rice transplanting and caused localized flooding; however, the overall effect was beneficial. Above-average yields are expected for most food crops. Heavy rainfall interfered with the locust control program, and some crop losses were reported.

To stem a rapidly deteriorating economic and financial situation, the Government of Guinea-Bissau has implemented a number of adjustment measures. The policy reforms, which emphasize a realistic exchange rate and liberalization of trade, have resulted in a revival of the agricultural sector. The balance of payments outlook has improved, with a substantial increase in merchandise exports. The good harvest this year should again contribute to improvement in Guinea-Bissau's economy in 1989.

Guinea-Bissau basic food data

Year	Exports and other credits	Imports and other debits	Debt service	International reserves		Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	1,000 tons					Kilos	Percent
Major cereals							
1980/81	61	0	41	92	0	117	Rice 38.1
1981/82	99	10	34	133	0	165	Corn 7.2
1982/83	119	10	51	172	0	208	Millet & sorghum 3.2
1983/84	106	8	24	135	0	160	Total roots 8.3
1984/85	115	3	43	161	0	186	Total 56.8
1985/86	135	0	28	163	0	184	
1986/87	161	0	25	186	0	205	
1987/88	181	0	23	204	0	220	
1988/89	155	0					
1989/90	170	0					
Roots							
1980/81	40	0	0	40	0	51	
1981/82	40	0	0	40	0	50	
1982/83	40	0	0	40	0	48	
1983/84	35	0	0	35	0	41	
1984/85	40	0	0	40	0	46	
1985/86	45	0	0	45	0	51	
1986/87	40	0	0	40	0	44	
1987/88	40	0	0	40	0	43	
1988/89	42	0					
1989/90	42	0					

Import requirements for Guinea-Bissau

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	155	175	169	20	14	64
1989/90	170	179	175	9	5	54
Roots						
1988/89	42	43	54	1	12	6
1989/90	42	44	55	2	13	7
Cereal equivalent						
1988/89	171	192	190	20	19	64
1989/90	186	196	193	10	10	54

Financial indicators for Guinea-Bissau, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	11	55	4	12	7	1
1981	33	57	4	15	29	16
1982	46	81	3	8	43	1
1983	41	70	2	4	39	6
1984	42	78	4	3	38	2
1985	39	77	5	3	33	8
1986	52	74	9	2	43	7
1987	59	74	28	12	31	
1988	62	84	7	13	63	6
1989	62	85	7	13	63	6

Additional food needs to support consumption for Guinea-Bissau, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	15	3	5	1	4	1
1989/90	17	3	0	0	0	0
Stock adjustment						
1988/89			6	1	6	1
1989/90			0	0	0	0
Total						
1988/89			11	3	10	2
1989/90			0	0	0	0
Maximum absorbable						
Cereal equivalent						
1988/89			11	3	10	2
1989/90			0	0	0	0

Liberia

Agricultural output, mainly rice and cassava, does not show much year-to-year variation in Liberia because of high rainfall, ranging from 4,600 mm. along the coast to 1,600 mm. inland. Precipitation was above normal for most of 1988. Agricultural productivity is low in Liberia because of poor farmer incentives, underdeveloped marketing systems, and farmers' slow adoption new techniques. The "Green Revolution" program launched in 1987 is attempting to create opportunities for subsistence farmers to earn adequate income, to make more productive use of Liberia's resources, and to increase productivity within the limits of technical and economic feasibility.

Liberia's rice imports average more than 80,000 tons annually, most of it concessionally financed. The import requirement for 1988/89 is estimated at 115,000 tons. Wheat adds another 27,000 tons to the requirements.

After years of economic decline, the Liberian economy is showing signs of stabilization. Although the softness of the iron ore market has reduced export earnings, increased earnings from rubber and timber are partially compensating. High world grain prices have led to the decline in Liberia's commercial import capacity to about 50,000 tons, leaving additional needs of almost 100,000 tons.

Liberia basic food data

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	1,000 tons				Kilos	Percent
Major cereals						
1980/81	148	14	114	274	0	144
1981/82	159	2	116	269	0	137
1982/83	153	8	107	248	0	123
1983/84	177	20	104	284	0	136
1984/85	182	17	96	279	0	129
1985/86	176	16	115	290	0	130
1986/87	174	17	115	292	0	127
1987/88	186	14	108	286	0	120
1988/89	180	22				
1989/90	185	22				
Roots						
1980/81	300	0	0	300	0	158
1981/82	315	6	0	315	0	161
1982/83	320	0	0	320	0	158
1983/84	320	0	0	320	0	153
1984/85	320	0	0	320	0	148
1985/86	320	0	0	320	0	143
1986/87	325	0	6	325	0	141
1987/88	330	0	0	330	0	138
1988/89	335	0				
1989/90	340	0				

Wheat	2.9
Rice	44.5
Cassava	20.5
Total	67.9

Import requirements for Liberia

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	180	321	292	141	112	176
1989/90	185	332	301	147	116	182
Roots						
1988/89	335	360	415	25	80	61
1989/90	340	372	429	32	89	69
Cereal equivalent						
1988/89	297	447	436	150	140	195
1989/90	303	461	450	158	147	204

Financial indicators for Liberia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	600	478	39	6	561	6
1981	529	424	27	8	502	8
1982	477	390	34	6	443	7
1983	421	375	30	20	391	8
1984	447	325	22	3	425	7
1985	430	264	18	2	412	5
1986	408	259	28	3	380	12
1987	375	319	115	1	260	
1988	400	300	23	1	375	8
1989	400	320	23	1	375	8

Additional food needs to support consumption for Liberia, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	52	23	98	44	88	39
1989/90	59	23	99	38	88	34
Stock adjustment						
1988/89			3	1	3	1
1989/90			1	0	1	0
Total						
1988/89			101	45	91	40
1989/90			99	38	89	34
Maximum absorbable						
Cereal equivalent						
1988/89			101	45	91	40
1989/90			99	38	89	34

Sierra Leone

Heavy rainfall throughout the 1988 growing season in Sierra Leone is expected to reduce rice production below the 1987 level. Flooding was especially severe in the north. The current estimate reflects only a small decline in total rice output, but more complete assessments later in the season may indicate a larger shortfall. Import requirments for rice and wheat are estimated at 116,000 tons and 40,000 tons, respectively.

Declining output in the mining sector and illegal exports of diamonds and gold have led to an acute shortage of foreign exchange and general economic decline. A tight hold on inflation, control of the budget deficit, and a flexible exchange rate policy are planned in 1988/89 to restore the country's economic health. In the agricultural sector, the Green Revolution Program focused on increasing food production food self sufficiency.

The rice marketing system has also been reformed. The Sierra Leone Produce Marketing Board is no longer an importer of rice. As of August 1988, rice imports and marketing are handled through private channels. Private traders are actively engaged in the buying and selling of domestic rice as well.

Sierra Leone's limited commercial import capacity of 50,000 tons, leaves the country with additional needs of about 100,000 tons.

