THE YEAR 2011 HIGHLIGHTED ONGOING CHALLENGES to global food security, from food price volatility, extreme weather shocks, and famine to unrest and conflicts. On the policy front, major developments at the global and national levels both offered grounds for encouragement and pointed to areas where further action is needed.

First, the good news: after many years of neglect, agriculture and food security are back on the development and political agendas. Both China and India continued to expand their spending on food security and agricultural production. Some 20 African countries have adopted national agricultural and food security investment plans in which they will devote 10 percent of their national budget to agriculture to achieve agricultural growth of 6 percent a year. The US Agency for International Development (USAID) moved forward with its Feed the Future Initiative, begun in 2010, and the World Bank Group maintained its recent increased annual commitments to agriculture and related sectors at about US$6 billion. The Consultative Group on International Agricultural Research (CGIAR)—a global partnership for sustainable development, of which IFPRI is a part—initiated an array of large, innovative research programs in 2011. And the Bill & Melinda Gates Foundation refreshed its agriculture strategy with a strong focus on agricultural development in Sub-Saharan Africa and South Asia.

More broadly, agriculture was increasingly seen as part of a larger context. It is becoming clear that agriculture contributes not just to food production, but also to human nutrition and health—conditions that in turn can affect agricultural productivity and overall economic growth. Agriculture is
also an important element in a number of other interlocking systems. It has strong ties to water, land, and energy, which are, like agriculture itself, under increasing pressure. And many of the events of 2011 underlined how food security—that is, availability of and access to sufficient, safe, nutritious food to maintain a healthy and active life—is linked to other notions of security. These include economic security (related to employment, incomes, and gender), sociopolitical security (related to inequality, governance, and conflicts), and environmental security (related to natural resources).

New thinking has been accompanied by new actors entering the global food system. In 2011, for the first time, the agriculture ministers of the Group of 20 (G20) countries met and agreed to work together to tackle food price volatility and food insecurity. Emerging economies such as Brazil, China, and India have gained an increasing voice in international decisionmaking, moving from being aid recipients to aid donors and trading partners, with their own global agendas.

This overview reviews the major food policy developments of 2011, drawing largely on the chapters in this report, which look back at the year in detail.

FOOD PRICE LEVELS AND VOLATILITY

Global food prices rose during the first half of 2011 and fell during the second half of the year. The food price index of the Food and Agriculture Organization of the United Nations, which measures monthly change in the international prices of a basket of food commodities, reached a record high in February but moved steadily downward from June to December, ending lower for the year. Still, food price volatility remained high in 2011.

The factors that pushed up prices during the 2007–08 food price crisis were again at play during the 2010–11 crisis, including high oil prices, biofuel policies that promote the expansion of biofuel production, increased weather-related shocks such as droughts and floods, and growing demand from emerging economies. Further, the world remains vulnerable to food price swings because grain reserves are extremely low and staple grains are exported by just a few countries. However, favorable harvests in major producing regions and a stronger US dollar induced a fall in dollar-denominated prices during the second half of the year.

What do rising or volatile food prices mean for the poor? Higher food prices cut into the budgets of poor consumers but could raise the incomes of poor producers if they produce more than they consume. Volatile food prices, however, harm both consumers and producers by increasing uncertainty and making it difficult for households to budget for food consumption and to plan for production. Still, more needs to be learned about the specific impacts of price volatility on the diets of the poor, particularly women and children. In Ethiopia, for example, research on the 2007–08 food price crisis found that female-headed households were especially vulnerable to food price shocks.

Shifts in food prices stimulated new policies and initiatives during the year. As mentioned, the G20 ministers of agriculture came together to design an action plan to reduce price volatility, regulate commodity markets, and promote long-term agricultural productivity. Toward the end of the year, the countries of the Association of Southeast Asian Nations, plus China, Japan, and South Korea (altogether known as ASEAN+3) established an emergency rice reserve to help ensure long-term food security in the region.

