

Food Price Watch



POVERTY REDUCTION AND EQUITY GROUP
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Main Messages

More than 12 million people are in urgent need of humanitarian assistance in the Horn of Africa as a result of a devastating drought, and conflict, civil unrest, and displacement in Somalia. The acute malnutrition rate in some areas of Somalia has exceeded 40 percent among children under five years of age. The disaster has hit the most vulnerable. In Somalia, out of 3.7 million people in crisis, 3.2 million are in urgent need, and 2.8 million of these people are in the south. Domestic food prices have been soaring in the region. Prices of the two major commodities, red sorghum and white maize, have increased by between 30 to 240 percent in Somalia.

Global prices of food in July 2011 remain significantly higher than their levels in July 2010 and close to the 2008 peak levels, with the World Bank Food Price Index increasing by 33 percent in the last year. Prices for the period April to July 2011 have declined slightly from their peak in February, although prices remain volatile for specific commodities such as rice, maize, and wheat. Prospects for the overall supply of food have improved since April 2011, but several sources of uncertainty remain. Global stocks still remain alarmingly low. For example, the stocks-to-use ratio for maize currently stands at 13 percent, the lowest since the early 1970s. At these low stock levels, even small shortfalls in yields can have amplified effects on prices.

Domestic food prices continue to fluctuate widely. The annual price changes in maize in the 12 months up to June 2011 ranged from increases of more than 100 percent in Kampala (Uganda) to reductions of 19 percent in Port-au-Prince (Haiti) and Mexico City. Domestic prices of some staples have increased sharply in Central and South America and East Africa. For example, maize prices in the Dominican Republic and Colombia increased by 82 and 25 percent, respectively, between April and June 2011.

Vulnerability to high food prices depends on a number of factors specific to each country and the impact can vary substantially among population groups within the same country. Therefore, an effective response needs to balance emergency interventions for the most vulnerable with longer-term initiatives, and differentiate between those who are at severe risk from those less affected. An integrated agricultural, food security, poverty, and climate agenda needs to be put in place. Managing long-term risks will also require monitoring prices of food regularly.

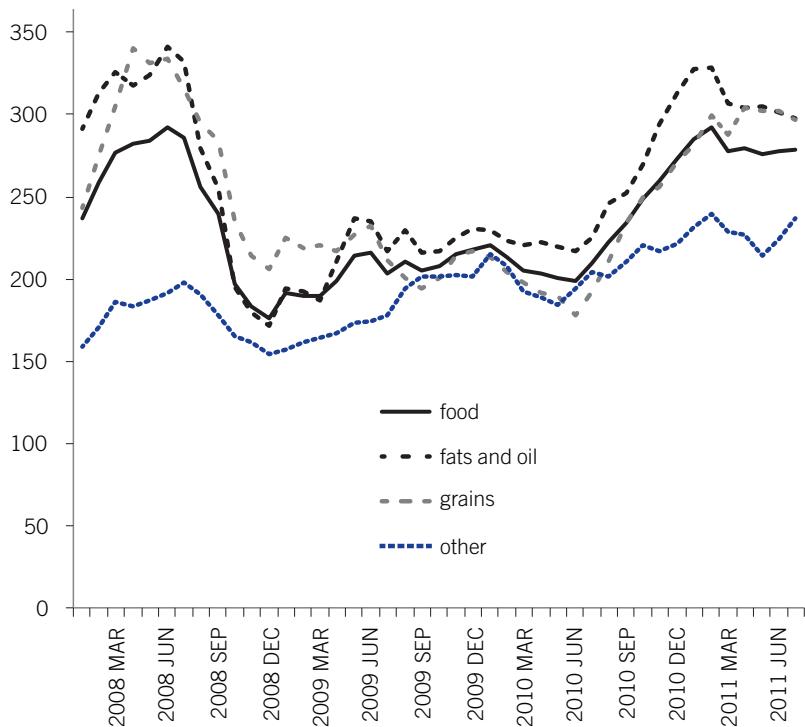
Food Price Trends

Global food prices in July 2011 remain significantly higher than their levels in July 2010. On average, the World Bank Food Price Index remains 33 percent above its level a year ago. Similarly, price levels of a number of major commodities are higher than their levels in July last year, for example, maize (84 percent), sugar (62 percent), wheat (55 percent),

and soybean oil (47 percent). Crude oil prices remain 45 percent higher than a year ago and the price of fertilizers increased by 67 percent over the same period.

Prices have declined slightly after peaking in February 2011, although prices remain volatile for specific commodities. After peaking in February 2011, the World Bank Food Price Index for the period April to July averaged

Figure 1. World Bank Food Price Index



Source: World Bank DECPG.