Sierra Leone basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	345	0	86	429	0	129	Wheat	2.8
1981/82	361	0	126	487	0	144	Rice	47.5
1982/83	341	0	57	398	0	115	Cassava	4.2
1983/84	341	0	60	401	0	114	Total	54.5
1984/85	299	0	123	422	0	117		
1985/86	328	0	124	452	0	123		
1986/87	309	0	150	459	0	122		
1987/88	330	0	130	460	0	119		
1988/89	320	0						
1989/90	340	0						
Roots								
1980/81	95	0	0	95	0	29		
1981/82	97	0	0	97	0	29		
1982/83	100	0	0	100	0	29		
1983/84	105	0	0	105	0	30		
1984/85	100	0	0	100	0	28		
1985/86	110	0	0	110	0	30		
1986/87	112	0	0	112	0	30		
1987/88	116	0	0	116	0	29		
1988/89	120	0						
1989/90	130	0						

Import requirements for Sierra Leone

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	320	476	460	156	140	250
1989/90	340	488	474	148	134	245
Roots						
1988/89	120	116	689	(4)	569	(1)
1989/90	130	119	707	(11)	577	(8)
Cereal equivalent						
1988/89	369	523	741	154	372	248
1989/90	393	536	762	143	369	240

Financial indicators for Sierra Leone, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	214	386	40	31	173	17
1981	153	282	43	46	109	21
1982	110	260	11	8	99	36
1983	107	133	10	16	97	16
1984	133	150	19	8	114	8
1985	132	141	10	11	122	15
1986	126	111	15	14	112	19
1987	110	120	29	35	82	
1988	120	120	13	20	112	14
1989	125	125	13	20	116	14

Additional food needs to support consumption for Sierra Leone, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	50	15	104	30	322	95
1989/90	60	15	83	21	309	79
Stock adjustment						
1988/89			0	0	0	0
1989/90			0	0	0	0
Total						
1988/89			104	30	322	95
1989/90			83	21	309	79
Maximum absorbable						
Cereal equivalent						
1988/89			104	30	197	58
1989/90			83	21	179	46

Togo

Togo's rainfall was at or above normal for the 1988 season. Corn production is expected to rebound from the below average 1987 harvest. Togo continues to have large deficits in wheat (60,000 tons) and rice (35,000 tons). Favorable rains also bode well for the harvest of root crops. Food crop exports are being encouraged as part of Togo's policy reform program. Unfortunately, few markets will be available in neighboring countries, which also have good crop prospects.

Togo's economic and financial situation deteriorated markedly in 1987. The rate of real GDP growth fell to under 2 percent as adverse weather affected foodcrops production, the trading sector stagnated, and investment declined. Price trends for Togo's main exports (phosphates, cocoa, coffee and cotton) are mixed so far this year. Phosphate and coffee prices have strengthened while cotton and cocoa have fallen. Improved agricultural output should contribute to stronger economic growth during the next year.

Togo basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	286	0	63	349	0	134	Wheat	3.9
1981/82	280	0	85	355	0	133	Rice	4.2
1982/83	298	10	96	389	0	141	Corn	19.3
1983/84	283	15	90	378	0	133	Millet and sorghum	11.4
1984/85	429	10	86	490	0	167	Cassava	17.5
1985/86	361	35	82	453	0	150	Yams	18.0
1986/87	353	25	84	452	0	145	Total	74.3
1987/88	375	10	90	465	0	144		
1988/89	389	10						
1989/90	389	10						
Roots								
1980/81	892	0	0	892	0	344		
1981/82	900	0	0	900	0	337		
1982/83	839	0	0	839	0	304		
1983/84	728	0	0	728	0	256		
1984/85	786	0	0	786	0	268		
1985/86	838	0	0	838	0	277		
1986/87	819	0	0	819	0	262		
1987/88	835	0	0	835	0	259		
1988/89	900							
1989/90	925	00						

Import requirements for Togo

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	389	483	474	94	85	193
1989/90	389	500	487	111	98	212
Roots						
1988/89	900	919	1,170	19	270	246
1989/90	925	950	1,209	25	284	260
Cereal equivalent						
1988/89	708	809	890	101	182	188
1989/90	717	836	916	119	199	208

Financial indicators for Togo, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	476	524	46	78	429	3
1981	378	414	46	152	332	5
1982	345	408	43	168	302	4
1983	274	292	48	173	225	9
1984	291	263	74	203	217	8
1985	244	252	89	297	155	10
1986	275	556	128	333	147	8
1987	301	347	145	346	155	
1988	323	375	102	350	209	9
1989	325	375	103	350	209	9

Additional food needs to support consumption for Togo, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent Consumption						
1988/89	66	16	35	8	116	27
1989/90	76	16	43	9	123	25
Stock adjustment						
1988/89			9	2	9	2
1989/90			1	0	1	0
Total						
1988/89			44	10	126	30
1989/90			43	9	124	25
Maximum absorbable						
Cereal equivalent						
1988/89			44	10	126	30
1989/90			43	9	124	25

Central African Republic (CAR)

All reports received through September 1988 indicate harvests have been average or above since the drought of the mid-1980's. Therefore, food import needs are expected to be minimal during the next few months. Status quo import requirements are now estimated at only 35,000 tons of cereal equivalent for 1988/89, compared with the preliminary estimate of 60,000 tons. The nutrition-based estimate for 1988/89 is also down, from 79,000 to 41,000 tons.

These downward revisions are not driven by changed estimates of food production. They result primarily from changes in the country's financial position, slight revisions in population estimates, and the updating of the base period trade and financial data. Food production estimates remain unchanged, at 629,000 tons of cereal equivalent in 1988/89. On the financial side of the ledger, international reserves are much higher than expected a year ago. Imports are slightly lower, and exports are unchanged.

World cereal price increases have reduced CAR's commercial import capacity. But the CAR's improved financial outlook for 1988/89 has strengthened its ability to finance commercial imports.

Central African Republic basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	87	0	28	115	0	51	Wheat	1.7
1981/82	101	0	37	138	0	59	Corn	5.4
1982/83	90	0	39	129	0	54	Millet	7.1
1983/84	80	0	38	118	0	49	Cassava	41.7
1984/85	95	0	30	125	0	50	Yams and cocoyams	10.3
1985/86	105	0	40	145	0	57	Total	66.2
1986/87	105	0	30	135	0	52		
1987/88	109	0	27	136	0	51		
1988/89	115	0						
1989/90	115	0						
Roots								
1980/81	1,166	0	0	1,166	0	514		
1981/82	1,148	0	0	1,148	0	494		
1982/83	1,255	0	0	1,255	0	528		
1983/84	1,054	0	0	1,054	0	434		
1984/85	1,260	0	0	1,260	0	507		
1985/86	1,285	0	0	1,285	0	505		
1986/87	1,285	0	0	1,285	0	493		
1987/88	1,320	0	0	1,350	0	495		
1988/89	1,350	0						
1989/90	1,350	0						

Import requirements for the Central African Republic

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	115	144	126	29	11	48
1989/90	115	147	128	32	13	52
Roots						
1988/89	1,350	1,368	1,430	18	80	96
1989/90	1,350	1,403	1,462	53	112	133
Cereal equivalent						
1988/89	629	665	670	35	41	70
1989/90	630	682	685	52	56	88

Financial indicators for the Central African Republic, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	147	185	2	55	146	3
1981	118	145	4	70	114	5
1982	124	150	5	46	120	3
1983	123	137	18	47	106	2
1984	115	140	15	53	99	2
1985	131	168	13	50	118	3
1986	130	201	18	65	112	8
1987	135	200	33	97	102	
1988	140	190	18	110	161	4
1989	140	190	18	90	141	4

Additional food needs to support consumption for the Central African Republic, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	19	5	17	5	22	6
1989/90	19	5	34	8	37	9
Stock adjustment						
1988/89			0	0	0	0
1989/90			0	0	0	0
Total						
1988/89			17	5	22	6
1989/90			34	8	37	9
Maximum absorbable						
Cereal equivalent						
1988/89			17	5	22	6
1989/90			34	8	37	9

Somalia

Somalia has achieved significant production increases since 1984. Increases in area planted and yields reflect improved weather and improved incentives. Among the new policies aimed at improving agricultural productivity are: liberalization of internal marketing for many crops (particularly cereals) through elimination of the state marketing monopoly; devaluation of the Somalia shilling to bring agricultural and input prices in line with world prices; and making foreign exchange more easily accessible to the private sector for the purchase of agricultural inputs.

Somalia's 1988/89 status quo import requirements are estimated at 305,000 tons; more than half of which is wheat. The commercial import capacity is 148,000 tons. After a small stock adjustment, additional food needs equal an estimated 160,000 tons.

