



Regional Developments



IN ADDITION TO GLOBAL DEVELOPMENTS AND FOOD POLICY CHANGES, 2013 also saw important developments with potentially wide repercussions in individual regions and countries. This chapter reports on related trends and offers perspectives on food policy in various regions and food-security hotspots, including Africa, the Arab World, Central Asia and Russia, South Asia, East Asia, and Latin America and the Caribbean. Topics include

- ▶ the progress of the Comprehensive Africa Agriculture Development Programme (CAADP) on the occasion of its tenth anniversary,
- ▶ ongoing food policy reforms in various countries in the Middle East and North Africa,
- ▶ South Asian countries' strategies for achieving food security and adapting to climate change,
- ▶ agrarian and land reform in Central Asia and Russia,
- ▶ the policy challenges of extreme weather events and urbanization in East Asia, and
- ▶ policymakers' increasing focus on undernutrition and obesity in countries in Latin America.

Africa

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THE YEAR 2013 MARKED THE TENTH anniversary of the Comprehensive Africa Agriculture Development Programme (CAADP). Endorsed by African leaders in July 2003, CAADP is an Africa-wide framework for guiding country actions in stimulating broad-based economic growth, poverty reduction, and food and nutrition security through an agriculture-led growth strategy. This essay examines Africa's progress in implementing CAADP and reviews significant agriculture-related developments within the region in 2013, including (1) efforts to better integrate issues of nutrition and resilience into national agriculture and food-security investment plans, (2) actions to ensure mutual accountability through agricultural joint sector reviews, and (3) continent-wide and subregional dialogues to address policy constraints to achieving better development outcomes.

CAADP ENTERING ITS SECOND DECADE

As of December 2013, 46 countries had launched the CAADP roundtable process, 39 had signed compacts, and 28 had developed detailed national agriculture and food-security investment plans. Moreover, notable progress was made in 2013. For example, the Common Market for Eastern and Southern Africa and the Economic Community of Central African States both signed regional compacts. In addition, the Economic Community of West African States (ECOWAS), following the creation of a regional fund in 2012 to implement the regional CAADP agenda, launched a Regional Agency for Agriculture and Food based in Lomé, Togo.¹

For Africa as a whole, progress has not been enough to achieve CAADP targets of both a 10 percent budget share and 6 percent annual growth for agriculture. Agricultural spending grew steadily, however, averaging an annual rate of 7.4 percent from 2003 to 2010, with a total of 13 countries having met or surpassed the budget target in any single year.² Over the same period, Africa's average annual agricultural growth rate stood at 3.8 percent, a marked improvement but still well below the 6 percent target.³ However, a few countries—Angola, Ethiopia, Guinea, Mozambique, Nigeria, and Rwanda—have exceeded the growth target since 2003.⁴ The development community has also responded positively; the share of agriculture in total official development assistance grew at an average annual rate of 10.5 percent during 2003–2010.⁵ Improvements in agricultural expenditures and growth have translated into improvements in overall economic growth and reductions in poverty and undernourishment. For Africa as a whole, gross domestic product (GDP) and GDP per capita grew at an impressive average annual rate of 5.0 percent and 2.3 percent, respectively, during 2003–2012.⁶ Meanwhile, the prevalence of undernourishment fell slightly from 26.7 percent in 2003 to 24.3 percent in 2010, while the proportion of people living below the US\$1.25 a day poverty line fell from 55.7 percent in 2002 to 48.5 percent in 2010.⁷ The absolute number of poor has continued to increase, however, rising from 390.2 million in 2002 to 413.7 million in 2010.

One of CAADP's successes has been to raise the profile of agriculture and build consensus around its centrality to poverty reduction and food security—as reflected in both the widespread buy-in of African governments and the alignment by donors

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to its institutional processes. In 2013, CAADP continued to solidify African ownership and leadership in defining the continent's development agenda and to reinforce the principle of inclusive policy dialogue and mutual accountability across different stakeholders. The African Union has declared 2014 both the Year of Agriculture and Food Security and the year to commemorate ten years of CAADP. The goal is to assess CAADP's performance thus far and chart a way forward for accelerating implementation, improving performance, and deepening impact over the next decade. In 2013, the African Union also planned and held several policy actions and events that will lead up to its July 2014 Summit of Heads of State and Government, which is dedicated to agriculture and food-security issues. As part of the rollout, the African Union Commission launched a new initiative entitled Sustaining the CAADP Momentum, which includes a new results framework to guide implementation in the coming decade.

TURNING ATTENTION TO NUTRITION AND RESILIENCE

The year 2013 also saw new initiatives to directly tackle the issue of nutrition among African countries. For example, at the end of June, the African Union, the Food and Agriculture Organization of the United Nations (FAO), and the Lula Institute jointly convened a high-level meeting in Addis Ababa, Ethiopia, entitled Renewed Partnership for a Unified Approach to End Hunger in Africa by 2025 within the CAADP Framework. At the meeting, heads of state and government, together with representatives from the private sector, civil society, farmers' groups, and other development partners, pledged to end hunger in Africa by 2025. At the subregional level, technical meetings were convened for East and Central Africa, Southern Africa, and West Africa. These meetings centered on how to better integrate nutrition into country investment plans, as part of the Nutrition Capacity Development Initiative launched by the New Partnership for Africa's Development (NEPAD). Other regional meetings—such as the June workshop for West Africa, held in Ouagadougou, Burkina

Faso—discussed the integration of not only nutrition but also risk management and resilience into country plans.⁸ Initiatives that started in previous years were also active in 2013, including efforts by NEPAD's Planning and Coordinating Agency, FAO, the World Bank, and other partners to support integration of resilience and risk management issues into country investment planning and implementation.