Some national policies taken in response to changes in food prices may have increased the strain on the global food system. To raise producer incomes, the government of Thailand, the world’s largest exporter of milled rice, established a rice subsidy scheme that threatened to shrink its exports and contribute to higher global rice prices—a trend observed in the second half of the year. Several countries, including China, turned to large grain imports to build up strategic reserves, raising concerns about tighter grain markets.

NATURAL AND HUMAN-CAUSED SHOCKS

The world saw some of the most severe natural disasters on record in 2011. The 9.0-magnitude
earthquake and tsunami in Japan; the severe floods or storms in Brazil, Pakistan, the Philippines, Thailand, and the United States; and the drought in the Horn of Africa imposed large economic losses during the year. According to the International Disaster Database, more than 200 natural disasters, affecting nearly 100 million people around the world, occurred during the year. Munich Re, a reinsurance company in Germany, estimated that 2011 natural disasters imposed economic losses of a record US$380 billion—more than double those of 2010 and far above the record losses of 2005. Poor and hungry people are particularly susceptible to these natural shocks.

In the Horn of Africa, severe drought due to consecutive poor rainy seasons was the worst experienced in 60 years. Extreme drought conditions triggered a widespread crisis in the region that was especially catastrophic in Somalia. Many parts of the Horn, especially the lowland areas, saw large crop losses, significant depletion of grazing resources, skyrocketing food prices, and substantial livestock and human mortality. The dire situation attracted belated policy and media attention as more than 13 million people, principally pastoralists and farmers, were affected and their food and nutrition security was severely undermined. Vulnerable groups such as women and children experienced acute food insecurity and undernutrition. The United Nations Children’s Fund reported that more than 320,000 children suffered from severe malnutrition at the height of the crisis.

Droughts in the Horn of Africa are not new, but the scale of the 2010–11 crisis has been unusual. Although exposure to natural shocks is inevitable, human vulnerability to these shocks is not. Reducing vulnerability means improving society’s ability to cope and build resiliency in the face of future shocks. Given the severity of the drought in the Horn of Africa and the frequency of humanitarian emergencies in the region, a concerted effort is needed to catalyze a transformation, combining innovation, experimentation, and political commitment to enhance resiliency and mitigate the chronic stresses that also impede progress in the region.

**CLIMATE CHANGE**

The record-breaking extreme weather events of 2011 suggested that climate change will put additional pressure on world agriculture in the coming decades. The year provided more evidence that greenhouse gas emissions are rising and that climate change is already affecting agricultural productivity.

The encouraging progress made at the annual climate conventions in 2010 in Cancun and in 2011 in Durban helped address the disappointment created by the failure of the 2009 Copenhagen negotiations to result in binding commitments and gave a greater place to agriculture in global climate change negotiations. A key result was the creation of the Durban Platform for Enhanced Action. This platform, which includes all the Kyoto Protocol signatories plus the United States, is a mechanism for forging a treaty by 2015, whose goal is to bring both developed and developing countries together under a legally binding agreement by 2020.

Outside of formal negotiations, countries and regions are proceeding with their own efforts to adapt to and mitigate climate change, even in the face of a difficult macroeconomic climate. China, India, and Kenya, for instance, have all undertaken significant agricultural adaptation and mitigation activities. The progress made at the national and subnational levels should not overshadow the principle of common but different responsibilities, enshrined in the United Nations Framework Convention on Climate Change text. Rather, these national and subnational activities could be the basis of a binding multilateral agreement to pursue low-emission development strategies.

**BIOFUELS**

Biofuel policy changes in 2011 were dominated by the European Union, the United States, and Brazil. In the United States, the Biofuels Market Expansion Act of 2011 came into law, and debate centered on whether the Volumetric Ethanol Excise Tax Credit—a tax credit for blending ethanol into gasoline—should be repealed. Research suggests that this tax credit, combined with the......
ethanol blending mandate, results in both welfare and efficiency losses. In addition, the Roundtable for Sustainable Biofuels was launched as a mechanism for certifying biofuel producers who adhere to standards of low environmental impact and fair labor practices. This certification could facilitate their compliance with European Union regulations and provide a “green label” that could earn them a price premium as the market further develops.