Somalia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	264	0	422	665	11	111	Wheat	9.8
1981/82	370	10	394	737	12	112	Rice	9.0
1982/83	399	25	249	641	12	94	Corn	17.5
1983/84	358	20	330	671	12	95	Sorghum	14.7
1984/85	495	25	344	807	12	112	Milk	13.0
1985/86	650	45	274	912	12	125	Total	63.9
1986/87	600	45	243	834	14	113		
1987/88	567	40	338	891	14	117		
1988/89	601	40						
1989/90	646	40						
Milk (whole)								
1980/81	539	0	13	552	0	90		
1981/82	543	0	14	557	0	83		
1982/83	547	0	11	558	0	80		
1983/84	529	0	14	543	0	76		
1984/85	530	0	14	544	0	75		
1985/86	540	0	20	560	0	76		
1986/87	560	0	20	580	0	77		
1987/88	560	0	20	580	0	75		
1988/89	560	0						
1989/90	560	0						

Import requirements for Somalia

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	601	906	1,146	305	545	406
1989/90	646	936	1,187	290	541	393
Milk (dry equiv.)						
1988/89	50	54	115	4	65	15
1989/90	50	56	118	6	68	17

Financial indicators for Somalia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	204	541	9	15	195	3
1981	255	520	47	31	208	19
1982	256	610	19	7	237	22
1983	177	486	25	9	152	15
1984	107	596	23	1	84	32
1985	128	448	49	3	79	60
1986	117	489	72	13	45	65
1987	127	505	199	13	(72)	
1988	125	500	42	13	88	52
1989	140	500	47	13	98	52

Additional food needs to support consumption for Somalia, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	148	43	157	45	392	113
1989/90	190	48	99	25	345	86
Stock adjustment						
1988/89			3	1	3	1
1989/90			4	1	4	1
Total						
1988/89			160	46	395	114
1989/90			103	26	349	87
Milk						
1988/89	1	1	3	8	0	0
1989/90	1	1	5	10	0	0
Total						
1988/89		44		54		114
1989/90		49		36		87
Maximum absorbable						
Cereal equivalent						
1988/89			160	46	257	74
1989/90			103	26	201	50
Milk						
1988/89			3	8	0	0
1989/90			5	10	0	0

Sudan

The drought-reduced 1987/88 cereal harvest resulted in stock drawdowns to meet consumption requirements. Stocks had been quite high following the excellent 1985/86 and 1986/87 crops, but current levels could pose a food security problem if the crop were to fail. However, all indications are that the 1988/89 harvest will be good. Farmers seem to have responded to record sorghum and millet prices with increased plantings. Satellite images show that rainfall this season was higher than 1987 in most areas. The images also suggest that vegetation is equal to and may be even

greater than historical levels. It does not appear that flooding from the heavy August rains in eastern Sudan has adversely affected the crop. The possibility of locust damage remains, but not on a national scale.

Sorghum production, which accounts for approximately 85 percent of total food production, is forecast at 2.8 million tons for 1988/89, significantly above last year's approximately 1.4 million tons. Status quo cereal equivalent import requirements are forecast at 314,000 tons; this includes 750,000 tons of wheat imports and 500,000 tons of sorghum exports.

Total export earnings, which closely reflect developments in the cotton sector, remain much lower than those of the early 1980's. In recent years cotton exports have been constrained by unfavorable weather, declining world prices, poor domestic policies, and an inadequate marketing system. Export earnings in 1988 are estimated at $400 million. Import expenses, on the other hand, have stabilized in recent years but remain higher than export earnings, thus maintaining the trade deficit. As a result, commercial import capacity is less than 60,000 tons.

Status quo additional food needs are forecast at 662,000 tons, with more than 400,000 tons estimated to go toward rebuilding stocks. Although Sudan does not appear to have extraordinary food needs for 1988/89, major problems do exist in some areas of the country. The war in the south continues to hamper distribution of food to those in need. The August flooding has also hampered relief efforts and caused more difficulties for those attempting to flee the conflict. There are reports of thousands of deaths due to starvation, and this is expected to continue.

Sudan basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	2,816	190	146	2,708	210	155	Wheat	7.9
1981/82	3,981	234	175	3,402	318	191	Rice	0.3
1982/83	2,453	670	182	2,810	198	150	Corn	0.8
1983/84	2,324	297	451	2,785	197	144	Sorghum	33.2
1984/85	1,382	90	1,595	2,892	90	135	Millet	9.5
1985/86	4,169	175	560	3,502	217	180	Peanuts	11.9
1986/87	3,761	875	(6)	3,162	258	148	Total	63.7
1987/88	1,678	1,210	32	2,400	240	112		
1988/89	3,342	280						
1989/90	3,452	260						
Peanuts								
1980/81	707	50	(41)	706	0	37		
1981/82	838	10	(100)	698	0	36		
1982/83	492	50	(70)	442	0	22		
1983/84	413	30	(45)	388	0	19		
1984/85	386	10	0	386	0	18		
1985/86	274	10	0	274	0	12		
1986/87	379	10	0	379	0	16		
1987/88	360	10	(29)	331	0	14		
1988/89	375	10						
1989/90	375	10						

Import requirements for Sudan

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	3,342	3,639	3,991	297	649	2,172
1989/90	3,452	3,714	4,078	262	626	2,157
Peanuts						
1988/89	375	392	574	17	199	563
1989/90	375	400	582	25	207	581
Cereal equivalent						
1988/89	3,717	4,031	4,565	314	848	2,658
1989/90	3,827	4,115	4,659	288	832	2,660

Financial indicators for Sudan, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	689	1,127	104	49	585	5
1981	793	1,634	145	17	648	9
1982	401	750	115	21	286	21
1983	514	703	86	17	428	11
1984	519	600	52	17	467	6
1985	444	579	91	12	353	24
1986	327	634	55	59	272	18
1987	300	700	669	12	(369)	
1988	400	675	64	12	321	16
1989	425	650	68	12	343	16

Additional food needs to support consumption for Sudan, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	57	11	258	52	791	159
1989/90	70	12	318	38	763	133
Stock adjustment						
1988/89			404	81	404	81
1989/90			14	2	14	2
Total						
1988/89			662	133	1,195	240
1989/90			232	40	777	135
Maximum absorbable						
Cereal equivalent						
1988/89			662	133	1,195	240
1989/90			232	40	777	135

Tanzania

Corn is Tanzania's staple grain, contributing more than 20 percent of the diet. Production has improved recently in response to favorable weather, a liberalized marketing system, and higher producer prices. In March 1987, the Government abolished permit requirements for internal movement of grains. Cooperatives have replaced parastatals in the purchase of crops from farmers. The National milling Corporation (NMC) now acts only as a residual buyer. This move should not be interpreted to mean that private traders are handling all grain movements, however. These cooperatives are operated by the government. Producer prices now more closely reflect free market prices. The producer price of corn was increased 80 percent in 1984/35 and 30 percent in 1985/86. Recent increases have been slower because bumper harvests have strained storage facilities. Therefore, for the 1988/89 crop year, the producer price of corn was raised only 10 percent. However, continuation of these incentives could result in a long-term increase in production.

Status quo import requirements for 1988/89 are estimated at 306,000 tons--comprised of wheat, rice, and corn. Commercial import capacity is 160,000 tons, resulting in estimated additional food needs of 154,000 tons, after a stock adjustment of 8000 tons. An increase in export earnings would raise commercial import capacity and thereby work to reduce the food needs.

Coffee contributes approximately 45 percent of exports. The sector has been constrained by declining world prices, low input use, coffee berry disease, an overvalued exchange rate, and more recently, a cut in the export quota under the International Coffee Agreement.

The exchange rate has been devalued considerably since 1985. For example, between 1986 and 1987, the shilling depreciated 100 percent in terms of U.S. dollars. However, without a change in the coffee quota system, it is unlikely that devaluations will have a significant impact on total export earnings.