In addition, West African nations continued implementation of the Global Alliance for Resilience Initiative in West Africa and Sahel (AGIR), which was launched in December 2012. In April 2013, the alliance adopted a regional roadmap for its implementation. The roadmap specified the alliance's overall objectives and targets, which are to be implemented at the national and local levels according to local priorities. The overall objective of the alliance is to sustainably reduce food and nutritional insecurity and vulnerability. It aims to eradicate hunger in the long term and to improve the resilience of households and communities in the short term.⁹ A workshop, held in Cotonou, Benin, at the end of August, launched AGIR's Country Inclusive Dialogue process, an important step in moving toward the in-country implementation phase by equipping countries to define resilience priorities.¹⁰ Meanwhile, ECOWAS continued its efforts to establish a regional food reserve for West Africa.

ADDRESSING POLICY CONSTRAINTS AND PROMOTING MUTUAL ACCOUNTABILITY

Several continent-wide and subregional events were held that dealt with policy and institutional constraints to achieving better growth and development outcomes. The African Union Commission and the NEPAD Planning and Coordinating Agency organized an Agricultural Policy Exchange and Learning Event in Dakar, Senegal, in May as a forum for governments, the private sector, civil society, donor agencies, and research organizations to discuss policy challenges to meeting the goals and targets of the national agriculture and food-security investment plans, share lessons and experiences, and identify actions to overcome challenges.

Participants ended the event with country and regional action plans for strengthening policy systems and institutional capacity. Inputs from the event fed into the development of the CAADP Results Framework.

Input subsidy programs continue to be an important policy tool used by African governments to achieve agricultural development goals. Yet emerging empirical evidence from studies of fertilizer subsidy programs indicates that the costs are likely to exceed the benefits. This is particularly true in cases where subsidized fertilizers either are diverted from their targeted beneficiaries or displace supplies from the private sector.¹¹ Challenges regarding fertilizer subsidies are related not only to their often high cost but also to their design and implementation modalities. Seed subsidy programs that are designed to be less prone to diversion and private-sector displacement tend to show better outcomes. The evidence also suggests that investments in agricultural research and development and infrastructure are more cost-effective in promoting growth than are fertilizer subsidies.¹²

The year 2013 also witnessed a strong push to strengthen mutual accountability through agriculture joint sector reviews. Such reviews provide a multistakeholder platform for assessing not only agricultural sector performance but also how well state and nonstate actors have implemented their commitments as stipulated in the national agriculture and food-security investment plans, CAADP compacts, and other agreements. In support of this effort, the International Food Policy Research Institute (IFPRI) and the Regional Strategic Analysis and Knowledge Support System (ReSAKSS) developed a technical note and terms of reference to guide the conduct of these joint sector reviews. They also held training events in countries and at the continental level, including a technical workshop in April in Dakar, Senegal. Of the first group of six focus countries, Ghana and Rwanda already have active joint sector reviews; Mozambique launched its first in August; and efforts are underway to support Burkina Faso, Senegal, and Tanzania in launching their first reviews. In November, IFPRI, ReSAKSS, the African Union Commission, and the NEPAD Planning and Coordinating

Agency held the Annual ReSAKSS Conference in Dakar, Senegal, which underscored the importance of fostering mutual accountability through effective and regular joint sector reviews in countries across the continent. Concurrently, Senegal's New Alliance for Food Security and Nutrition (or New Alliance) Cooperation Framework was launched; Senegal's commitment to the framework will be monitored through the country's joint sector review process.

Efforts to improve policies and foster mutual accountability are also being pursued through the New Alliance and the Grow Africa Initiative. Launched in 2012, the New Alliance represents a shared commitment by African governments, the Group of 8 and other donors, and private-sector companies to increase investments in African agriculture and to accelerate the implementation of priorities identified in CAADP investment plans. As part of the New Alliance, countries develop cooperation frameworks indicating government policy reforms, private-sector investments, and donor commitments to accelerate agricultural growth. Commitments under the frameworks are to be reviewed on an annual basis as part of the country joint sector review process. In 2013, the first six countries that joined the New Alliance—Burkina Faso, Côte d'Ivoire, Ethiopia, Ghana, Mozambique, and Tanzania—implemented many of the policy commitments they had made in their cooperation frameworks. By April, out of 97 different policy commitments made by these governments, 27 had been completed and 55 had achieved some progress.¹³ Donor and private-sector commitments were also largely on track. Of the approximately US\$1.5 billion in donor assistance pledged to have been disbursed by April, 91 percent had been paid out.¹⁴ In addition, 89 out of 113 private-sector investment projects had seen at least some progress.¹⁵ Four countries—Benin, Malawi, Nigeria, and Senegal—joined the New Alliance and signed their respective cooperation frameworks.

Another partnership platform is Grow Africa, founded in 2011 by the African Union Commission, the World Economic Forum, the NEPAD Planning and Coordinating Agency, and others. It works closely with the New Alliance and seeks to

mobilize private-sector investments. By May 2013, Grow Africa had attracted 97 investment projects from 62 companies (39 of which are from Africa), and more than US\$60 million had been invested in linking small farmers to markets.¹⁶

Grow Africa holds an annual Agricultural Investment Forum and supports other similar events. One is the Business Forum for West Africa, which was organized by the Network of Farmers' and Agricultural Producers' Organizations of West Africa and private-sector actors and held at the end of October in Abidjan, Côte d'Ivoire. Participants discussed how farmer organizations can develop attractive investment proposals for businesses.