The environmental impacts of biofuel production were an important topic of investigation in the European Union during 2011. A central question concerns biofuel production and indirect land use change—that is, whether the growing use of land for biofuel crops ultimately leads to conversion of natural land to cropland, diminishing the extent to which biofuel production cuts carbon emissions. As of December 2011, the European Commission had not released its report on biofuel impacts, but once the research provides more conclusive impact findings and policy options, the region should be able to move forward with adjusting its Renewable Energy Directive.
Brazil, China, and India have also substantially developed and revised their biofuel policies in ways that could have a large impact on food security both within their own borders and outside of them.

Finally, the 2011 disaster at Japan’s Fukushima Daiichi nuclear plant revived debate on the potential drawbacks of nuclear power, and a number of countries are reducing their reliance on nuclear energy or phasing it out entirely. This debate may cause countries to shift to bioenergy, leading to further increases in global food prices.

THE FOOD AND AGRICULTURE NEXUS

In an increasingly interlinked global environment, policymakers have begun to more overtly recognize the links between agriculture and nutrition, health, water, and energy.

The agriculture, nutrition, and health nexus came to prominence in early 2011 with an international conference “Leveraging Agriculture for Improving Nutrition and Health” in New Delhi, organized by IFPRI and its 2020 Vision Initiative. This conference inspired and supported a range of new initiatives, including the launch

HOW MANY WERE HUNGRY? HORN OF AFRICA FOOD CRISIS

SEPTEMBER 2011
Over 13.3 million people in the Horn of Africa were affected by one of the worst droughts in 60 years.

11 million
number of people targeted to receive food aid at the height of the crisis

10 months
time between the first alerts about a looming crisis and the peak of the famine

SOURCE: Food and Agriculture Organization of the United Nations
of a major research program called “Agriculture for Improved Nutrition and Health” by the CGIAR. Several development agencies—USAID, with its Feed the Future Initiative, and the United Kingdom Department for International Development—also began to design or redesign their programs to better tap the links among agriculture, nutrition, and health. During 2011, 24 countries with high rates of undernutrition joined the Scaling Up Nutrition initiative, a movement bringing together governments, civil society, the private sector, research institutions, and the United Nations to support countries in their efforts to develop nutrition-sensitive national plans. More than 100 organizations also endorsed the movement. In Sub-Saharan Africa, efforts to integrate nutrition and health into agriculture development strategies were made on the continental, regional, and country level in the form of workshops, conferences, and action plans. These efforts included an agreement between the New Partnership for Africa’s Development and the Global Alliance for Improved Nutrition to develop a five-year joint program to fully integrate nutrition security into the Comprehensive Africa Agriculture Development Program.

The links among food, water, and energy also gained attention in late 2011 with the conference “The Water, Energy, and Food Security Nexus” in Bonn, Germany. The Food and Agriculture Organization of the United Nations (FAO) launched a new addition to its State of the World report series with a report called *The State of the World’s Land and Water Resources*, examining the availability of cultivable land, the state of land degradation, and institutions for managing scarce land and water.\(^6\)

Despite progress, more can be done to maximize the opportunities presented by the links among agriculture and other sectors. One barrier to collaboration between agriculture and other development fields is a lack of common metrics for measuring the impact of agricultural interventions on other development outcomes such as health, nutrition, and natural resources. And more research is needed to identify viable opportunities for strengthening linkages across sectors and achieving win–win outcomes.

**LAND**

A rising world population, growing demand for food, fiber, and biofuels, and recent spikes in global food prices have placed increased pressure on land, resulting in more land degradation and increasing land prices, particularly in Sub-Saharan Africa, East Asia, and parts of Latin America.