Tanzania basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	2,784	86	413	3,093	70	168	Wheat	2.8
1981/82	2,815	120	355	3,133	70	165	Rice	5.2
1982/83	2,820	85	315	3,111	65	159	Corn	21.5
1983/84	2,668	44	363	2,983	53	147	Sorghum	2.5
1984/85	3,060	34	263	3,260	60	156	Millet	1.5
1985/86	3,545	37	221	3,659	72	169	Cassava	28.0
1986/87	3,589	72	235	3,651	73	164	Total	61.5
1987/88	3,712	172	291	3,882	71	168		
1988/89	3,685	222						
1989/90	3,695	222						
Roots								
1980/81	5,631	0	0	5,631	0	299		
1981/82	6,000	0	0	6,000	0	309		
1982/83	5,000	0	0	5,000	0	250		
1983/84	5,400	0	0	5,400	0	261		
1984/85	5,600	0	0	5,600	0	263		
1985/86	5,500	0	0	5,500	0	250		
1986/87	5,500	0	0	5,500	0	242		
1987/88	5,500	0	0	5,500	0	234		
1988/89	6,000	0						
1989/90	6,000	0						

Import requirements for Tanzania

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	3,685	3,991	3,867	306	182	431
1989/90	3,695	4,127	3,972	432	277	562
Roots						
1988/89	6,000	6,002	5,921	2	(79)	1,517
1989/90	6,000	6,207	6,091	207	91	1,773
Cereal equivalent						
1988/89	5,605	5,911	5,762	306	157	813
1989/90	5,615	6,113	5,921	498	306	1,022

Financial indicators for Tanzania, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	508	1,069	75	20	433	10
1981	588	1,038	77	19	611	1
1982	413	964	63	5	350	15
1983	379	693	57	19	322	12
1984	373	759	62	27	311	15
1985	325	857	61	18	264	22
1986	346	912	69	61	277	19
1987	300	975	275	32	25	
1988	350	1,000	62	60	310	19
1989	350	1,000	62	60	310	19

Additional food needs to support consumption for Tanzania, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	160	47	146	43	0	0
1989/90	185	47	314	80	122	31
Stock adjustment						
1988/89			8	2	8	2
1989/90			8	2	8	2
Total						
1988/89			154	45	5	1
1989/90			321	82	130	33
Maximum absorbable						
Cereal equivalent						
1988/89			154	45	5	1
1989/90			321	82	130	33

Uganda

In 1981, the Government of Uganda began instituting policy reforms such as the decontrol of food prices and increases in the application of pesticides and fertilizer. These developments, coupled with the improved security situation following the end of the civil war in 1986, have contributed to a steady increase in total food production through the 1980's.

In 1988/89, food production is forecast to exceed estimated status quo consumption. Therefore, no additional food needs are forecast for Uganda.

Uganda basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	1,044	0	30	1,015	59	84	Corn	11.4
1981/82	1,142	0	20	1,102	60	89	Sorghum	7.1
1982/83	1,279	0	5	1,209	75	96	Millet	10.4
1983/84	1,365	0	4	1,289	80	99	Cassava	12.2
1984/85	1,375	0	8	1,293	90	97	Sweet potatoes	5.2
1985/86	1,695	0	2	1,616	81	115	Potatoes	1 1
1986/87	1,766	0	0	1,672	88	115	Bananas & plantains	19.5
1987/88	1,826	0	5	1,739	91	115	Dry beans	6.4
1988/89	1,875	0					Total	75.2
1989/90	1,925	0						
Roots								
1980/81	7,264	0	0	7,264	0	569		
1981/82	8,195	0	0	8,195	0	627		
1982/83	8,570	0	0	8,570	0	640		
1983/84	9,102	0	0	9,102	0	661		
1984/85	9,176	0	0	9,176	0	647		
1985/86	10,540	0	0	10,540	0	716		
1986/87	10,835	0	0	10,835	0	707		
1987/88	11,140	0	0	11,140	0	700		
1988/89	11,397	0						
1989/90	11,397	0						
Pulses								
1980/81	186	0	4	190	0	15		
1981/82	240	0	0	240	0	18		
1982/83	300	0	1	301	0	22		
1983/84	314	0	0	314	0	23		
1984/85	240	0	(4)	236	0	17		
1985/86	360	0	(5)	355	0	24		
1986/87	350	0	(10)	340	0	22		
1987/88	360	0	(10)	350	0	22		
1988/89	370	0						
1989/90	370	0						

Import requirements for Uganda

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	1,875	1,678	2,063	(197)	188	21
1989/90	1,925	1,735	2,130	(190)	205	36
Roots						
1988/89	11,397	10,952	10,105	(445)	(1,292)	382
1989/90	11,397	11,325	10,297	(72)	(1,100)	784
Cereal equivalent						
1988/89	4,585	4,093	4,245	(492)	(340)	1,479
1989/90	4,635	4,233	4,379	(402)	(256)	1,636
Pulses						
1988/89	370	368	414	(2)	44	27
1989/90	370	380	425	10	55	40

Financial indicators for Uganda, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	319	318	22	17	297	0
1981	229	284	58	30	171	2
1982	347	338	55	78	292	6
1983	368	343	77	107	291	1
1984	407	287	92	68	316	0
1985	348	238	64	27	284	2
1986	395	310	29	29	366	70
1987	350	340	114	55	236	
1988	375	325	65	40	301	24
1989	400	325	69	40	321	24

Additional food needs to support consumption for Uganda, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	4	1	0	0	0	0
1989/90	5	1	0	0	0	0
Stock adjustment						
1988/89			0	0	0	0
1989/90			0	0	0	0
Total						
1988/89			0	0	0	0
1989/90			0	0	0	0
Pulses						
1988/89	0	0	0	0	41	26
1989/90	1	0	8	5	52	32
Total						
1988/89		1		0		26
1989/90		2		5		32
Maximum absorbable						
Cereal equivalent						
1988/89			0	0	0	0
1989/90			0	0	0	0
Pulses						
1988/89			0	0	24	15
1989/90			8	5	38	23

Zaire

Zaire's total status quo additional food needs for 1988/89 are 336,000 tons. Although conditions were generally favorable for production this year, Zaire's financial situation is deteriorating, and commercial import capacity is declining.

Production of wheat, a minor crop in Zaire, remains stable at 10,000 metric tons. Consumption is increasing, especially in the Kinshasa area, as prices for wheat are competitive with other staple foods. Increasing demand is satisfied mainly by imports, which are expected to reach 290,000 metric tons of wheat and wheat flour in 1988/89. Production is not expected to exceed 15-20,000 tons in the future.

Rice production has stagnated over the past few years, and now is estimated at 154,000 tons in 1988/89. Because of the 1986 abolition of exclusive buying zones, agricultural inputs provided by regional millers as incentives are no longer available to farmers, since there is no guarantee they will sell to a particular miller. Poor transport and communication systems have also affected production and marketing.

Corn production is expected to increase in 1988/89 to 765,000 metric tons from 720,000 tons in 1987/88. Corn is imported commercially from neighboring countries in Southern and Central Africa, but is difficult to measure because much of it is smuggled.

The 1988/89 commercial import capacity for cereals is estimated at 167,000 metric tons. With status quo total import requirements in cereal equivalent at 498,000, there remain approximately 332,000 tons in additional food needs. Commercial import capacity will be lower in 1988/89, due in part to recent increases in world grain prices. There may be an upward bias in the additional food needs measure due to inadequate data availability. In 1987, Zaire suffered declines in all mineral and natural resources exports except copper. Although world prices for copper improved slightly in 1987, production stagnated. World prices for cobalt, another major export, also declined as demand fell and world production continued to increase in 1985 and 86. In 1987, cobalt prices recovered slightly, but Zaire's production dropped due to continued slow world demand and lost market share.

Zaire's value of coffee exports plummeted by two-thirds in 1987 as both prices and volume dropped sharply. Exports fell from 146,000 tons in 1985/86, to 105,000 in 1986/87. By mid-1988, Zaire's ICO quota for 1987/88 was only 64,000 tons.

Contributing to the effect of declining export earnings are increases in Zaire's overall deficit and total expenditures. In 1985 overall deficit after debt relief was 6.8% of GDP. By 1987 the overall deficit had increased to 11.5% of GDP. Total expenditures increased by 113% in 1987. Foreign exchange reserves have also declined. Of reported reserves, only a small portion is actually available for new expenditures. A large portion of newly acquired gold reserves are pledged to secure short-term credit from foreign commercial banks to the Bank of Zaire, and part of gross reserves are held in a special blocked account with the Federal Reserve in New York for payments to Paris Club creditors.