The African Green Revolution Forum, a partnership that unites players from multiple sectors to develop and promote investments in agriculture, held an event in Maputo, Mozambique, in September. Participants met to review CAADP progress, explore methods to connect smallholders with commercial agricultural value chains, and identify financing models to promote growth and value chain expansion.¹⁷

AN EMERGING AGRICULTURAL SCIENCE AND TECHNOLOGY AGENDA FOR AFRICA

Numerous efforts aimed at promoting partnerships and alliances in science and technology

took place in 2013. In January, the African Union Commission and the CGIAR Consortium signed a memorandum of understanding on joint activities to further the Dublin Process agenda of aligning CGIAR research with the CAADP framework. The memorandum called for the alignment of CGIAR research programs with CAADP investment plans, the development of a Science and Technology Agenda for African Agriculture, and support for subregional research organizations. In support of the alignment efforts, IFPRI-led HarvestChoice is undertaking an exercise to map ongoing agricultural research and development activities in Africa by CGIAR centers. The Forum for Agricultural Research in Africa (FARA) is heading efforts to outline the Science Agenda (now called the Science Agenda for Agriculture in Africa). It held two meetings, in January and March, to outline the process of developing the agenda. The Africa Agriculture Science Week meetings followed in July, in Accra, Ghana, and allowed stakeholders to review progress and discuss the science agenda for the next three years. An expert panel, also convened by FARA, released a discussion paper in June to stimulate further discussion on the agenda and its process, followed by a virtual discussion forum in September. The agenda is expected to be unveiled at the African Union Summit in July 2014.¹⁸ ■

The Arab World

Clemens Breisinger, Perrihan Al-Riffai, Olivier Ecker, and Maurice Saade



IMPROVING FOOD SECURITY REMAINS A KEY strategic objective of Arab countries and is widely recognized as an important factor in stability and economic development, especially since the political uprisings that recently occurred in the region.¹ What follows is an overview of key food security issues the region grappled with during 2013.

AGRICULTURAL PRODUCTION AND CEREAL IMPORTS INCREASING IN MOST ARAB COUNTRIES

In most Arab countries, agriculture performed better in 2013 than in 2012, largely because of more favorable weather conditions.² Cereal production increased in 11 out of 14 surveyed countries—particularly in Algeria, Iraq, Morocco, and Sudan. Countries with falling production included Saudi Arabia, Syria, and Tunisia.³ Even as cereal production rose in most countries, however, cereal imports also continued to expand. To finance these growing imports, oil-exporting countries continued to rely on an oil-for-food trade strategy. Arab transition countries—that is, Egypt, Libya, Tunisia, and Yemen—faced severe challenges in financing food imports due to lower inflows of both tourism revenue and foreign direct investment.⁴ Increases in development aid and remittances helped alleviate some of these shortfalls, especially in Egypt and Yemen.⁵

PERCEIVED FOOD SECURITY IMPROVING BUT CHILD MALNUTRITION REMAINS HIGH

Economic growth in most Arab countries remained modest and below the levels prior to the political

uprisings, especially in transition countries. Unemployment either rose or remained stuck at high levels in Egypt, Jordan, Morocco, and Tunisia. Most worrying, perhaps, was that child malnutrition remained high relative to other countries at similar income levels (Figure 1). Nonetheless, food prices declined, largely due to lower global food prices. Possibly as a result, perceived household food security improved in many countries. Exceptions included Egypt, Sudan, and Syria, where sociopolitical conflict has led to higher prices and lower incomes, likely further increasing food insecurity (Figure 2).

FOOD SECURITY IN SYRIA

The ongoing war in Syria had serious food security implications both for Syria and several of its neighbors. By 2013, Syria's per capita gross domestic product had contracted by an estimated 42 percent compared with prewar levels, in part because the war had disrupted or destroyed key infrastructure and services.⁶ Prices for food and other goods and services more than doubled between 2010 and 2013, leading the United Nations to estimate that 4 million Syrians are food insecure. In addition, 4.5 million people are internally displaced, and more than 2 million people have fled to neighboring countries.⁷

PROMISING DEVELOPMENTS IN FOOD POLICY

Algeria's Policy for Agricultural and Rural Renewal (PARR), launched in 2009, has begun to show impressive results. This policy seeks to stimulate

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agricultural modernization through private-sector investments, supported with generous credit subsidies and output subsidies targeting key strategic commodities (such as cereals, milk, potatoes, meat, and date palms). Although agricultural growth that is driven by heavy subsidies may not be sustainable, these reforms include other elements that are conducive to sustainable growth. The cornerstone of PARR is the Land Concession Law. By allowing farmers to obtain 40-year renewable concessions for formally state-owned land, the law in effect creates new private land ownership. The solid agricultural growth for 2009–2013, estimated by the government to have averaged 13.8 percent annually, was perhaps stimulated by this law.⁸

In Yemen, the outcome of the National Dialogue Conference is generating cautious optimism about possible political reform, whereas the Friends of Yemen meeting in September emphasized the importance of effectively managing the US\$7.8 billion that donors have pledged to Yemen. The Yemen government reemphasized its commitment to implementing the National Food Security Strategy at a September workshop hosted by the prime minister in Sanaa. In an important step toward financing the implementation of the food strategy, Yemen secured a US\$36 million grant from the Global Agriculture and Food Security Program.

In Egypt, prospects rose for better-informed policymaking with the May launch of the open data initiative by the Central Agency for Public Mobilization and Statistics. With the support of the Economic Research Forum, the agency is providing open access to household and labor market surveys. In another move toward increased data transparency, in January 2014, IFPRI, the International Fund for Agricultural Development, and CGIAR's Research Program on Policies, Institutions, and Markets launched a revised version of the Arab Spatial Development and Food Security Atlas, the first interactive mapping tool for the region.⁹

MORE COURAGE FOR POLICY CHANGE NEEDED

In light of the continued tense political situation in many Arab countries, most governments in the

FIGURE 1 THE DISCONNECT BETWEEN NATIONAL INCOME AND CHRONIC MALNUTRITION

For most countries in the Arab world, the prevalence rate of child stunting—a measure of chronic malnutrition—is higher than would be expected given these countries' levels of per capita GDP.

