

Sub-Saharan Africa

Fifty-four percent of Sub-Saharan Africa's population is estimated to be hungry in 2002. This share is not projected to change during the next decade. Growth in food crop production is projected to nearly match that of population. [Stacey Rosen]

Similar to the last 20 years, per capita food consumption in Sub-Saharan Africa (SSA) is projected to stagnate during the next decade. Domestic production will continue to be the major component—roughly 90 percent—of the region's food supplies. Production growth of 2.4 percent per year is expected to fall just short of population growth during the next decade. This rate of growth is very close to that projected for the Asian countries included in this report and well above that for the Latin American region.

The region's food gap to maintain per capita consumption levels is projected to jump from 6.4 million tons in 2002 to 9.7 million tons in 2012. It is important to note, however, that this gap is expected to decline significantly in 2003—to 1.6 million tons—and is not projected to reach the estimated 2002 level again until 2009. The estimated nutritional gap in 2002 is 15.7 million tons, and gaps through the remainder of the decade are projected to be smaller. The estimates for 2002 are based on actual data and therefore include emergency needs that result from production shortfalls. In this case, the gap in 2002 is driven by an estimated 4.5-percent drop in grain production, resulting from poor weather conditions in East and Southern Africa.

SSA's distribution gap—the amount of food needed to raise consumption of each income group to the nutritional requirement—is estimated at nearly 20 million tons for 2002. This gap is 25 percent higher than the national level nutrition gap. On average, consumption in only the two highest income quintiles exceeds the nutritional requirement throughout the region. Consumption in the highest income group is estimated at 120 percent of the nutritional target. Conversely, consumption in the lowest income group is estimated at 81 percent of the target. Results vary considerably by country. In 6 of the region's 37 countries—all in West Africa—consumption meets or exceeds the nutritional target in all income quintiles. In 8 countries—Democratic Republic of Congo, Burundi, Eritrea, Ethiopia, Sierra Leone, Somalia, Zambia, and Zimbabwe—estimated consumption in 2002 falls short of the target in all income quintiles if external aid is not increased substantially. With the exception of

Zambia, these countries have one major factor in common—all have been affected by civil unrest in the recent past.

These distribution results can be translated into numbers of hungry people (that is, those who cannot meet the nutritional target). Hunger in SSA affects an estimated 337 million people, or 54 percent of the region's population. This amounts to a third of the total number of hungry people included in this 70-country study, despite the fact that SSA's share of the population of the 70 countries is only 23 percent. The region's share of hungry people is projected to remain unchanged in 2012. However, when examining the situation relative to other regions in the study, the outlook changes considerably. SSA's share of hungry people of all 70 countries is projected to rise to 60 percent—more than double its share of overall population. These results indicate that the share of hungry people within the region is projected to stabilize, but in fact the situation is worsening when compared with other regions in the study. The number of hungry people in SSA is increasing along with population growth, while the numbers in other regions are projected to decline.

Since most of SSA's food crops are rainfed, production variability can be large. Variation in grain production, as measured by the coefficient of variation, remained mostly unchanged at 18 percent from the 1980s to the 1990s. Accordingly, in any given year, production in the period could have been 18 percent higher or lower than trend levels, on average, in the region.

Because of the region's high degree of vulnerability with respect to food security, shortfalls have even more of an effect on production than overall variation. On average, SSA experienced a shortfall of 10-19 percent 2.6 times between 1991 and 2001. In other words, production in a given country in the region fell between 10 and 19 percent below trend more than once every 4 years between 1991 and 2001. Shortfalls greater than 20 percent occurred only 1.4 times, on average, during the same time period. However, 10 of the region's 37 countries experienced these shortfalls

Table 3—Food availability and food gaps for Sub-Saharan Africa (SSA)