Zaire basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	754	59	349	1,102	0	43	Wheat	2.1
1981/82	852	60	325	1,184	0	43	Rice	3.1
1982/83	874	53	309	1,195	0	42	Corn	5.9
1983/84	907	51	333	1,249	0	43	Millet and sorghum	0.4
1984/85	934	42	345	1,243	0	42	Cassava	56.0
1985/86	933	78	317	1,277	0	42	Total	70.4
1986/87	963	51	378	1,327	0	42		
1987/88	936	65	427	1,372	0	42		
1988/89	989	56						
1989/90	1,017	56						
Roots								
1980/81	11,900	0	0	11,900	0	446		
1981/82	12,650	0	0	12,650	0	463		
1982/83	13,125	0	0	13,125	0	465		
1983/84	13,450	0	0	13,450	0	464		
1984/85	12,925	0	0	12,925	0	436		
1985/86	13,600	0	0	13,600	0	445		
1986/87	14,000	0	0	14,000	0	443		
1987/88	14,400	0		14,400	0	445		
1988/89	14,800	0						
1989/90	14,800	0						

Import requirements for Zaire

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	989	1,402	1,377	413	388	475
1989/90	1,017	1,444	1,417	427	400	490
Roots						
1988/89	14,800	15,043	15,378	243	578	670
1989/90	14,800	15,488	15,800	688	1,000	1,127
Cereal equivalent						
1988/89	6,154	6,652	6,743	498	589	699
1989/90	6,182	6,849	6,931	667	749	873

Financial indicators for Zaire, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	2,269	1,761	365	204	1,904	4
1981	1,678	1,637	194	152	1,484	10
1982	1,601	1,436	135	39	1,466	4
1983	1,686	1,330	186	102	1,600	4
1984	1,918	1,321	319	137	1,599	3
1985	1,853	1,420	341	190	1,512	5
1986	1,844	1,544	370	269	1,474	5
1987	1,738	1,660	386	181	1,352	
1988	1,800	1,650	297	169	1,456	4
1989	1,800	1,650	297	180	1,467	4

Additional food needs to support consumption for Zaire, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	167	39	332	77	422	98
1989/90	194	39	473	96	555	112
Stock adjustment						
1988/89			5	1	5	1
1989/90			2	0	2	0
Total						
1988/89			336	78	427	100
1989/90			475	96	557	113
Maximum absorbable						
Cereal equivalent						
1988/89			336	78	427	100
1989/90			475	96	557	113

Afghanistan

No new data on agricultural and economic conditions in Afghanistan have been made available since mid-1986, when the Government provided official updates of agricultural production and trade, and balance of payments data through 1985/86. Those data indicated that, since the Soviet incursion in 1979, food grain production has generally been stable at close to pre-incursion levels. This information is at variance with that collected through interviews with Afghan refugees, which indicate that at least in some areas plantings and yields are down sharply from pre-1979 levels. However, because there is no means of generalizing from the interview information, or of evaluating its reliability, the official data have been retained as the basis for this assessment.

Based on the assumption of average weather, 1988/89 food grain production is estimated at 3.9 million tons, near the recent 4-year average and up slightly from 1987/88. It is assumed that the recent cease fire and gradual departure of Soviet troops will contribute to some growth in production by 1989/90. The available production and population estimates indicate that the departure of about 5 million refugees boosted per capita supplies in the early 1980's. However, since then per capita food grain supplies appear to have declined steadily.

Status quo cereal import requirements are estimated at just under 380,000 tons in both 1988/89 and 1989/90. Nutrition-based import needs are estimated to be lower at about 270,000 tons in each year. These estimates are somewhat higher than actual imports during the last four years, which are estimated to have averaged 180,000 tons. However, because the data used in this assessment are unreliable, these estimates could significantly misrepresent the actual situation.

Afghanistan's capacity to import food commercially is forecast to be negligible, based on the outlook for little improvement in export earnings over the next few years. Available data suggest that Afghanistan has purchased very little food on commercial terms since 1980. Status quo additional cereal needs are estimated at about 370,000 tons in both 1988/89 and 1989/90, and nutrition-based additional needs are estimated at about 265,000 tons.

Afghanistan basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	3,847	0	334	4,181	0	279	Wheat	49.7
1981/82	3,957	0	250	4,207	0	299	Rice	7.3
1982/83	3,967	0	276	4,243	0	311	Corn	14.6
1983/84	4,045	0	181	4,226	0	308	Total	71.7
1984/85	3,969	0	183	4,152	0	300		
1985/86	3,961	0	160	4,121	0	297		
1986/87	3,820	0	210	4,030	0	288		
1987/88	3,860	0	165	4,025	0	284		
1988/89	3,910	0						
1989/90	4,013	0						

Import requirements for Afghanistan

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	3,910	4,287	4,180	377	270	594
1989/90	4,013	4,389	4,281	376	268	598

Financial indicators for Afghanistan, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	705	889	53	341	652	1
1981	694	886	118	274	576	1
1982	708	962	134	258	574	1
1983	729	1,064	120	214	609	1
1984	633	1,390	126	229	507	1
1985	557	1,194	76	295	481	2
1986	552	1,404	86	259	466	3
1987	560	1,450	91	280	469	
1988	575	1,550	95	270	447	2
1989	580	1,600	95	270	442	2

Additional food needs to support consumption for Afghanistan, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	5	1	372	81	265	58
1989/90	6	1	370	70	262	50
Stock adjustment						
1988/89			0	0	0	0
1989/90			0	0	0	0
Total						
1988/89			372	81	265	58
1989/90			370	70	262	50
Maximum absorbable						
Cereal equivalent						
1988/89			372	81	265	58
1989/90			370	70	262	50

Bangladesh

The severe floods that inundated approximately three-quarters of the country during late August and September have receded, enabling assessment of damage to the rice crop. The 1988/89 rice harvest is now estimated at 14.6 million tons, down 5 percent from 1987/88. The current assessment suggests that damage was confined to a portion of the aman (summer-planted, fall-harvested) crop, which normally accounts for about half of total output.

Flood losses are expected to be partially offset, as they were last year, by replanting part of the aman crop, and by a record or near-record irrigated boro (fall-planted, spring-harvested) crop. Prospects for the boro crop, which accounted for a record 4.65 million tons (30 percent of the rice total) in 1987/88, are enhanced by good supplies of irrigation water and strengthened price incentives.

Prospects for the 1988/89 crops of wheat and oilseeds, both also grown during the winter, are boosted by good soil moisture and higher prices. However, competition with boro rice is expected to constrain wheat plantings and limit production to about 1.1 million tons, up 5 percent from 1987/88. The current crop assessments are dependent on favorable winter weather, and if poor weather should prevent anticipated gains, actual 1988/89 domestic food grain supplies could be significantly lower.

Government stocks of wheat and rice reached a record of nearly 1.5 million tons in July 1988, substantially above the stock target of 1.2-1.3 million tons. Stocks declined seasonally to 1.2-1.3 million tons by September 1988, but remained consistent with the target. Flood damage to food grain stocks is reported to be negligible--less than 5,000 tons. Although there were severe problems in distributing food during the floods, transportation problems apparently eased as the flooding receded.

Status quo import requirements for wheat and rice for 1988/89 are estimated at 4 million tons, while nutrition-based needs are estimated at 7.3 million tons. The discrepancy between the status quo and nutrition-based estimates indicates that status quo per capita consumption meets only about 85 percent of the nutritional target. Because of ample stocks, a portion of the increased import requirements can be met by drawing down stocks. The standard calculation indicates that stocks should be drawn down about 500,000 tons--reaching about 960,000 tons by July 1989. Given historical stock levels, a reduction to 800,000-950,000 tons is unlikely to pose a major threat to food security. Edible oil import needs for 1988/89 are estimated at 178,000 tons according to the status quo approach and 137,000 tons using the nutrition-based approach. The status quo estimate is probably a better indicator of needs because it accounts for recent gains in per capita oil consumption

Current data suggest that, although commercial import capacity will remain chronically weak, the floods have not had a major impact on Bangladesh's balance of payments. While the floods have slowed exports, these losses have been partially offset by corresponding interruptions in imports and substantial donor assistance in financing flood relief supplies. However, Bangladesh's typically large trade deficit is forecast to widen to about $1.6 billion in 1988/89, likely leading to a decline in foreign reserves.