CHILD STUNTING HIGHER THAN EXPECTED	
Bahrain	Oman
Comoros	Qatar
Djibouti	Saudi Arabia
Egypt	Sudan
Iraq	Syria
Lebanon	Yemen
Libya	
CHILD STUNTING AS EXPECTED	
Algeria	Kuwait
CHILD STUNTING LOWER THAN EXPECTED	
Jordan	Somalia
Mauritania	Tunisia
Morocco	West Bank and Gaza

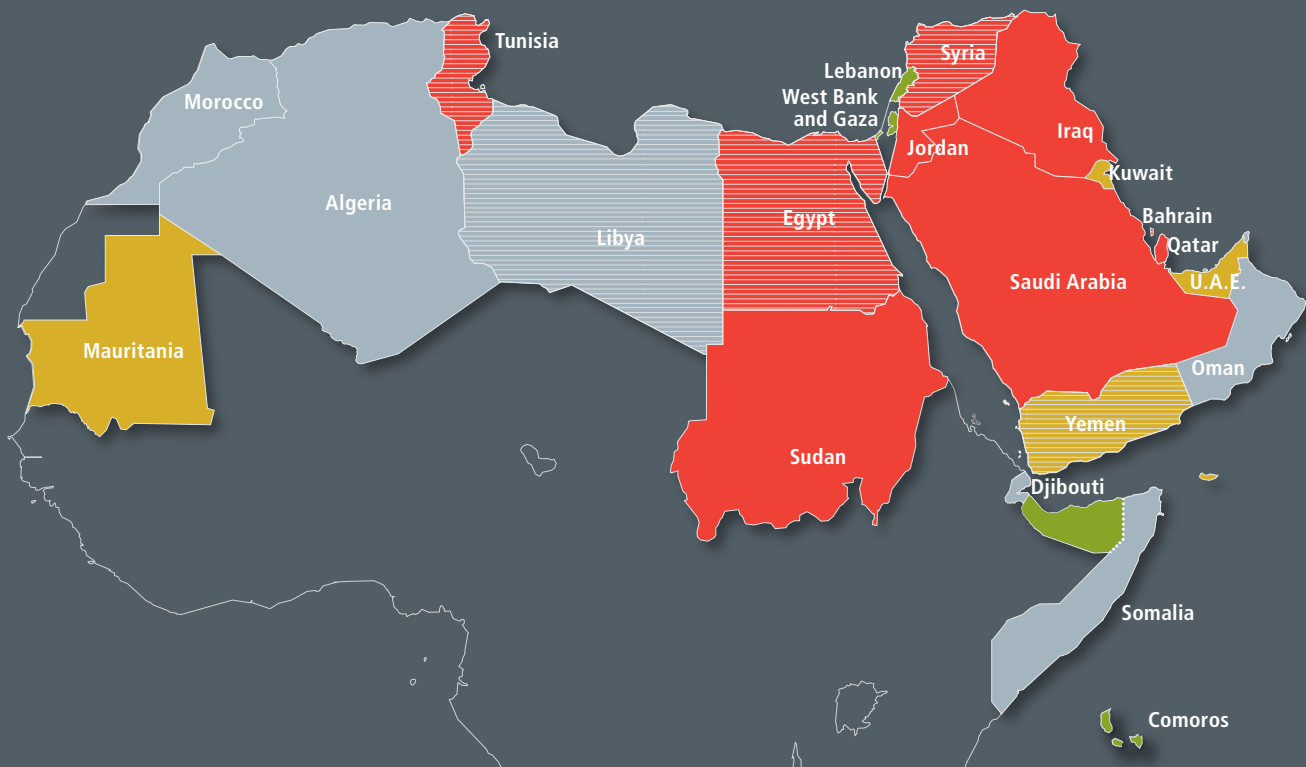
Sources: Expected stunting rate per GDP level was determined based on a population-weighted regression of the global relationship of the prevalence rate of child stunting and GDP per capita (across countries for several years). Data for child stunting, GDP, and population were from the World Bank's World Development Indicator database, <http://data.worldbank.org/data-catalog/world-development-indicators>. Missing GDP data were interpolated based on GDP growth rates from the United Nations Statistics Division's National Accounts Main Aggregates database, <http://unstats.un.org/unsd/snaama/Introduction.asp>. Missing population data were interpolated based on population growth rates from the United Nations Department of Economic and Social Affairs' Population Estimates and Projections database, <http://esa.un.org/unpd/wpp/index.htm>. All databases accessed on August 22, 2013.

FIGURE 2 PERCEIVED FOOD SECURITY AFTER POLITICAL UPRISINGS IN THE ARAB WORLD

"Have there been times in the past 12 months when you did not have enough money to buy food that you or your family needed?"

Gallup asked this question each year in most Arab countries. This map shows whether the percentage of people in each country who answered "Yes" increased, stayed relatively the same, or decreased following the onset of political uprisings.

- More people reported food insecurity
- No significant change in reports of food insecurity
- Fewer people reported food insecurity
- Country experienced political uprising
- No data



Source: Data from Gallup Analytics, <https://analytics.gallup.com/>, accessed December 7, 2013.

region continue to prioritize short-term stability over the economic reforms that are urgently needed for sustainable development and long-term stability. Thus, although several initiatives were implemented in 2013, more needs to be done—and in a transparent manner that involves the public in

decisionmaking processes—to achieve food security in the Arab world. Most promising are those efforts that create jobs for the poor, improve the efficiency and allocation of public spending, and implement evidence-based national and regional food security and development strategies. ■

Central Asia and Russia

Kamiljon Akramov and Noah Cohen-Cline



IN RECENT YEARS, THE GOVERNMENTS OF Central Asia and Russia have placed great emphasis on agriculture and food security. Although the recent global food and economic crises had significant impacts on all countries in the region, soaring food prices and financial strain were particularly painful for poorer countries, such as Kyrgyzstan and Tajikistan, which depend highly on food imports and remittances. Spiking food prices reduced the affordability of food, and downturns in the inflow of remittances from workers abroad further undermined the ability of these countries to finance food imports.¹ This essay outlines major food policy efforts taken in 2013 by Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan to enhance food security by improving long-term agricultural productivity, agribusiness competitiveness, and international trade.