Year	Grain production	Root production (grain equiv.)	Commercial imports (grains)	Food aid receipts (grains)	Aggregate availability of all food
1993	60,862	39,687	10,211	2,564	130,317
1994	65,049	40,111	8,862	3,180	135,274
1995	65,825	40,441	8,052	2,531	136,944
1996	68,978	41,434	9,440	2,073	141,036
1997	64,653	42,877	10,333	1,788	141,014
1998	67,860	45,454	12,598	2,546	147,821
1999	68,838	47,134	11,206	2,169	151,025
2000	68,416	48,238	12,800	2,697	156,090
2001	72,706	48,608	15,628	2,642	166,025
Projections				Food gap	
				SQ	NR
2002	68,395	49,820	14,296	6,437	15,726
2007	85,912	54,372	15,617	4,446	11,308
2012	97,897	59,273	17,293	9,711	14,067

Sub-Saharan Africa
(629 million people in 2002)

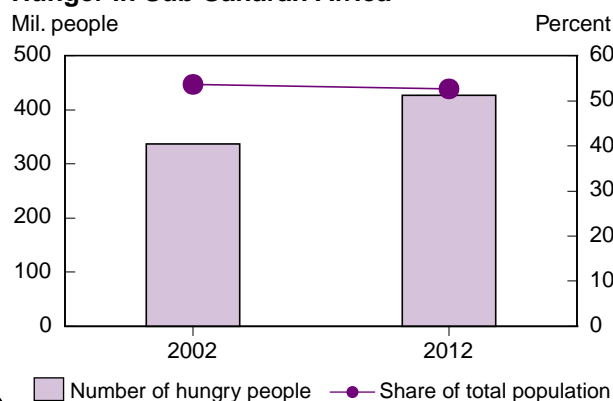
Growth in food crop production will nearly match that of population.

Imports will continue to play a minor role in total food supplies.

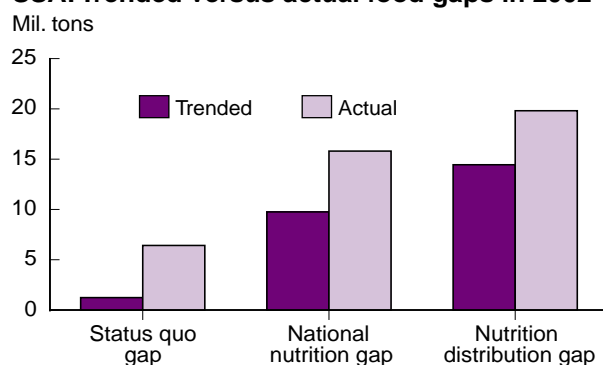
At the regional level, per capita consumption is projected to virtually hold steady through the next decade; however, it will decline in 22 of the 37 countries.

The number of hungry people in the region is projected to rise from 337 million in 2002 to 427 million in 2012; more than half the population is projected to be hungry in 2012.

Hunger in Sub-Saharan Africa



SSA: Trended versus actual food gaps in 2002



Sub-Saharan Africa: Food aid

	Total food aid received		Food aid per capita		Highest food aid amount received		Food aid as % of imports	
	1980-90	1991-2000	1980-90	1991-2000	1,000 tons	Year	1980-90	1991-2000
	1,000 tons		Kg				Percent	
SSA	38,147	30,972	24	12			45	17
Ethiopia	5,139	5,335	11	8	965	2000		
Madagascar	1,042	347	9	2	214	1986	51	24
Sengal	1,232	308	18	3	185	1983	21	4
Sudan	6,051	2,491	25	8	1,001	1984	99	32
Tanzania	1,633	542	7	2	416	1981	60	16
Zimbabwe	370	1,105	4	9	896	1992	41	28

Source: FAOSTAT, ERS calculation.

Southern Africa

Food production in Southern Africa is characterized by high variability relative to other regions around the world. One measure of variation is the coefficient of variation, which quantifies how far observations are dispersed around an average for a sample of data. For the Southern African countries covered in this report, the coefficient of variation for grain production was 29 during the last two decades. Accordingly, grain production, on average, will fall 29 percent below or rise 29 percent above trend levels in any given year. In other words, food supplies tend to be available in either booms or busts, particularly for those countries that depend primarily on domestic food production for their food supplies.

At the time of this report, Southern Africa is again experiencing production shortfalls. In 2001-02, drought has been the principal factor behind significant shortfalls in several Southern African countries. This problem has worsened stock levels that are low due to low production levels in 2001 and 2002. A combination of increased commercial imports and food aid will be needed to compensate for the shortfalls. South Africa, whose production rose about 20 percent, is expected to supply much of the commercial import requirement in the region. However, it is important to note that these exports have precipitated a sharp rise in prices in South Africa.