Several major land policy developments transpired in 2011. The United Nations General Assembly convened a high-level meeting to address desertification, land degradation, and drought, with government representatives highlighting not only the threat posed by land degradation to social, economic, and environmental sustainability, but also the need for future investment in sustainable land management. Several initiatives—specifically, the FAO’s Global Soil Partnership as well as the Economics of Land Degradation initiative undertaken by Germany, the European Commission, and the United Nations Convention to Combat Desertification—were launched as mechanisms for strengthening sustainable land management through knowledge building and sharing. New evidence presented at these events by IFPRI researchers shows that policymakers should pay attention to land degradation not just in dry areas, but also on many high-quality irrigated lands. More should be done to assure the availability of fertilizers in areas where additional fertilizer use is needed and appropriate to improve soil fertility.

One dimension of land management policies that particularly occupied public discourse in 2011 was the issue of foreign land acquisitions—often described as “land grabbing”—especially in Sub-Saharan Africa. Such acquisitions have the potential to inject much-needed investment into agriculture in developing countries, but they can also harm the food security and livelihoods of the local poor. Large-scale land deals may also have negative impacts on gender equity if they erode women’s customary land rights.\(^6\) Reports on the issue in 2011 by the FAO, the World Bank, and the International Fund for Agricultural...
Development all highlighted the need for governments to ensure responsible investment in agriculture and to strengthen land administration systems that respect the rights, livelihoods, and resources of all citizens.7

NEW PLAYERS

New “players”—such as the private sector, emerging economies, and philanthropic organizations—are increasingly reshaping the structure and nature of the global food policy landscape. Not only are these new players a largely untapped source of financial support to food security efforts in developing countries, but they also offer a wealth of knowledge and expertise, providing new opportunities to address the increasing complexity and challenges facing the global food system.

In 2011 these new players became more entrenched in global food policymaking processes. For example, the G20 is quickly claiming a growing role, next to the G8, as a principal forum for managing global economic problems. The action plan of the G20 agriculture ministers also emphasized the importance of strengthening the engagement of nonstate actors, especially the private sector, in global food security efforts. Emerging economies such as Brazil, China, and India have increased their engagement, especially in terms of forging South–South cooperation. In 2011, for example, the FAO and China made three-party agreements with Liberia and Senegal to provide Chinese technical assistance to food security initiatives and projects. One noteworthy development has been the initiation of cooperation agreements between the Bill & Melinda Gates Foundation and emerging economies such as Brazil and China in support of agricultural and health innovations in the developing world.

Other 2011 initiatives demonstrate the private sector’s increasing involvement in global food security efforts. The World Economic Forum released a “Roadmap for Stakeholders” as part of its New Vision for Agriculture Initiative. This initiative—a collaboration among the World Economic Forum’s partner companies—promotes market-based strategies for sustainable agricultural development. In parallel, the Forum’s partner CEOs contributed to the development of policy positions on food price volatility and food insecurity that fed directly into the 2011 deliberations of the G20 agriculture ministers. Public–private partnerships have been launched to promote sustainable agricultural growth, reduce hunger, and improve nutrition. For instance, PepsiCo has signed several agreements with international organizations to support increased agricultural production (especially among smallholders) alongside long-term nutritional and economic security efforts in countries such as China, Ethiopia, and Mexico. Similarly, private philanthropic and civil society organizations have continued to be major supporters of agricultural development, nutrition, poverty alleviation, and natural resource management.

Still, the opportunities presented by these new players have not been fully harnessed. For example, the private sector’s presence in many global food security platforms is essentially limited to multinational corporations, and there is no real platform for engaging smaller companies. And until recently, the traditional aid donor community—represented by the Organisation for Economic Co-operation and Development’s Development Assistance Committee—has not involved new players.

REGIONAL DEVELOPMENTS

Some regional developments shaped food security and agriculture, as well as development more broadly, over the course of 2011.

In parts of North Africa and the Middle East, long-standing factors—ranging from youth unemployment to growing income disparities and high
risk of food insecurity—led to the Arab Spring, mainly in Egypt, Libya, and Tunisia, but also in Bahrain, Syria, and Yemen. Addressing the challenges that gave rise to the Arab Spring will require more inclusive development strategies. To improve household food security, governments in the region will need to adopt policies that stimulate inclusive growth, such as employment generation for the young and poor, as well as expanded and well-targeted safety nets.