KAZAKHSTAN

The Kazakhstan government adopted a multiyear agricultural development program targeting long-term efficiency and productivity improvements by stimulating adoption of efficient technologies and inputs, increasing investment in market and production infrastructure, and promoting land improvement. The program, *Agribusiness 2020*, prescribes a wide range of policy instruments aimed at boosting agricultural productivity and agribusiness competitiveness, including provision of concessional credit, investment grants, and input subsidies for agricultural producers; per-hectare payments to farmers for locally determined priority crops; a more favorable tax structure for agricultural enterprises; and a variety of credit and tax concessions to the food-processing sector.² These

policies are designed to balance agriculture's share in output and employment, though not specifically to bolster domestic food security, which is less of a concern in Kazakhstan.

KYRGYZSTAN

In the Kyrgyz Republic, where land fragmentation and farm productivity are pressing food-security issues, the government has been vigorously debating approaches to land consolidation, with discussions centering on measures to facilitate farmer cooperatives. Although no related policies have yet been enacted, the government did make policy progress in the area of agricultural trade, which it needs to expand in order to increase agricultural gross domestic product and to raise the purchasing power of agricultural households. In 2013, the government adopted a new National Export Strategy focused on promoting exports of fruits and vegetables, dairy products, and meat. The strategy also focuses on improving sanitary, phytosanitary, and other quality-control measures; increasing farmers' access to finance; and promoting trade-facilitation measures. This strategy is expected to increase farmer incomes and improve the general well-being of rural households.

RUSSIA

In Russia, where the agricultural sector is relatively well developed, current priorities are to expand production and further develop agribusiness. The government adopted a long-term State Programme for Development of Agriculture, which seeks both to increase agricultural productivity and to achieve food self-sufficiency targets. The wide-ranging program

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prescribes more than 50 policy measures, the largest of which includes interest-rate subsidies for biotechnology development, crop, and livestock sectors; per-hectare crop payments and per-liter milk payments; input subsidies and discounted fuel prices; and a range of tax concessions. With these measures the Russian government expects to expand food production, keep food prices affordable, and increase trade competitiveness.³ Although heavy subsidization of agriculture is generally not a sustainable way to bring about long-term agricultural growth, fiscal constraints are less of an issue in resource-rich Kazakhstan and Russia.

TAJIKISTAN

The government of Tajikistan continued implementing a comprehensive Agrarian Reform Programme, finalized in late 2012. This program addresses Tajikistan's major domestic food-security challenge—farm productivity—by reducing government interference in farmers' decisionmaking; increasing private incentives; and supporting access to rural finance, inputs, and advisory (extension) services. Some related key laws were also implemented. For example, a new farm law facilitated farm restructuring to enhance farmer incentives and decisionmaking. In addition, a new cooperative law created a legal basis for the development of farmer organizations and cooperatives—especially credit, leasing, and services cooperatives—to enable new individual and family farms to pool financial and capital resources. The government amended the land code to establish inheritable and exchangeable land-use rights for the first time and adopted an integrated water resources management approach that allows the establishment of local river basin organizations and water user associations to better manage hydrological resources.⁴ The government also piloted an effort to create local advisory and information centers staffed by agronomists to support farmers.

UZBEKISTAN

The government of Uzbekistan advanced its policy on land consolidation with provisions that set

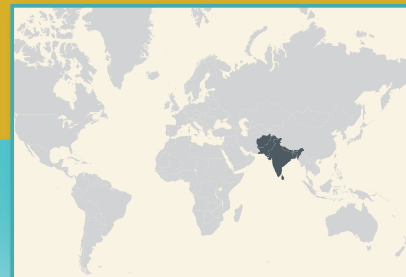
a minimum land area for cotton- and cereal-producing farms at 30 hectares and a limit for farms specializing in horticulture and other crops at 5 hectares.⁵ The new resolution allows both voluntary and government-driven acquisition methods for ensuring that plot sizes meet these requirements. The rationale for the relatively large land size requirements is unclear, and some argue that this intervention in the land market may undermine farmers' perceptions of tenure security. With support from development partners, the government continued its policy on diversification of crop production toward nutritious and higher-value fruit and vegetable crops.

INTERNATIONAL TRADE

Finally, the year saw important developments in regional and international trade possibilities for agricultural products. After 18 years of negotiation, Russia acceded to the World Trade Organization (WTO) in August 2012, and in 2013, it enacted measures to fulfill its liberalization commitments. In March 2013, Tajikistan also acceded to the WTO, and Kazakhstan entered into advanced stages of negotiation. Membership will require all three countries to prioritize policies that improve food-safety regulations, reduce import quotas, upgrade infrastructure, and tackle land and water management challenges. This trend—together with a smaller, regional customs union among Belarus, Kazakhstan, and Russia, which promotes regional trade and may soon include some other countries—may have important implications for more efficient trade in agricultural products and inputs in the region. In addition, it could be especially important for smaller countries in the region, which have difficulty acquiring affordable inputs and also tend to have comparative advantages in high-value fruit and vegetable crops that they have not yet realized. More efficient trade structures that encourage cultivation of these crops, as well as continued cultivation of high-quality cereals in Kazakhstan and Russia should increase incomes and improve nutritional outcomes in the region. ■

South Asia

P. K. Joshi and Avinash Kishore



DESPITE RAPID ECONOMIC GROWTH and an increase in food production in recent years, South Asia has yet to experience significant improvement in nutrition.¹ Home to nearly 35 percent of the world's poor, the region is plagued by persistent and alarming levels of hunger.² South Asia has both the highest rates of undernourishment in children and the largest number of undernourished children in the world. More than one-third of adult women in Bangladesh, India, and Pakistan are underweight.