The combination of low production and stock levels has led to unusually high prices. On average in the region, prices of basic commodities, most notably corn, more than tripled from April 2001 to March 2002.

Production shortfalls were most severe in Zimbabwe, Zambia, and Malawi. In Zimbabwe, the problem has been aggravated by poor government policies. Since March 2000, the country's government has targeted 95 percent of White-owned land for confiscation and redistribution to Blacks. Prior to these land seizures, 4,500 White farmers owned a third of Zimbabwe's farmland while 7 million Blacks lived on the remainder. An estimated 350,000 Blacks live and work on White-owned land. Robert Mugabe, President of Zimbabwe, claims that the new policy is intended to correct a colonial injustice that left 70 percent of the best farmland to White farmers. According to critics of the policy, much of the prime

land confiscated from Whites during the last 2 years has gone to politicians, police officers, and other friends of the government, not to landless Blacks as promised. In May 2002, 2,900 of the country's 4,500 White farmers were given a deadline to surrender their land—without compensation—by August 8 or face a fine and up to 2 years in prison. Nearly two-thirds of these farmers defied the deadline and about 200 of them were arrested.

The country's grain production is estimated at 840,000 tons in 2001, down 55 percent from 2000. Corn output was cut by nearly two-thirds. This shortfall translates into a large import requirement that will be difficult to meet because of the current poor economic position of the country. Foreign exchange earnings from cotton and tobacco, the major export crops, are likely to fall because these crops are produced by commercial farmers who have been driven off their land. Moreover, the government maintains cumbersome policies that worsen the situation. The government's trade restrictions prevent the private sector from importing corn and wheat and preclude its participation in the local marketing of these commodities. In addition, the government maintains a huge subsidy for consumers. As of summer 2002, commercial imports of corn cost \$265 per ton. The government sells the corn at \$40, which translates into a subsidy of \$225. Zimbabwe's consumption of corn is estimated at 5,000 tons per day, thus representing a total subsidy of more than \$1 million per day. In the local markets, corn sells for nearly five times the official government price. Lastly, Zimbabwe is also troubled by a high prevalence of HIV/AIDS, which afflicts roughly a third of the country's population. The disease has intensified poverty in the country through productivity and job losses and makes economic recovery even more difficult.

Zambia has also been adversely affected by drought, albeit to a lesser extent than Zimbabwe. In 2002, production of corn—the staple crop—is estimated to have fallen 23 percent from the 2001's below-average harvest. Corn prices increased more than threefold in some markets during the season. The shortfalls, however, are localized and therefore manageable.

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Informal trade links with Mozambique and Tanzania should help alleviate the need for formal imports to cover much of the shortfall. The country has rejected shipments of U.S. emergency food assistance because it contains genetically modified corn, sparking considerable debate across Southern Africa countries about whether it is more important to feed people now or guard against possible adverse health and environmental effects in the future from introducing this product.

Like Zambia, Malawi is experiencing a second consecutive below-average harvest. Corn production in 2002 fell to 1.5 million tons, 10 percent below 2001's poor harvest. Corn output averaged more than 2.2 million tons per year in the late 1990s. The production decline was due to erratic rainfall, long dry periods, and reduced supplies of agricultural inputs. In some markets, prices for corn have soared as a result, peaking early in 2002 at five to six times higher than in 2001. As an indication of the severity of the problem, Malawi's Ministry of Agriculture has estimated that 4 percent of this year's corn crop was consumed in its green stage—1 to 2 months prior to maturation.

In Lesotho, grain production, which had fallen by more than half between 1999 and 2000, fell another

30 percent in 2001. The latest decline is due to a sharp drop in area planted that reflects the heavy rains during the planting period. Water-logged soils took a long time to drain and dry.