278.3, or roughly 5 percent below the price index in February (see figure 1). This has been accompanied by modest declines in the prices of the major components of the index in July from their February averages: grains (1 percent), fats and oil (9 percent) and the “other” food category (1 percent), which includes meat, fruits, and sugar (see table 1). However, these averages conceal volatility within this period. For example, maize and wheat prices declined in June and then increased in the first half of July. The price of rice fell from February to May, but has since increased.

Since the previous issue of the Food Price Watch in April 2011, prospects for the overall supply of food have improved. Wheat prices have been on a decline over the last quarter due to good winter yields in Europe and the United States. The Russian Federation’s improved harvest and lifting of the ban on its export of wheat along with the suspension of Ukraine’s export quotas have given an additional boost to supply in international markets. Similarly, despite downward revisions to anticipated maize production in the United States on account of the unusually high temperatures and low precipitation in July across the maize producing region, global output of grains in 2011/2012 is projected to be 3 percent higher than estimated output for 2010/2011.¹

Better yields are expected in Argentina and Brazil, where maize production was unusually impacted by the La Niña–induced dry spell last year.

Yet there are several sources of uncertainty pushing food prices in the opposite direction. First, global stocks still remain alarmingly low. The stocks-to-use ratio for maize, for example, currently stands at about 13 percent—the smallest it has been since the early 1970s. Wheat and (milled) rice stocks also remain well below their late 1990s and early 2000 levels. Coupled with the fact that the realization of the forecast yields is itself contingent on benign weather conditions in the major exporting countries, the low stock environment has created a situation in which even small shortfalls in yields can have amplified effects on prices.² Another factor that adds to the potential upward pressure on the price of maize is diversion into the production of biofuels. In the first four months of the year, U.S. demand of maize used in the production of ethanol increased by 8 percent with respect to the same period last year, and this trend may continue given the prevailing uncertainties in the energy market.³

Second, the prices of specific commodities, such as petroleum products, rice and sugar, will also have an

Table 1. Price Change of Key Food Commodities

Commodity	Feb.– July, 2011 (%)	July 2010– July 2011 (%)
Indices		
Food	-5	33
Fats and Oil	-9	32
Grains	-1	54
Other	-1	16
Prices		
Maize (yellow)	3	84
Rice (Thai, 5%)	2	21
Wheat (US HRW)	-13	55
Sugar	-4	62
Soybean Oil	-2	47
Crude Oil	10	45

Source: World Bank DECPG.

important bearing on overall food price movements in the coming months. In July, average crude oil prices (Brent) increased by 10 percent from their February levels. The first two weeks of August have seen a downward trend, in part due to growing concerns about the global economy. The uncertainties about the global economy, combined with the political situation in the Middle East and North Africa region, are likely to keep the oil prices volatile in the short term. Concerns about Brazil's lower than expected sugarcane yields have already caused sugar prices to increase by 29 percent between May and July 2011. Given that sugar and vegetable oils together account for roughly 50 percent of the World Bank's Food Price Index, volatility in these prices is likely to have unexpected effects on food prices in the months ahead. In addition, the recent surge in rice prices—which increased by 11 percent in the last quarter—is a departure from the general decline since February and can have an impact on food price indices in the coming months.

While global prices have remained at high levels, domestic food prices continue to fluctuate widely. The pass through of international prices to domestic prices is commodity specific and depends on multiple factors that are country specific, such as the degree of integration of domestic and international markets, transport conditions, and national policies such as taxation rates.⁴ Due to such factors, changes in domestic prices vary widely across countries. The annual price changes in maize in the 12 months up to June 2011 ranged from increases of 100 percent or more in Kampala, Mogadishu, and Kigali markets to reductions of 19 percent in Port-au-Prince and Mexico City. Domestic prices of sorghum saw annual increases of up to 180 percent in Somalia and reductions of 37 percent in Khartoum during the last year. In the same period, price changes for red beans ranged from an increase of 130 percent in Honduras to a decrease of 11 percent in Guadalajara, Mexico. Prices of rice have fluctuated from increases of 25 percent in Colombia to decreases of 16 percent in Brazilian markets between July 2010 and July 2011 (see table 2).