Efforts to reform food systems in the region have unfortunately been largely stymied by the continued policy paralysis in most South Asian countries. The region has experienced inflationary food prices, and the resulting debate has centered on whether demand- or supply-side factors are responsible. Economic growth has led to rising incomes and thus increased consumer demand for food commodities. Yet on the supply side, efforts to meet this growing demand have been lukewarm. Going forward, the policy environment in most South Asian countries seems uncertain. Because general elections are due in Bangladesh and India in 2014, private-sector actors, both domestic and foreign, might choose to wait before launching new initiatives.

This essay provides an overview of the few important policy steps that South Asian countries did take in 2013. These policies were aimed largely at improving national food systems by increasing agricultural production, ensuring food security for the poor, and reducing climate risks.

BANGLADESH

National Agricultural Policy

In 2008–2012, nearly 17 percent of the population in Bangladesh was undernourished, and about 37 percent of children under the age of five were underweight.³ In 2013, in a move to help make the country self-sufficient in food, Bangladesh launched a National Agricultural Policy.⁴ Designed to make the country's agriculture more resilient and sustainable, this policy gives priority to increasing production of more nutritious food crops, including cereals. Reaching this goal of self-sufficiency in food production will, however, entail a trade-off with strict economic efficiency.

This new national policy includes a number of components. Once the policy is fully implemented, irrigation development, integrated pest management, and environmentally friendly sustainable agricultural systems will be key drivers for increasing agricultural production and augmenting farmer income. Other proposed programs include the utilization and extension of biotechnology, efforts to strengthen agricultural input and output markets and to provide timely farm credit, and opportunities to boost the agro-processing sector. The policy also calls for the country's active participation in international trade agreements and treaties, such as the World Trade Organization and the South Asian Free Trade Area.

If implemented effectively, the National Agricultural Policy is expected to increase agricultural production, generate more employment opportunities, and improve the sustainability of natural resources.

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Genetically Modified Eggplant

In another significant development of 2013, the government of Bangladesh finally released a genetically modified (GM) eggplant. This was made possible after the National Committee on Biosafety approved the release of the country's first GM food crop for commercial production.⁵ Four such modified varieties of eggplant were initially approved for limited commercial production. The production of GM eggplant will prevent crop damage by insect borers and reduce pesticide use, thereby reducing costs, increasing productivity, and thus boosting farmer income.

By taking this step, Bangladesh has become the twenty-ninth country to grow GM crops. Elsewhere in the region, India and Pakistan are already growing GM cotton. Debate on approval of genetically modified crops is continuing in India, even as the moratorium on field trials of such crops remains in force. The decision by the government of Bangladesh to release GM eggplant for commercial production will likely continue to keep India's policy debate alive.

BHUTAN

Bhutan approved the implementation of an initiative to transform the country's agriculture into an organic system.⁶ The National Organic Program aims to (1) develop and promote organic farming as a way of life among Bhutanese farmers; (2) enhance nutrition, health, and farm household income; and (3) turn the country into a net exporter of organic products. Given that the global organic food market is expanding, Bhutan could conceivably become the first completely organic country by 2020. The success of the new initiative will depend on Bhutan's ability to identify niche export-oriented commodities, develop an efficient value-chain strategy, and reduce transport costs. The proposed initiative will expand the commodity mix under the purview of organic farming in areas where agrochemicals have not been used.

INDIA

National Food Security Act

Across all of South Asia, the most important policy of 2013 was India's National Food Security Act. It is considered to be one of the largest social safety net programs in the world. This new legislation is discussed in detail in Chapter 3. Given the existing public distribution system and that many states already have been performing impressively, it is unclear how effectively this program will contribute to improving household food and nutrition security.

The Kisaan (Farmer) SMS Portal

As another major initiative in 2013, the Indian government launched the Kisaan SMS (short message services) Portal for Knowledge Dissemination, a program designed both to accelerate the dissemination of agricultural technology and to make the best use of information and communication technology.⁷ The portal will disseminate relevant technical information, provide topical and seasonal advisories, and alert farmers on various other developments through SMS in local languages.

The service will be available to about 330 million mobile subscribers across rural India. By integrating such a large network into a knowledge-generating system (that is, the research apparatus), the project is designed to ensure that farmers and other stakeholders have quick access to timely and relevant information, thereby helping them increase production, reduce risks related to climate change, and sell their produce in remunerative markets.

Land Acquisition Act

To help end unfair land transactions between poor farmers, and real estate and corporate-sector entrepreneurs, the Indian government passed the Land Acquisition, Rehabilitation and Resettlement Act of 2013.⁸ This legislation provides fair compensation, be it resettlement or other alternative opportunities, to those affected and also ensures

adequate safeguards for complete transparency in the process of land acquisition. The legislation, which replaces the age-old Land Acquisition Act of 1894, will apply whenever the government acquires land (1) for its own use and for public-sector undertakings; (2) to transfer to the private sector for a public purpose, such as a national highways project; and (3) for the immediate and declared purpose of the private sector for a public purpose. The new act bars any acquisition of multicrop irrigated land. The government can acquire agricultural land only by the consent of at least 70 percent of those slated to lose land. In cases where the private sector is acquiring the agricultural land, a consent rate of 80 percent is required.

The act is thus designed to protect the interests of farmers, especially smallholders, when the government or private sector acquires their land. The corporate sector, however, has expressed concern that the new legislation will restrict industrial development. Some stakeholders are also apprehensive that the provisions of the act may be violated given the absence of an adequate legal framework.