Record purchases of wheat and rice on commercial terms (estimated at 1.05 million tons valued at $175-200 million) in 1987/88, a large portion on intermediate term credits, will contribute to weakness in the balance of payments. The brunt of the economic impacts of the floods are likely to be in the form of slowed economic growth, both in the short and long run, and a larger budgetary deficit that could slow development outlays.

Despite the setback in food grain production, commercial import capacity has not been assessed on the "emergency" procedure that allocates an historically high share of foreign exchange to commercial food imports. The "standard" procedure, which employs a 4-year average share, has been used because of Bangladesh's record outlays on commercial food grain imports in 1987/88. Use of the emergency procedure to assess additional needs in 1988/89 would imply diversion of development funds for consecutive years--a situation that is assumed to be inadvisable.

Using the standard calculation procedure, total commercial food import capacity is estimated at $366 million in 1988/89, sufficient to meet all edible oil import needs and a portion of cereal import needs. Status quo additional cereal needs are estimated at 2.2 million tons, after accounting for the calculated reduction of stocks. Maximum absorbable nutrition-based additional needs are estimated at 2.9 million tons.

Additional cereal needs are projected to fall in 1989/90, assuming normal weather allows a recovery in rice production. Additional cereal needs to support consumption are projected to drop to 1.7 million tons, with additional requirements for stock rebuilding dependent on actual stock adjustments in 1988/89.

Bangladesh basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	14,976	787	1,077	15,587	0	177	Wheat	8.8
1981/82	14,598	1,252	1,235	16,470	0	182	Rice	76.3
1982/83	15,311	615	1,817	17,117	0	184	Vegetable oils	2.2
1983/84	15,710	626	2,056	17,592	0	183	Total	87.3
1984/85	16,084	800	2,598	18,455	0	187		
1985/86	16,082	1,017	1,203	17,326	0	171		
1986/87	16,497	976	1,761	18,483	0	177		
1987/88	16,394	751	3,020	18,699	0	175		
1988/89	15,720	1,466						
1989/90	16,900	1,466						
Vegetable oils								
1980/81	56	18	125	146	0	2		
1981/82	54	53	133	189	0	2		
1982/83	55	51	116	159	0	2		
1983/84	55	63	154	193	0	2		
1984/85	55	79	220	221	0	2		
1985/86	54	133	307	317	0	3		
1986/87	74	177	337	378	0	4		
1987/88	82	210	310	378	0	4		
1988/89	82	224						
1989/90	85	224						

Import requirements for Bangladesh

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	15,720	19,760	23,050	4,040	7,330	4,850
1989/90	16,900	20,280	23,745	3,380	6,845	4,211
Vegetable oils						
1988/89	82	260	219	178	137	317
1989/90	85	267	225	182	140	324

Financial indicators for Bangladesh, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	1,364	2,795	269	249	1,095	19
1981	1,298	2,818	214	122	1,084	15
1982	1,545	2,589	263	358	1,282	9
1983	1,717	2,665	280	539	1,437	15
1984	1,697	3,011	415	395	1,282	19
1985	1,666	2,749	470	460	1,196	40
1986	2,067	3,033	567	686	1,500	16
1987	2,170	3,412	474	821	1,696	
1988	2,170	3,785	460	760	1,737	25
1989	2,484	3,715	600	820	1,985	25

Additional food needs to support consumption for Bangladesh, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	807	159	2,738	540	5,902	1,164
1989/90	1,064	182	1,586	271	4,903	838
Stock adjustment						
1988/89			(509)	(100)	(509)	(100)
1989/90			114	20	114	20
Total						
1988/89			2,229	440	5,394	1,064
1989/90			1,700	291	5,017	857
Vegetable oils						
1988/89	338	206	0	0	0	0
1989/90	386	236	0	0	0	0
Total						
1988/89		366		440		1,064
1989/90		418		291		857
Maximum absorbable						
Cereal equivalent						
1988/89			2,229	440	2,913	575
1989/90			1,700	291	2,382	407
Vegetable oils						
1988/89			0	0	0	0
1989/90			0	0	0	0

India

Benefiting from an excellent 1988 monsoon, 1988/89 kharif (spring-planted, fall-harvested) crops are estimated to have rebounded strongly from the 1987 drought. Rice production is estimated at a near-record 63 million tons, up 24 percent from 1987/88. Output could be higher than currently estimated if weather remains favorable for the October-November harvest, and for the late-sown crop in eastern India. Coarse grain production, which had been hampered by dry weather in key producing regions for 3 consecutive years, is estimated to be up 30 percent to nearly 30 million tons. Crops of corn, millet, and sorghum are all up sharply, and actual plantings and yields could also turn out to be larger than current estimates.

The 1988 wheat crop, harvested during April-May, is estimated at 45 million tons, down marginally from 1987. While irrigation prevented a major loss after the 1987 drought, poor planting moisture and persistent dry weather reduced plantings and yields for crops grown on unirrigated land. Production of pulses, grown almost entirely on unirrigated land, is estimated to be down 10 percent to 10.5 million tons because of dry winter weather.

Production of oilseeds and oils is expected to rebound to a record in 1988/89, the result of the favorable 1988 monsoon, strong producer price incentives, and government promotion efforts. Production of peanuts, the major oilseed, dropped to one of the lowest levels on record in 1987/88, but has rebounded sharply in 1988/89. Harvests of other kharif oilseeds, including soybean, cottonseed, and sunflower are also up. Good soil moisture and strong prices are also expected to benefit rabi (fall-planted, spring-harvested) crops of rapeseed and peanuts.

Edible oil production during 1988/89 is estimated at a record 3.8 million tons, up 21 percent from the drought-affected 1987/88 outturn. The production recovery, coupled with large allocations of imported oils to the vanaspati (hydrogenated oil) industry and the Public Distribution System (PDS) through mid-1988, have eased the pressure on domestic edible oil prices evident during late 1987 and early 1988.

Government stocks of wheat and rice dropped sharply from 23.3 million tons in July 1987 to about 11.8 million in July 1988. July 1988 stocks, consisting of about 7.6 million tons of wheat and 4.2 million of rice, were roughly consistent with targets on July 1. However, buffer stocks--targeted at 10 million tons--were negligible. The drop in government stocks was the result of reduced domestic procurement from the poor 1987/88 harvests, and record distribution of wheat and rice to stabilize open-market prices and provide relief for drought-affected areas.

The distribution measures have been highly effective in stabilizing domestic food grain prices in the aftermath of the drought. In order to begin replenishing stocks, the Government initiated commercial imports of wheat and rice in the spring of 1988, and the bulk of imports are expected to fall in the 1988/89 year. About 2 million tons of wheat and 800,000 tons of rice have been purchased so far. Wheat imports are expected to reach 4-5 million tons, but rice imports are likely to be constrained by tight world supplies through late 1988.

Status quo cereal import needs for 1988/89 are estimated to be down sharply to about 2.8 million tons because of the recovery in production. Nutrition-based import requirements are estimated at 12.5 million tons, reflecting a gap of about 6 percent between status quo per capita consumption and the nutritional target.

On top of consumption needs, the stock adjustment calculation allows for 2.9 million tons of stock rebuilding in 1988/89. This may be an underestimate of actual rebuilding of stocks.

In line with the production recovery, status quo edible oil import needs are estimated to be down about a third to 1.2 million tons in 1988/89, with nutrition-based needs down to about 1 million tons. Status quo and nutrition-based estimates of pulse import needs, both at 2.5 million tons, remain high because the drought-damaged spring 1988 crop will be the main source of domestic supplies during 1988/89.