Domestic prices of some staples have increased sharply in Central and South America and East Africa. In East Africa, the price of **sorghum** increased by 180 percent in Mogadishu and the price of maize increased sharply in Uganda (122 percent), Somalia (107 percent), Rwanda (104 percent), and Kenya (89 percent) during the last year. **Maize and wheat** prices were also up by 86 percent and 64 percent respectively in Ethiopia in June compared to a year

earlier. Domestic price increases in this region are being driven mainly by crop failures caused by what is one of the worst droughts that the region has experienced in decades, in addition to conflict and displacement in Somalia (see next section). The availability of grains in specific areas of Kenya, Ethiopia, and Somalia is very low, and coupled with export restrictions imposed by Ethiopia and Tanzania, has contributed to price rises in the region.⁵

Maize prices increased in many Central and South American countries between April and June of 2011, reflecting pass through of higher global prices in the previous quarters and the normal decline in local supplies between harvests as well as an increased demand for locally produced white maize that has substituted for imported yellow maize in feed.⁶ The largest increases are observed in the Dominican Republic (82 percent), Colombia (25 percent), Guatemala (23 percent), and Panama (22 percent). Compared to their levels a year ago in June 2010, the price of maize was significantly higher in the Dominican Republic (92 percent), Honduras (88 percent), Brazil (78 percent), Guatemala (77 percent), and Costa Rica (29 percent). In a bid to bring prices down, Guatemala, for example, has made provisions for duty-free import of white maize from June to December of 2011. In Honduras and Panama, the price of **beans**—another important component of the local diet—increased by 130 percent and 60 percent respectively between April and July of 2011. In **Central, South and East Asia**, domestic prices for rice and wheat were stable or declining in many markets over the quarter ending in June. However, for some countries, the levels remained significantly higher in comparison to the same point last year: **rice** prices were up in Pakistan (23 percent), while **wheat** prices were up in the Kyrgyz Republic (81 percent), Georgia (38 percent), Sri Lanka (36 percent), and Mongolia (32 percent; see table 2).

Sustained increases in the domestic price of food items have been major contributors to general inflation in a number of countries. In Ethiopia, consumer price inflation rose to 38 percent in June 2011 (year-on-year [yoym]). While a number of other macroeconomic factors were also in play—notably the depreciation of the Ethiopian currency, *birr*, which lost 25 percent of its value against the U.S. dollar between June 2010 and June 2011—much of this increase was driven by the food component of the Consumer Price Index (CPI), which increased by 45 percent during this period. Food prices were also critical drivers of inflation in China, where the price of pork,

Table 2. Largest Domestic Price Movements (up to June 2011)

Quarterly Price Movements: April–June, 2011			
Maize	% change	Wheat	% change
Dominican Republic (Santo Domingo, retail)	82	Ethiopia (Addis Ababa, wholesale)	21
Kenya (Nairobi, wholesale \$)	36	Belarus (National Average, retail flour)	7
Rwanda (Kigali, wholesale \$)	34	Sudan (Khartoum, wholesale)	6
Colombia (Bogota, wholesale white)	25	Kyrgyz Republic (Bishkek, retail flour)	-5
Guatemala (Guatemala City, wholesale yellow)	23	Brazil (National Average, retail flour)	-7
Guatemala (Guatemala City, wholesale white)	22		
Panama (Panama City, retail)	20		
Somalia (Mogadishu, retail white)	18	Rice	% change
Ethiopia (Addis Ababa, wholesale)	13	Rwanda (Kigali, wholesale)	10
Mexico (Mexico City, wholesale white)	-5	Mali (Bamako, wholesale)	9
		Mozambique (Maputo, retail)	-8
Sorghum	% change	Bolivia (Cochabamba, wholesale)	-15
Somalia (Mogadishu, retail)	14	Madagascar (National Average, retail)	-15
Niger (Niamey, retail)	-3		
Haiti (Port-au-Prince, retail)	-5		
Annual Price Movements: June 2010–June 2011			
Maize	% change	Wheat	% change
Uganda (Kampala, wholesale \$)	122	Ethiopia (Addis Ababa, wholesale)	86
Somalia (Mogadishu, retail white)	107	Kyrgyz Republic (Bishkek, retail flour)	81
Rwanda (Kigali, wholesale \$)	104	Djibouti (Djibouti, wholesale flour)	67
Dominican Republic (Santo Domingo, retail)	92	Georgia (National Average, retail flour)	38
Kenya (Nairobi, wholesale \$)	89	Colombia (Bogota, wholesale flour)	38
Honduras (National Average, wholesale white \$)	88	Sri Lanka (Colombo, retail flour)	36
Brazil (National Average, wholesale yellow)	78	Mongolia (Ulaanbaatar, retail flour)	32
Guatemala (Guatemala City, wholesale white)	77	Pakistan (Karachi, retail)	-1
South Africa (Randfontein wholesale white)	66		
Ethiopia (Addis Ababa, wholesale)	64	Rice	% change
Guatemala (Guatemala City, wholesale yellow)	56	Colombia (Bogota, wholesale)	25
Costa Rica (National Average, wholesale white \$)	29	Djibouti (Djibouti, wholesale)	25
Tanzania (Dar es Salaam, wholesale \$)	27	Uganda (Kampala, wholesale \$)	24
Haiti (Port-au-Prince, retail)	-19	Pakistan (Karachi retail)	23
Mexico (Mexico City - wholesale white)	-19	Mali (Bamako, wholesale)	-7
		Lao PDR (Vientiane, retail)	-11
Sorghum	% change	Rwanda (Kigali, wholesale)	-15
Somalia (Mogadishu, retail)	180	Brazil (National Average, retail)	-16
Niger (Niamey, retail)	-9		
Haiti (Port-au-Prince, retail)	-23	Beans	% change
Sudan (Khartoum, wholesale)	-37	Honduras (National Average, wholesale)	130
		Panama (Panama City, wholesale)	60
		Mexico (Guadalajara, wholesale)	-11