NEPAL

Nepal has a low seed replacement rate, which adversely affects the country's agricultural production.⁹ This low rate is likely attributable to a variety of factors. There is a deficit of quality seeds in the country and a lack of knowledge about modern varieties and hybrids. Nepal's seed sector is also widely dispersed, and the seed chain for most agricultural commodities is fragmented and inefficient. In sum, an overall lack of capacity in seed production, certification, and marketing are arguably why Nepal has been unable to grow a more robust seed sector.

To overcome these problems, the government of Nepal proffered a seed-sector development strategy known as National Seed Vision.¹⁰ This policy is designed to achieve multiple goals, such as ensuring food security, reducing poverty, generating employment opportunities, contributing toward

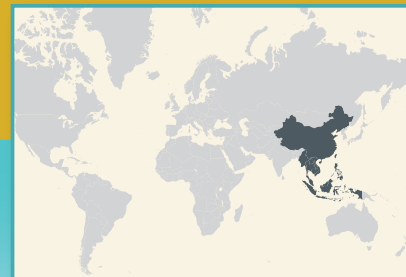
biodiversity conservation, helping the country adapt to the adverse impacts of climate change, and contributing to gender equality and social inclusion. Once approved by parliament and then fully implemented, the program is expected to contribute to food security efforts and reduce reliance on food imports. In addition, the aim is to use better border and other regulatory measures to check the flow of exotic seeds—especially vegetable, maize, and paddy hybrids—into Nepal. It is estimated that effective implementation of Seed Vision will ensure that about one million farmers have access to quality seed and that the seed replacement rate will reach 25 percent for cereals and more than 90 percent for vegetables.

PAKISTAN

With frequent floods and droughts adversely affecting the livelihood of the country's farmers, Pakistan is highly vulnerable to the effects of climate change.¹¹ To help meet the challenge, in 2013, the Pakistan government launched its first ever National Climate Change Policy.¹² Broadly, the policy aims to (1) pursue sustained economic growth by minimizing the risk arising from extreme weather events, such as floods, droughts, and tropical storms; (2) integrate climate change policy with other interrelated national policies by strengthening interministerial decisionmaking and coordination mechanisms on climate change; (3) focus on pro-poor, gender-sensitive, and cost-effective adaptation strategies; (4) encourage public- and private-sector investment in adaptation measures (including promoting water-saving devices such as drip and sprinkler systems, scaling up conservation agriculture through appropriate machines and laser land leveling, and supporting weather advisory services and agricultural insurance);¹³ and (5) promote conservation of natural resources and long-term sustainability. In sum, the hope is that these policies will promote climate-smart agriculture and strengthen local and national institutions for adapting and combating climate change impacts. ■

East Asia

Kevin Chen and Peter Timmer



DESPITE SLOWING IN 2013, ECONOMIC growth in East Asia remained impressive, with the region serving as the engine of global growth.¹ Yet despite—and sometimes because of—this growth, East Asia's agricultural sector is facing many challenges. This essay highlights the significant events that not only reshaped agriculture in East Asia in 2013 but might also have important implications for global agriculture in 2014 and beyond.

FLOODS AND REGIONAL FOOD SECURITY

East Asia was once again faced with disastrous and extensive flooding.² More than one million people across the region were affected by excessive monsoon rainfall during the year, with China and the Philippines suffering the majority of the damage. More than 660,000 people in eastern China were severely affected by the seasonal storms, with more than 22,200 hectares of crops damaged. The Philippines also sustained significant loss from a series of typhoons, including Typhoon Haiyan, all of which killed thousands and affected the lives of millions. Severe floods also affected Cambodia, Indonesia, Laos, Myanmar, Thailand, and Vietnam. Crop losses in several areas were significant, though no official estimate of the total damage exists.

Because the region is threatened by the increasing occurrence of such extreme weather events,³ it is little wonder that agricultural disaster prevention and relief were identified as the top agenda item at the fifth Association of Southeast Asian Nations (ASEAN+3) Strategic Conference on Food Security, held in July in Harbin, China.⁴

Another major event was the adoption of a declaration on food security at the Eighth East Asia

Summit hosted by Brunei in October. The declaration called upon member countries to (1) improve production and supply chain efficiency, (2) enhance awareness of healthy living, and (3) address environmental challenges associated with food security and mitigate the adverse impact of climate change.⁵ Self-sufficiency in grain, even though it often entails a trade-off with economic efficiency, also remains a top priority for many East Asian countries. In 2013, for example, Indonesia began implementation of a food self-sufficiency law, which it had passed in October 2012.⁶ The Philippines similarly renewed its own efforts in this area.⁷ China has sought to boost national agricultural output by investing heavily in its major grain-producing provinces. After many years of meeting its national goal of maintaining a 95 percent grain self-sufficiency rate, however, China is beginning to exhibit a willingness to revisit this mandate.⁸ For example, China will likely be the world's largest rice and corn importer by crop year 2013/2014; whether this new trend represents a permanent national policy shift remains to be seen.

URBANIZATION, STRUCTURAL TRANSFORMATION, AND FEEDING THE CITIES

The urbanization rate in East Asia, particularly in China, tends to outpace that in most other regions.⁹ In fact, China's new leaders identified urbanization as the top social and economic issue in 2013 and beyond.¹⁰ To adequately address the dimensions of urbanization, the region's leaders must consider the implications of the demographic change for food demand and supply, both regionally and globally. Given the rise in labor costs in recent

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years, East Asia is quickly losing its comparative advantage in terms of staple food production, and a recent preliminary study predicts that East Asia's food imports (particularly of staple foods) will increase.¹¹ What are the implications for the food self-sufficiency policies pursued by many governments in East Asia? Answering this question is critically important because the cost to economic efficiency will only increase. Furthermore, the structure of the farming sector has been changing, and growing incomes and aging populations are likely to induce significant changes in food-consumption patterns.¹² These changes are likely to prompt the rapid development of high-value food supply chains in East Asia. In fact, food supply chains are already upgrading rapidly throughout the region.¹³

These developments raise important questions: What are the implications for the region's smallholders, who already struggle to meet the quality standards of these chains? Which governmental policies and investment support programs can best facilitate this transition in East Asia? A number of ongoing studies supported by various donors and agencies are beginning to provide answers. For example, since 2009 the Asian Development Bank has supported several projects that IFPRI has undertaken on the dynamics of staple food value chains in select Asian countries.¹⁴ The World Bank is also commissioning an East Asia-wide study on the transformation of the region's agriculture, a study in which China features prominently.