India's balance of payments has, so far, weathered the drought in better shape than expected earlier, primarily because of strong export performance in 1987/88. However, a very tight balance-of-payments position is a serious concern of Indian policymakers, and continues to be managed very carefully. The key problem is coping with the growth associated with gradual import liberalization measures, together with rising debt obligations--particularly the repayment schedule for a $5-billion IMF loan that extends through 1990.

A significant portion of drought-related export losses and import needs, including most food grain imports, will fall in 1988/89, leading to continued pressure on foreign reserves. Growth in foreign exchange earnings is expected to slow to about 12 percent in 1988/89. Further gains will be partially offset by sluggish gains in worker remittances resulting from economic slowdown in the Middle East. Import growth is forecast at about 10 percent, assuming that import liberalization measures are maintained. Financial assistance from some donors, particularly the World Bank and Japan, provided some support for the balance of payments in 1987/88. However, most, if not all, cereal, pulse, and edible oil imports in 1988/89 are likely to be on commercial terms.

Because most of India's drought-required imports of food grains will actually occur in 1988/89, India's capacity to import food commercially in 1988/89 is calculated using the "emergency" import capacity procedure. Using this procedure, commercial import

capacity is calculated by allocating forecast foreign exchange availability to food imports based on the highest proportion that was spent on commercial imports since 1977. Using this approach, total capacity to import cereals, edible oils, and pulses in 1988/89 is estimated at about $1.9 billion.

With this estimate, status quo additional cereal needs for both consumption and stock building will be negligible in 1988/89. Maximum absorbable nutrition based needs are estimated at 9.3 million tons, including 2.9 million of stock building. Additional edible oil needs are estimated to be negligible using both approaches. However, additional needs for pulses, at 1.1 million tons using the status quo approach and 2.4 million using the nutrition based approach, are estimated to be substantial. These amounts are unlikely to be available in world markets, but their key role as a protein source in Indian diets might be met with other protein-rich foods.

Additional needs for all commodities are projected to fall to zero in 1989/90, assuming normal weather. With normal weather, 1989 harvests of wheat and pulses should recover, while harvests of rice, coarse grain, and oilseeds achieve trend growth. Additional cereal import needs for stock building are possible in 1989/90, although this will depend heavily on how much building is actually achieved in 1988/89, as well as the size of 1989/90 harvests.

India basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	113,810	17,743	(835)	113,126	2,320	168	Wheat	18.5
1981/82	120,949	15,272	1,546	118,347	2,420	171	Rice	33.2
1982/83	112,446	17,000	3,477	112,409	2,420	160	Corn	3.1
1983/84	136,831	18,094	3,085	130,656	2,620	181	Sorghum	5.8
1984/85	135,261	24,734	(161)	127,317	2,620	173	Millet	5.2
1985/86	133,690	29,897	(605)	131,551	2,720	175	Barley	0.7
1986/87	134,041	28,711	(635)	135,427	2,710	176	Pulses	5.8
1987/88	119,605	23,780	610	129,334	2,491	165	Vegetable oil	6.3
1988/89	137,800	12,170					Total	78.7
1989/90	143,825	12,170						
Vegetable oils								
1980/81	2,668	180	1,293	3,981	0	6		
1981/82	3,392	160	962	4,434	0	6		
1982/83	2,974	80	1,259	4,163	0	6		
1983/84	3,376	150	1,697	4,833	0	7		
1984/85	3,775	390	1,357	5,172	0	7		
1985/86	3,306	350	1,204	4,560	0	6		
1986/87	3,298	300	1,525	4,753	0	6		
1987/88	3,157	370	1,880	5,057	0	6		
1988/89	3,810	350						
1989/90	3,900	350						
Pulses								
1980/81	8,572	0	173	8,595	150	13		
1981/82	10,627	0	128	10,605	150	15		
1982/83	11,507	0	150	11,507	150	16		
1983/84	11,857	0	300	12,057	100	17		
1984/85	12,893	0	200	12,993	100	17		
1985/86	11,962	0	300	12,212	50	16		
1986/87	13,361	0	300	13,611	50	17		
1987/88	11,737	0	500	12,197	40	15		
1988/89	10,500	0						
1989/90	13,000	0						

Import requirements for India

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	137,800	140,641	150,297	2,841	12,497	27,921
1989/90	143,825	143,498	153,841	(327)	10,016	24,902
Vegetable oils						
1988/89	3,810	5,027	4,843	1,217	1,033	1,851
1989/90	3,900	5,129	4,942	1,229	1,042	1,875
Pulses						
1988/89	10,500	13,066	13,044	2,566	2,544	3,734
1989/90	13,000	13,331	13,554	331	554	1,523

Financial indicators for India, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	Million dollars					Percent
1980	15,150	17,977	1,292	6,858	13,858	6
1981	14,423	17,682	1,377	4,461	13,046	8
1982	14,255	17,236	1,629	4,965	12,626	7
1983	14,905	17,742	2,621	5,847	12,284	11
1984	15,170	18,324	2,629	6,110	12,241	14
1985	15,952	20,920	3,795	6,657	11,557	9
1986	16,935	20,922	5,319	6,729	11,616	5
1987	19,459	23,527	6,022	6,364	13,437	
1988	21,800	25,800	6,200	6,300	13,931	14
1989	23,700	27,900	6,400	6,300	14,983	9

Additional food needs to support consumption for India, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	2,347	477	0	0	6,396	1,301
1989/90	999	176	0	0	6,615	1,166
Stock adjustment						
1988/89			2,943	599	2,943	599
1989/90			0	0	1,962	346
Total						
1988/89			196	40	9,339	1,899
1989/90			0	0	8,577	1,512
Vegetable oils						
1988/89	2,379	1,350	0	0	0	0
1989/90	1,789	1,015	0	0	0	0
Pulses						
1988/89	177	76	1,093	471	2,368	1,021
1989/90	336	140	0	0	218	90
Total						
1988/89		1,904		511		2,920
1989/90		1,331		0		1,602
Maximum absorbable						
Cereal equivalent						
1988/89			196	40	9,339	1,899
1989/90			0	0	8,577	1,512

Nepal

Cereal production is estimated at 3.14 million tons in 1988/89, about the same as the good harvest of 1987/88. Damage from floods and a major earthquake in the Terai (plains) late in the growing season are reported to have had only minor impacts. Rice production is estimated at 1.6 million tons, up slightly from 1987/88, and the actual outturn could be somewhat higher if weather remains favorable. Both wheat and corn production are estimated to be down marginally from record harvests in 1987/88, but also could be improved by good winter weather. Growth in food grain production, however, continues to lag behind population, particularly in the hill regions, because of constraints on planting new land and adopting improved technology in the mountainous terrain.

Since the early 1980's, Nepal has gradually shifted from being a net exporter of cereals to neighboring areas of India to a small net importer. For 1988/89, status quo cereal import needs are estimated at 245,000 tons, well above actual imports in recent years. Nutrition-based imports are estimated to be more than three times as high at 834,000 tons, indicating a large gap between recent per capita consumption and recommended minimum caloric intake. Status quo per capita consumption meets about 85 percent of the nutritional target.

Although Nepal's capacity to import food commercially remains very small, there has been some improvement in the balance of payments in 1987 and 1988. Export performance improved markedly in 1987, primarily because of sales of garments and carpets, and 10-12 percent growth in export volume is expected in 1988 and 1989.

Imports were also up in 1987, and are expected to expand 5-6 percent annually in 1988 and 1989, because of more rapid disbursement of project aid. Recent growth in debt service stems from IMF repayments for the 1985 standby arrangement, and is not expected to continue. Inflows of private capital and grants led to a surge in foreign reserves in 1987, but reserves are likely to decline somewhat in 1988 and 1989.