Source: FAO, GIEWS.

shrimp, and fish registered sharp increases in the recent quarter. Food price inflation in China stood at 14.6 percent in the year leading up to June 2011. Food price inflation was similarly high in Vietnam (30.6 percent), but like China, the increase was driven not by cereal grains but by locally produced food items such as meat, fish, and vegetables. Local food market factors along with macroeconomic factors appear to have played a key role in food inflation in both countries. However, inflation in these countries is expected to moderate in the near future as local supply improves and assuming monetary policy is tightened to address macroeconomic vulnerabilities.⁷ Food inflation is also creeping up and being transmitted to

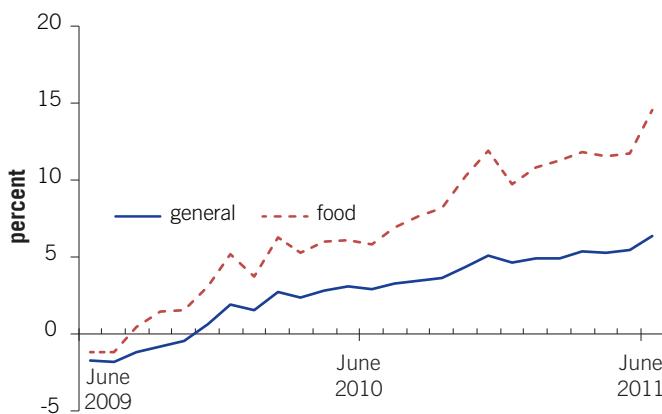
general inflation—albeit in varying degrees—in Central American countries such as Guatemala (see figure 2).

The Food and Humanitarian Crisis in the Horn of Africa

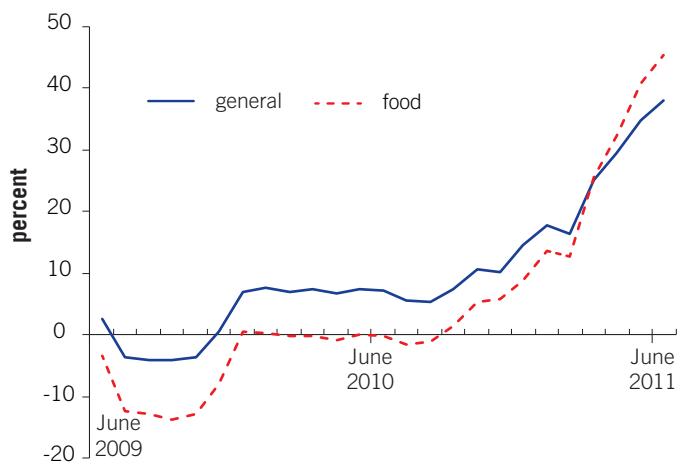
More than 12 million people are estimated to be in need of humanitarian assistance in the Horn of Africa, according to the United Nations Office for the Coordination of Humanitarian Affairs (OCHA).⁸ All countries in the Horn of Africa—Somalia, Ethiopia, Kenya, and Djibouti—are affected, with Somalia being the worst hit. The number of severely affected people is estimated to reach 4.8 million in

Figure 2. Food and General Inflation in Select Countries (yoY)