African countries made significant progress in implementing the Comprehensive Africa Agriculture Development Programme (CAADP) in 2011. This program is the African Union’s continent-wide framework to boost agricultural productivity and food security. Six countries signed compacts committing them to achieving an agricultural sector growth rate of 6 percent a year and to raising funding for the sector to at least 10 percent of the national budget—brining the total number of signatory countries to 29. About 20 of these countries have developed national investment plans, and 6 have received funding totaling US$270 billion from the Global Agriculture and Food Security Program.

In India, Parliament introduced the National Food Security Bill, which would provide rice, wheat, and coarse grains at low prices to more than half of India’s 1.2 billion people, making it the world’s largest antihunger program. China announced plans to boost agricultural productivity through increased public investments in water conservation and irrigation. Its water conservation investments will total about US$630 billion over the next 10 years.

In Central America and the Caribbean, high and volatile prices and natural disasters raised concerns about “a hungrier” region. In October 2011, the ministers of agriculture of the Americas approved a declaration emphasizing the importance of increasing investment in agriculture to reduce hunger and poverty and help improve social stability in the hemisphere.

In Europe and the United States, continued policy support to biofuel production, farm subsidies, a hostile attitude toward agricultural biotechnology (mainly in Europe), and trade protections have negatively affected the agriculture sector in developing countries.

**OUTLOOK FOR 2012 AND OPPORTUNITIES FOR ACTION**

Overall, 2011 and the years immediately preceding it have revealed serious weaknesses facing the global food system—lack of ability to respond to volatile food prices, extreme weather, and inadequate response to food emergencies were among the most visible. But chronic, long-term problems such as food and nutrition insecurity also point to areas where the food system can do better. We also face uncertainties. It is not yet clear whether the global economic slowdown will worsen or be reversed. Addressing all of these issues in a resource-scarce world will require keeping agriculture and food security issues high on the global agenda in 2012 and beyond.

Without preventive action, several hot spots could erupt in food crisis in 2012. Early warning systems are once again pointing to the risks posed by drought in Africa—this time in the Sahel region, including Burkina Faso, Mali, Niger, and Senegal. The experience in the Horn of Africa was a tragic reminder of the need to move quickly and aggressively to head off humanitarian crises. Uncertainty also surrounds North Korea, long a recipient of food aid, which is undergoing a leadership transition.

Participants in the major international events of 2012 need to keep the spotlight on food policy issues. The G8 summit in the United States in May and the G20 Summit in Los Cabos, Mexico, in June could reinforce those groups’ earlier emphasis on global food security and ensure that previous financial commitments are honored. It is important that discussions and decisions at the Rio+20 conference on the green economy and sustainable development not neglect the poor, who need better access to food, jobs, and natural resources, as well as a secure social protection system.

More broadly, food policy decisionmakers will face a number of challenges in 2012 and beyond. The long-term problems of chronic food and nutrition insecurity persist, although they are
ENCOURAGING EVENTS IN 2011 | NOT WHAT WE HOPED FOR IN 2011 | WHAT TO WATCH FOR IN 2012

- Agriculture, nutrition, and health climbed up on the national and global agendas, and the nexus of agriculture, food, land, water, and energy has received more attention (see Chapter 6).
- The world’s major political leaders made food policy a high priority, with the G20 agreement on an Action Plan on Food Price Volatility and Agriculture.
- At the World Economic Forum, the world’s business and society leaders gave agriculture a boost when they initiated their New Vision for Agriculture.
- Encouraging progress was made at the climate change conference in Durban, acknowledging the role agriculture can play in the mitigation of and adaptation to climate change (see Chapter 4).
- China’s focus on agricultural policy bore fruit as total grain production exceeded 570 million tons, a new record (see Chapter 9).
- India’s Parliament introduced a National Food Security Bill to provide affordable grains to more than half of its 1.2 billion people (see Chapter 9).
- New initiatives like Feed the Future, the Global Agriculture and Food Security Program, and South-South cooperations boosted agriculture investments.
- Promoting mother and child nutrition gained momentum as it became widely accepted that the nutrition in the 1,000 days between conception and a child’s second birthday are of crucial importance for the child’s future.