Because of very limited commercial import capacity, estimates of 1988/89 additional cereal needs are about the same as import requirements: status quo additional needs are

estimated at 236,000 tons and nutrition-based needs at 825,000 tons. The standard calculation procedure indicates that about 513,000 tons of cereal imports can be absorbed by the Nepalese economy. However, severe constraints on transportation in the rough terrain probably restrict handling capacity to only 100,000-200,000 tons. Current projections, assuming normal weather, indicate little change in additional needs in 1989/90.

Nepal basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1980/81	2,824	0	(26)	2,798	0	187	Wheat	10.9
1981/82	2,935	0	(42)	2,893	0	188	Rice	49.5
1982/83	2,464	0	83	2,547	0	162	Corn	19.6
1983/84	3,256	0	(16)	3,190	50	201	Total	80.0
1984/85	3,258	0	(49)	3,209	0	194		
1985/86	3,275	0	25	3,300	0	195		
1986/87	3,046	0	25	3,071	0	177		
1987/88	3,151	0	0	3,151	0	177		
1988/89	3,140	0						
1989/90	3,230	0						

Import requirements for Nepal

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1988/89	3,140	3,385	3,974	245	834	522
1989/90	3,230	3,468	4,070	238	840	522

Financial indicators for Nepal, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available Total	Foreign exchange available Share to major food imports
	Million dollars					Percent
1980	272	419	4	183	268	1
1981	314	459	5	202	309	4
1982	266	493	6	199	260	4
1983	281	558	8	133	273	7
1984	294	507	11	82	283	5
1985	323	564	16	56	307	3
1986	324	553	31	87	293	2
1987	386	650	43	178	343	
1988	410	700	45	150	391	3
1989	430	730	50	150	395	3

Additional food needs to support consumption for Nepal, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	Million $	1,000 tons	Million $	1,000 tons	Million $
Cereal equivalent						
Consumption						
1988/89	9	3	236	71	825	249
1989/90	10	3	228	60	830	217
Stock adjustment						
1988/89			0	0	0	0
1989/90			0	0	0	0
Total						
1988/89			236	71	825	249
1989/90			228	60	830	217
Maximum absorbable						
Cereal equivalent						
1988/89			236	71	513	155
1989/90			228	60	511	134

GLOSSARY OF TERMS

Status quo	A measure of per capita food availability in recent years
Nutrition-based	Per capita food availability sufficient to meet internationally accepted minimum caloric standards
Cereal equivalent	Cereal required to meet both cereal shortfalls and cereal equivalent
Import requirement	Imports necessary to achieve either status quo or nutrition-based food availability, including both commercial and concessional food shipments
Rice	Milled, unless otherwise noted
Tons	Metric tons
Dollars	US dollars unless otherwise specified
GNP	Gross national product
GDP	Gross domestic product

APPENDIX A

REGIONAL NEEDS ASSESSED BY FULL AND REDUCED FNA ANALYSIS

The number of countries included in the *World Food Needs and Availabilities* has been reduced from 69 to 55. This has been done so as to allocate resources for food needs analysis to those countries which are the most likely recipients of a significant quantity of U.S. food assistance. The criteria for continued inclusion was share of U.S. food assistance, share of calculated food needs, and the year-to-year change in the share of food aid in food imports. The 14 countries excluded contributed 6.5 percent of 1987/88 status quo import requirements, and less than 5 percent of assessed status quo and 2.9 percent of nutrition-based additional food needs to meet consumption requirements. Excluded countries contributed less than 1 percent of 1987/88 cereal needs in Sub-Saharan Africa. For detailed analysis of the reduced country coverage, see Appendix A of the August 1988 report.

To improve on the currency of analysis and to facilitate work scheduling, the needs of countries are analyzed fully once each year at the time information on current crop production becomes available. The food needs of countries yet to be fully analyzed are ascertained through a partial analysis so as to maintain regional and total additional food needs. In the summary of this report the regional results are present without regard to whether countries within regions were subject to full or partial FNA analysis. The following table presents the share of cereal needs derived from the full and the partial analysis for each region. The sub-regional country groupings for Africa have been revised from the previous. The Central Africa regional summary is no longer prepared. The former Central African countries still assessed are Angola, Central African Republic (C.A.R.) and Zaire. The C.A.R. and Zaire are now included in the East Africa total and Angola is included in the Southern Africa total.

Regional additional cereal needs assessed by full and partial FNA analysis, 1988/89 [1]

Region	Commercial Import Capacity	Status quo				Nutrition-based			Maximum Absorbable
		Import Requirements	Total use	Consumption	Consumption + stocks	Total use	Consumption	Consumption + stocks	
North Africa									
F	8,506	13,002	28,245	4,631	5,289	25,637	2,032	2,682	5,289
P	0	0	0	0	0	0	0	0	0
Total	8,506	13,002	28,245	4,631	5,289	25,637	2,032	2,682	5,289
Sub-Saharan									
F	1,685	3,310	40,446	2,540	3,455	44,570	6,064	7,140	5,951
P	1,158	3,110	21,444	2,211	2,604	26,155	6,681	7,066	5,439
Total	2,843	6,420	61,890	4,751	6,059	70,725	12,745	14,206	11,390
West Africa									
F	381	693	6,833	320	366	8,009	1,490	1,543	1,172
P	866	995	7,940	388	424	8,955	1,161	1,190	1,162
Total	1,247	1,688	14,773	708	790	16,964	2,651	2,733	2,334
East Africa									
F	555	966	22,258	910	1,329	23,160	1,627	2,044	2,055
P	292	2,115	13,504	1,823	2,180	17,200	5,520	5,876	4,277
Total	847	3,081	35,762	2,733	3,509	40,360	7,147	7,920	6,332
Southern Africa									
F	749	1,651	11,355	1,310	1,760	13 401	2,947	3,553	2,724
P	0	0	0	0	0	0	0	0	0
Total	749	1,651	11,355	1,310	1,760	13,461	2,947	3,553	2,724

1 Rows labeled (F) are based on application of the full FNA analysis. Rows labeled (P) are based on partial analysis.

Regional additional cereal needs assessed by full and partial FNA analysis, 1988/89, (continued)

Region	Commercial Import Capacity	Status quo				Nutrition-based			Maximum Absorbable
		Import Require-ments	Total use	Consump-tion	Consump tion + stocks	Total use	Consump-tion	Consump-tion + stocks	
Asia									
F	5,958	13,516	240,405	5,964	6,660	252,437	15,025	17,963	16,378
P	1,297	1,372	12,496	0	137	13,553	1,003	1,193	1,135
Total	7,255	14,888	252,901	5,964	6,797	265,990	16,028	19,156	17,513
South Asia									
F	4,203	9,906	189,311	4,239	4,429	203,547	14,405	17,343	14,147
P	0	0	0	0	0	0	0	0	0
Total	4,203	9,906	189,311	4,239	4,429	203,547	14,405	17,343	14,147
Southeast Asia									
F	1,755	3,610	51,094	1,725	2,231	48,890	620	620	2,231
P	1,297	1,372	12,496	0	137	13,553	1,003	1,193	1,135
Total	3,052	4,982	63,590	1,725	2,368	62,443	1,623	1,813	3,366
Latin America									
F	0	0	0	0	0	0	0	0	0
P	1,723	3,926	11,145	2,118	2,328	12,029	2,999	3,208	3,072
Total	1,723	3,926	11,145	2,118	2,328	12,029	2,999	3,208	3,072
Caribbean									
F	0	0	0	0	0	0	0	0	0
P	450	1,195	2,368	681	734	2,450	769	820	838
Total	450	1,195	2,368	681	734	2,450	769	820	838
Central Amer.									
F	0	0	0	0	0	0	0	0	0
P	229	826	3,696	576	655	4,019	891	970	949
Total	229	826	3,696	576	655	4,019	891	970	949
South America									
F	0	0	0	0	0	0	0	0	0
P	1,044	1,905	5,081	861	939	5,560	1,339	1,418	1,285
Total	1,044	1,905	5,081	861	939	5,560	1,339	1,418	1,285
Global	20,327	38,236	354,181	17,464	20,473	374,381	33,804	39,252	37,264

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