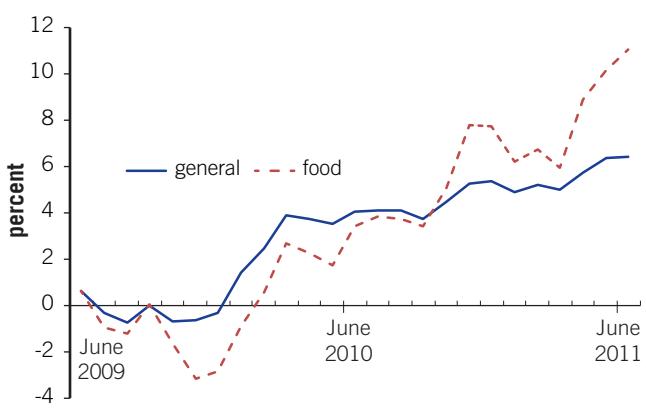
a. China



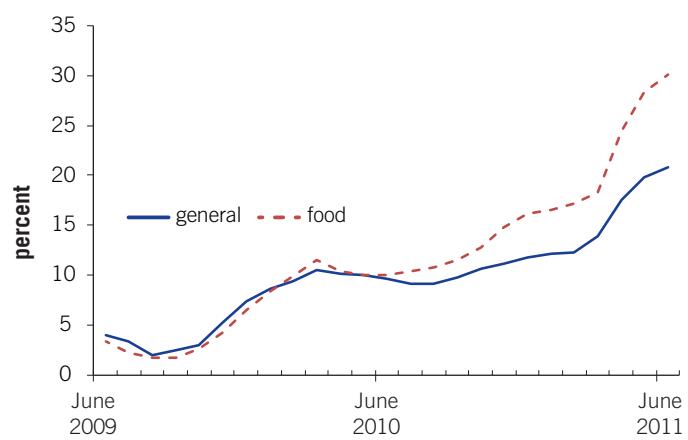
b. Ethiopia



c. Guatemala



d. Vietnam



Source: Regional World Bank PREM units.

Ethiopia, 3.7 million each in Somalia and Kenya, and 165,000 in Djibouti. In Somalia, severely reduced food access, acute malnutrition, and crude mortality rates led the United Nations to officially declare a state of famine on July 29, 2011, in two regions of the southern part: the Bakool (agro-pastoral livelihood zones) and (all areas of) the Lower Shabelle. Famine was declared in three other areas early in August: the Balcad and Cadale districts of Middle Shabelle and the internal displacement settlements in the Afgoye corridor and Mogadishu. The global acute malnutrition rate⁹ in some areas has exceeded 40 percent among children aged six months to five years.¹⁰ All other southern regions are currently in a state of humanitarian emergency, which is the stage before famine, and are at a risk of entering into famine given the expectations of below normal Gu (primary season) rains and the limited access of humanitarian organizations. Other areas of primary concern in the Horn of Africa include the north, south, and southeast Ethiopia; northeast and southeast Kenya; and the refugee camps in Djibouti, Ethiopia, and Kenya. Their current emergency status is not expected to improve to (less severe) crisis status until the end of 2011.¹¹

Domestic food prices have been soaring in the region. Cereal prices in eastern Africa have been on the rise since February 2011 following poor secondary season harvests due to the drought. The Food and Agriculture Organization (FAO) reports that cereal prices have significantly exceeded their previous year levels and reached record levels in Kenya, Ethiopia, and Somalia. Negative expectations over the outcome of the 2011 main season harvests, increased fuel and transport prices, and high international prices of imported wheat are reportedly sustaining high cereal prices.¹² In Somalia, prices of locally produced cereals have continued to increase in all regions since October 2010

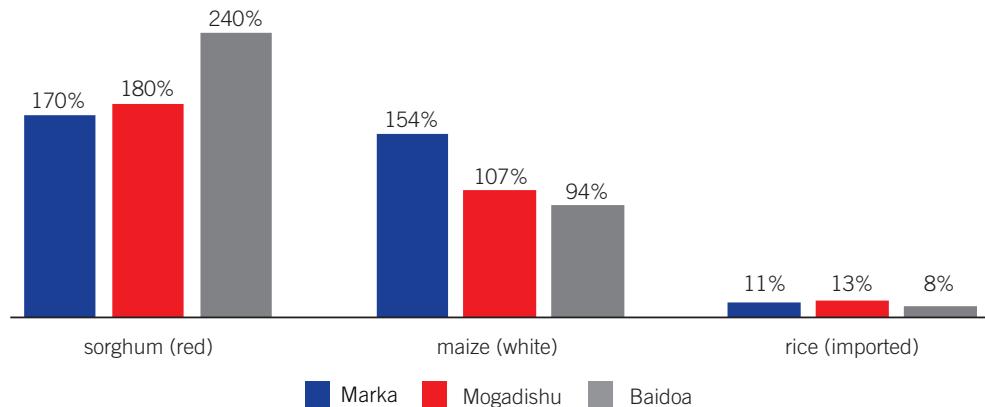
and have now exceeded their 2008 peak levels. Prices of the two major commodities that are domestically produced, red sorghum and white maize, have increased by 30 to 240 percent and 50 to 154 percent, respectively, across Somali regions. Prices of imported commodities, such as rice, sugar, wheat flour, vegetable oil and petrol, are also higher than a year ago. In the case of rice, price increases have been more modest, between 8 percent and 30 percent in the last 12 months.