- High and extremely volatile food prices in the first half of the year threatened the food security of millions of people (see Chapter 2).
- Biofuel policies in the United States and the European Union have not been changed to take into account their impact on land-use change and food price volatility (see Chapter 5).
- The Doha Round of trade negotiations was still not finalized, so countries continued to maintain domestic policies that undermine the trading prospects of developing countries and the sustainability of the global food system.
- Setting a clear international standard or “code of conduct” for large-scale foreign investment in land has received too little attention.
- African countries are not meeting their target of allocating at least 10 percent of national budgetary resources to agriculture.
- The international community responded slowly and too late to the disaster that was unfolding in the Horn of Africa (see Chapter 3).

- How are governments responding to financial crises and how does this affect their development assistance, especially in the fields of agriculture and nutrition security?
- How much progress is being made on the various initiatives taken in 2011, like the G20 Action Plan or the G8’s repeated commitment to improve food security?
- What impact are noncommercial transactions in futures markets and the increasing trading volume of index funds having on high and volatile prices of agricultural commodities? (See Chapter 2.)
- To what extent is agriculture being integrated in environmental and sustainability discussions, including EarthSummit 2012 or the ongoing climate change debate?
- What are the new leaders of the World Bank, the Food and Agriculture Organization of the United Nations, and the World Food Programme doing to promote nutrition security and agriculture?
- Are the lessons learned during the crisis in the Horn of Africa being applied to increase effectiveness and impact when addressing the emerging crises in the Sahel and North Korea?
- How is the balance of power shifting in agricultural research, technology, production, and trade, with emerging economies pushing the agricultural agenda? (See Chapter 8.)
- Which countries are making the most progress toward achieving the first Millennium Development Goal, and why?
sometimes overshadowed by more dramatic events and acute crises. We will soon reach the 2015 target date of the Millennium Development Goals, almost certainly without having met the goal of halving hunger globally. South Asia and Sub-Saharan Africa, in particular, still show alarming levels of food and nutrition insecurity, despite the progress achieved in recent years. In addition, more work will be needed to reach an effective international agreement on climate change.

We must find new ways to exploit the links between agriculture and other sectors, including health, nutrition, water, and energy. Paying attention to gender equity will help make investments and interventions in these areas more effective. Because agriculture is at the nexus of all of these areas, we need to leverage it for broad development outcomes. At the same time, it will be important to set up a global system to measure, track, and monitor the impacts among agriculture, food and nutrition security, energy, and natural resources. In addition, to allocate resources more effectively, we should begin to base the prices of natural resources and food on their full value to society, including their social and environmental costs, such as impacts on climate change and health. All of these actions require skills and knowledge at the national and local level, so capacity building can help improve outcomes.

These events and challenges will play out in different ways in each country. National and local policies are where global forces translate into on-the-ground impact, so good governance and effective leadership and implementation can make a big difference. Some countries would benefit greatly from a stronger emphasis on building the capacity—that is, the skills and knowledge—of policymakers and program implementers at all levels.

This outlook points to some high-priority areas for action in 2012. First, the G20 should take further steps to rein in food price volatility by, for example, doing more to reduce the competition between biofuel and food production and to discourage trade restrictions that exacerbate price swings. Second, the international community should consolidate global and regional agricultural growth strategies and create or strengthen the institutions and capacities needed to make these strategies work. In particular, this year’s G8 summit should work to ensure that the industrial countries meet their financial commitment in support of a country-led development process for achieving food security in developing countries. Third, participants in the Rio+20 meeting should integrate economic, social, and environmental sustainability efforts and commit to concrete action to meet the long-term challenges of development, including poor nutrition, degraded soils, and scarce water. Finally, a broad intersectoral coalition should work together to address issues related to nutrition, food, and health.