Corn production did rise in Angola and Mozambique. Angola was spared the drought that afflicted many other countries in the region. However, many people continue to experience food insecurity as agricultural activities during the growing season were disrupted by the escalation of conflict in the country's civil war. FAO estimates that 4 million people have been displaced from their homes since 1998. The country's total population is 14 million. Roughly half of the displaced people have been given land and as a result many of them are no longer receiving food aid. A cease-fire agreement between the government and rebel groups was signed in April 2002 following 27 years of civil war. This action permitted the opening of roads previously closed due to the war, and therefore allowed for improved access to relief supplies for vulnerable groups.

In Mozambique, severe dry spells adversely affected crops in the southern region and in parts of the central region of the country. However, in the north, the main growing region, rains were plentiful and well distributed, resulting in a more than 10-percent increase in grain production.

three or more times, with the worst shortfalls hitting Somalia, Swaziland, Zambia, Cape Verde, and Liberia.

For individual countries, variability can be quite extreme. Grain production in about half of the countries was cut by more than a third in any given year during the last two decades. Thirty-one of these countries suffered shortfalls exceeding 20 percent at least once during the past 20 years; 13 of these countries experienced such a shock more than once every 4 years. For countries experiencing slow or declining production trends, especially those facing political instability, weather-induced shortfalls can have serious food security implications. Per capita production growth was negative in 7 of these 13 countries. Exacerbating the problem in this region is the limited availability of foreign exchange to increase food imports and compensate for the shortfalls.

Examining the variability in individual countries helps illustrate the implications of these shortfalls. Model-based scenarios were run where production in 2003 was reduced by the amount of the largest shortfall in each country in recent decades. For example, in Angola, the largest shortfall during the last 20 years was 39 percent (in 1990). When the projected production for 2003 was reduced 39 percent, Angola's status quo food gap jumped from 82,000 tons to 1 million tons. The increase in the country's nutritional gap was also significant—from 233,000 tons to nearly 1.2 million tons. Commercial imports could be increased to compensate and augment food supplies. However, in the case of most Sub-Saharan countries, financial constraints preclude this response. Under this scenario, commercial imports in Angola increased roughly 10 percent, or less than 40,000 tons. Food aid can also help to fill the food gap. Angola received an average of

136,000 tons of food aid per year during the last 20 years. The largest amount the country ever received in 1 year was 230,000 tons. These amounts of aid pale in comparison to the size of the food gaps. However, even if donors offered larger amounts of food aid, the food gap may still not be improved. Angola's capacity to absorb large amounts of food aid is severely constrained by inadequate transportation networks and insufficient storage facilities. Again, the situation is exacerbated by the fact that the country is already vulnerable with respect to food security. Per capita production has declined more than 1 percent per year during the last 20 years, as Angola has been fraught with civil strife. This exercise clearly illustrates that famine conditions can emerge with the convergence of declining production trends, high production variability, and civil unrest.

Model results are also extreme in the cases of Zambia and Zimbabwe. Under the base scenario, these countries are projected to have no status quo gap for 2003—meaning that food supplies are expected to be adequate to maintain base per capita consumption levels. However, when the production shortfall is applied (50 percent for Zambia and 67 percent for Zimbabwe), the status quo gap soars to nearly 1 million tons for Zambia and roughly 1.6 million for Zimbabwe. Consequently, while food gaps may be

small or even zero for some countries, production shocks—which are frequent in some of these countries—can result in huge food deficits.

While SSA's food security situation does not appear to be improving, significant efforts made with respect to economic policy reform and political stability in the region may alter potential outcomes. In July 2002, the former Organization of African Unity was disbanded and a new African Union (AU) was created, comprising 53 member countries. The AU's mission is to combat poverty, conflict, and corruption—three common characteristics in the region. Continued struggles for power that dominate the region fuel skepticism about the Union's potential for success. While longstanding conflicts in Sierra Leone and Angola have been resolved, those in Burundi, Somalia, Sudan, Liberia, and the Democratic Republic of Congo continue. Ongoing peace negotiations, however, are positive signs. South Africa is leading negotiations on Congo and Burundi. Kenya is heading up talks in Sudan and Somalia. The New Partnership for Africa's Development, an economic action plan endorsed by the AU, calls on governments to end their civil wars and human rights violations to encourage foreign assistance and investment. Optimism, however, should be tempered. Decades of conflict have produced levels of hostility that will take some time to dissipate.