As expected, food inflation has been a major contributor to the increase in cost of living in Somalia, further deteriorating the purchasing power of consumers. In June 2011, the zonal CPI increased by 6–12 percent in the southern, northeastern, and central regions. These areas saw their inflation rise by 18 to 69 percent in comparison to June 2010. Inflation in the south escalated to record heights, exceeding peak 2008 levels by 30 percent. The CPI for the northern region of Somaliland has remained stable, mainly due to the stability of cereal prices linked to good cereal supply in 2010.¹³

But the famine is not the result of soaring prices alone.

Figure 3 sheds light on price increases across some of the most populated areas of the country for which information on prices is collected. It compares price increases of key staples in Marka and Baidoa, which are famine declared areas, with price changes in Mogadishu, a nonfamine area of the country. Increases in the price of key staples have not been consistently higher in the famine declared areas than in the nonfamine area. White maize prices in the last year increased in Mogadishu more than in Baidoa, and red sorghum prices increased in Mogadishu more than in Marka. Price increases also varied significantly across commodities. For both sorghum and maize, the annual

Figure 3. Food Prices in Somalia—Price Changes (June 2010-June 2011)



Source: FAO GIEWS.

Box 1. Crisis Response

The devastating drought (that has cut farm output and killed herders' livestock), rising prices of key staples, and continued conflict and displacement have combined to cause a humanitarian emergency in eastern Africa that has increased the food insecurity of more than 12 million people, affecting the most vulnerable the worst. The Rome ministerial-level meeting, requested by the French Presidency of the G-20 and dedicated to the Horn of Africa crisis, on July 25, 2011, focused attention on the emergency needs of the most vulnerable. Previously, the G-20 Action Plan on Food Price Volatility and Agriculture had referred specifically to the need to improve the access to safe and nutritious foods for the most vulnerable. The global food prices that continue to be high and the Horn of Africa humanitarian disaster have demonstrated the urgency for tackling long-term and structural factors that contribute to food insecurity for the vulnerable, keeping in mind the increased risk of recurring droughts because of climate change. This has prompted calls to work toward a more integrated approach to address food security, poverty, and climate change.

The Rome emergency meeting also sought resources for measures that will ensure long-term food security in the Horn of Africa, including conflict management, disaster risk management, access to health and education, and climate change mitigation and adaptation. The World Bank response plan to the crisis highlights the need to enhance drought resilience and livestock recovery and assistance to farmers (in the form of cash transfers, seeds, fertilizers, and tools) to resume planting, in addition to programs supporting health, nutrition, logistics, and water and sanitation improvements. Specifically, three phases have been identified in the response plans for the Horn of Africa^a: (i) for the first 6 months, target the most vulnerable by enhancing safety nets; (ii) between 6 and 24 months, focus on economic recovery through livelihood recovery, crop and livestock production, and building resilience and preparedness; and (iii) after the second year, focus on drought resilience, including investments in drought resilient agriculture, risk-financing instruments, and further investments in social safety nets. Out of total resources committed so far (\$1.03 billion), \$870 million have been assigned to emergency efforts, with the rest going toward medium- and longer-term objectives. More funds are needed, however, to fill in the estimated gap of \$1.45 billion needed to reach the targeted \$2.48 billion for the full program.^b

a. "Drought in the Horn of Africa Response Plan," World Bank Group Fact Sheet, July 28, 2011.

b. "Humanitarian Requirements for the Horn of Africa Drought; Djibouti, Ethiopia, Kenya, Somalia," United Nations OCHA, July 2011.

increase in domestic prices has exceeded 100 percent while prices of imported rice have increased by less than 15 percent.

In fact, causes of famine are multiple and protracted, including weather and man-made factors. The prolonged drought in the arid and semiarid areas of the whole region is widely acknowledged to have sparked the disaster. In Somalia, the failed October–December 2010 Deyr rains (secondary season) and the anticipated below normal April–June 2011 Gu rains (primary season) caused crop failures and livestock losses. But other factors coalesced as well. Somalia has experienced several years of civil war and has been without a central government since 1991. The Transitional Federal Government in place since 2004 does not exert authority over the whole country. In addition, other factors such as displacement, civil unrest, piracy, and instability have all contributed to the dire situation. Food security crises have been recurrent in various parts of the

country. During the most recent crisis in 2009, about 3.2 million people were in need of food assistance as a result of internal displacement, conflict, and drought.¹⁴ The same combination of causes is responsible for the current catastrophe.

The disaster has hit the most vulnerable. In Somalia, out of 3.7 million people in crisis, 3.2 million are in urgent need, and 2.8 million of these people are in the south.¹⁵ Poor farmers and agro-pastoral communities who have no stock of cereals and cannot purchase staple food are among the worst affected population groups, as are the displaced, who have no stable source of livelihood and face difficulties in accessing food. Almost 1.5 million Somalis are internally displaced, mostly in the south-central region of Somalia.¹⁶ In addition, more than 800,000 Somali refugees are estimated to be living outside their country, the majority in Kenya, the Republic of Yemen, Ethiopia, and Djibouti. Moreover, the urban poor have seen their purchasing

power and access to food severely curtailed following the increase in cost of living and reductions in wage rate. In other areas in the Horn of Africa, the most affected are reported to be small-scale farmers and herders, the displaced, and the urban poor.

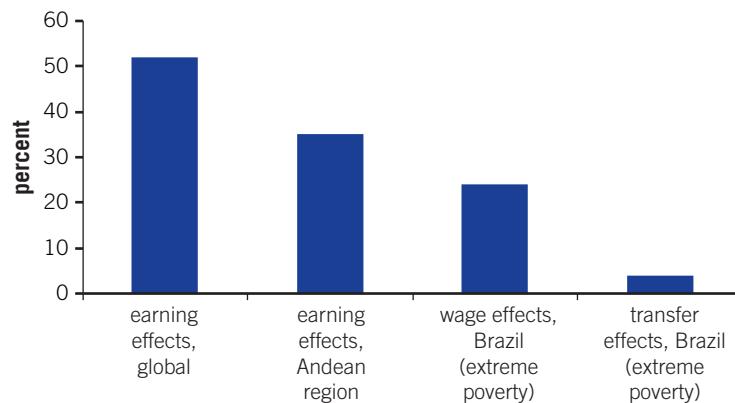
Distributional Effects of Food Price Crises

In situations less extreme than a famine, different segments of the population within a country are affected differently by food price increases. In Brazil, a recent World Bank study (Ferreira et al. 2011)¹⁷ estimates that the rural poor—including wage workers—lost less from higher prices in 2008 than middle-income groups, who are typically net food consumers in urban areas. And the rich lost little, since they spend a small proportion of their incomes on food. Ferreira et al. simulate that up to a quarter of the initial increase in extreme poverty due to food price increases may have been reversed by the benefits of higher wages attributable to food price increases. Social programs can help mitigate some of the adverse impacts on the poorest. In Brazil, increases in transfers to children through *Bolsa Familia* (a conditional cash transfer) and to beneficiaries of *Beneficio de Prestação Continuada* (a means-tested noncontributory pension and disability benefit) may have reduced the size of the impact of food price increases on extreme poverty.¹⁸

Other studies corroborate the benefits of food price increases for producers. Ivanic, Martin, and Zaman¹⁹ recently estimated that in the very short run, increasing incomes of net food producers may reverse up to half of the total global effect of the 2010–11 food price increases on poverty.²⁰ Other estimates for Andean countries during the 2008 food price crisis (Cuesta et al. 2010)²¹ found that increased producer earnings reduced the poverty impact from rising food prices by about one-third. Figure 4 summarizes these results.

These effects depend on factors that are country specific and vary accordingly. The adverse impact of higher food prices on net consumers of food can be mitigated by the extent to which consumers can substitute cheaper food items, which in turn depends on the permanency or volatility of the increases. Net food producers may benefit from rising food prices by getting a higher price for what they sell to markets. Other producers may also benefit if

Figure 4. How Much of the Initial Increase in Poverty Due to Increasing Consumer Food Prices Is Reversed by increasing Earnings (to net producers), Increasing Wages (to salaried workers) and Increasing Transfers (to the most vulnerable) Following Food Price Increases?



Source: Ivanic, Martin, and Zaman (2011); Cuesta Duryea, Jaramillo, and Robles (2010); Ferreira et al. (2011).

Note: These results are based on a simulation exercise on the immediate effects of food price increases based on information on observed consumption and production patterns; assumptions on transmission on earnings and wages; and lack of behavioral response to the crisis, which is appropriate in the very short run.

they can switch production to commodities whose prices are increasing, which may be more likely to happen if prices are on the rise rather than being volatile. Wages can also increase following food price rises, particularly when the agricultural sector employs salaried workers, which is more likely in emerging and advanced economies. Finally, if governments use social safety nets to mitigate the impact of rising food prices, beneficiaries of such programs may see their initial welfare loss from food price increases partially compensated. The extent to which this happens depends mainly on the pre-existing capacity of safety nets and the quality of programs.

Ultimately, an integrated agricultural, food security, poverty, and climate agenda must consider all the factors that matter for vulnerability to food price increases within a country, from drought resilience to availability of infrastructure and social protection for the most vulnerable. An improved understanding of such factors can be particularly useful to better identify countries and population groups within countries that are subject to a high and continuous risk of food insecurity.

Endnotes

1. USDA, *World Agriculture Supply and Demand Estimates*, August 2011.
2. Some countries, such as India, have taken measures aimed at creating additional storage capacity for food grain in the rural sector, including subsidies to

storehouses and financial support to private sector investment (FAO GIEWS Country Briefs—India, May 2011).

3. U.S. Energy Information Administration, *Monthly Energy Review* July 2011, table 10.3 Fuel Ethanol Overview.
4. World Bank, *Africa Pulse*, volume 3, April 2011.
5. USAID, *Price Watch*, July 2011.
6. Ibid.
7. World Bank, *Food Prices—East Asia Pacific Update*, EAP, July 2011.
8. United Nations Office for the Coordination of Humanitarian Affairs (OCHA), *Humanitarian Requirements for the Horn of Africa Drought*, July 2011.
9. Global acute malnutrition rate is defined as weight for height or length between the 70th and 79th percentile of the distribution or between -3 and -2 standard deviations; less than 12.5 cm of mid-upper arm circumference for children age 6–59 months (WHO, *Management of Severe Malnutrition*, 2003).
10. Food Security and Nutrition Analysis Unit (FSNAU)/Famine Early Warning System (FEWSNET), “Somalia Dekadal Food Security and Nutrition Monitoring,” July 25, 2011 (annex 1, p. 6).
11. OCHA, *Humanitarian Requirements for the Horn of Africa Drought* July 29, 2011.
12. FAO, *Global Food Price Monitor*, Trade and Markets Division, July 8, 2011.
13. FSNAU, *Somalia Quarterly Brief*, “Focus on Post Gu Season Early Monitoring,” June 20, 2011.
14. FAO, *The State of Food Insecurity in the World (SOFI): Addressing Food Insecurity in Protracted Crises*, 2010.
15. Food Security and Nutrition Analysis Unit (FSNAU), *Famine in Southern Somalia: Questions and Answers* (<http://www.fsnau.org/downloads/Famine-in-Southern-Somalia-Q%26A-July-2011.pdf>, accessed August 1, 2011).
16. OCHA, *Humanitarian Requirements for the Horn of Africa Drought*, July 2011.
17. F. H. G. Ferreira, A. Fruttero, P. Leite, and L. Luchetti, “Rising Food Prices and Household Welfare,” Policy Research Working Paper 5652, World Bank, May 2011.
18. Transfers per beneficiary by *Bolsa Familia* and *Beneficio de Prestacao Continuada* increased by 13 percent and 9 percent respectively in 2008 according to the authors. They estimate that the transfers reduced the extreme poverty impact by about 5 percent, which is an underestimate since the simulations did not take into account any increase in the number of beneficiaries (Ferreira, Fruttero, Leite, and Luchetti 2011; see note 17).
19. M. Ivanic, W. Martin, and H. Zaman, “Estimating the Short-Run Poverty Impacts of the 2010–2011 Surge in Food Prices,” Policy Research Working Paper 5633, World Bank, April 2011.
20. The 44 million additional poor people as a result of the 2010–11 food price rise estimated by Ivanic, Martin, and Zaman (2011; see note 19) takes into account both positive and negative impacts of the price rise, so that the final number shows the net increase in poverty. Since global food prices have not surged in this last quarter, no substantive variations in the number of global poor are expected.
21. J. Cuesta, S. Duryea, F. Jaramillo, and M. Robles, “Distributive Impacts of the Food Price Crisis in the Andean Region,” *Journal of International Development* 22 (7): 846–65.