Improved understanding of the impacts of urbanization, global climate change, and water scarcity on agricultural production would enable the formulation of an effective policy and its integration into the planning of government agricultural expenditures. In 2013, the Chinese government released a document recognizing the need for a new approach to China's agricultural development in the face of industrialization and urbanization.¹⁵ The document calls for innovative organizational forms for farming and encourages the coexistence of a variety of organizational modes, including specialized farm households, family farms, cooperatives, and corporate farming.

The new policy initiative also calls for the introduction of a code of conduct for responsible investment in rural land, particularly in the leasing and acquisition of farmland. In 2013, China began implementing plans to spend more than 320 billion yuan (US\$52 billion) over the next few years on improving land productivity through improved land leveling and irrigation. Similarly, the National Economic and Development Authority of the Philippines plans to implement several public infrastructure development projects in 2014 for a total allotment of 399 billion pesos (\$9.1 billion), which is about 35 percent higher than the funds allocated for 2013. The move is aimed at lowering the cost of transporting goods, increasing agricultural productivity, reducing natural disaster-related risks, and generating economic investments and employment.

REGIONAL AGRICULTURAL TRADE, WTO DISCUSSION, AND FOOD SECURITY

Several important developments in agricultural trade occurred in East Asia in 2013. Reports emerged that Thailand had agreed to hand over rice and rubber to China in partial payment for building its new high-speed rail system.¹⁶ China promises to purchase 1 million metric tons of rice each year from Thailand for five consecutive years starting in 2014. This agreement could have a significant impact on rice trade in Asia. After having managed record high levels of rice importation in 2012, China imported large quantities of rice again in 2013—2 million metric tons of it by September.¹⁷ China is also expected to import the maximum allowed amount of corn (reaching its import quota of 7.2 million metric tons, as imposed by China's National Development and Reform Commission) during crop year 2013/2014.¹⁸ At the same time, Southeast Asian countries, such as Thailand and Indonesia, have increasingly exported cassava to China for the country's biofuel industry.¹⁹ Despite losing some steam in 2013, China's high levels of palm oil imports from Indonesia, Malaysia, and Thailand have continued to rise. There has been an ongoing discussion on the elimination of palm oil import tariffs between China and

ASEAN countries. If the tariffs are eliminated, increased palm oil exports to China should follow. A likely consequence would be an increase in the already critical levels of deforestation in exporting countries, a situation that is now being closely monitored.²⁰

Several significant conferences took place in the final months of 2013. Conferences on food security and trade and transparency in the trade system were kicked off in Singapore in late October. These meetings called for improving the current understanding of the role of trade in food security.²¹ Given the importance of rice to the region, it is particularly important to understand both the changing role that this staple plays in regional food security and the opportunities for improving regional cooperation with respect to its trade. Both topics were included in the agenda of the World Trade Organization's Ninth Ministerial Conference, held in Bali in December.

FOOD AND GENERAL INFLATION

Inflationary trends in the Asia-Pacific region persisted in August 2013, with the regional food and general inflation indices registering annual increases of 7.5 and 5.8 percent, respectively. Food inflation has continued to outpace general inflation since January 2013. In Southeast Asia, both the general inflation and food price indexes remained stable. Indonesia was an exception, however, posting annual increases of 8.8 percent and 15.1 percent, respectively, in its general inflation and food price indexes. These increases are largely attributable to rises in the prices of rice, wheat flour, soybean, and chicken.²² In China, inflation rose to a seven-month high in September (a 3.1 percent increase), despite the economic slowdown. This increase was driven by a jump in food prices caused by floods and drought (a 4.7 percent year-to-year increase).²³ Food prices, particularly for vegetables, started to increase significantly toward the end of the year. Food and general inflation remain issues for the region that will require careful monitoring in 2014.

CHINA AND MYANMAR DYNAMICS

Two of the new policy directions in East Asia in 2013 are particularly worth watching in 2014 and beyond. First, in November 2013, the Central Committee of the Communist Party of China issued a Decision on Major Issues Concerning Comprehensively Deepening Reform.²⁴ The document detailed a number of broad reforms designed to support sustained economic growth and to address societal concerns. The decision, which seems to reflect a commitment of the Chinese government to continue deepening economic liberalization and enhancing the role of market forces, will likely put China on a trajectory to transform itself into a market economy. In particular, farmers will be allowed to sell or mortgage their homes and land and to pass on land-use rights to their children. They would also be given shares of land collectively belonging to the village. More details will likely emerge from different ministerial and department-level meetings, particularly as the Central Committee's decisions are analyzed and converted into specific policies over the first four months of 2014.

A second policy involves Myanmar, which currently ranks as the poorest country in Southeast Asia. By undertaking a new wave of political reforms in 2013, Myanmar has a chance to set itself on the same road to economic expansion that has brought prosperity to its regional neighbors. Without targeted policy efforts and regulations to level the economic playing field, however, the benefits of new public investments and policy reforms may only filter down to a select few. Small-scale farmers—the backbone of Myanmar's economy—could very well be excluded from the benefits of this growth. If Myanmar is to achieve its ambitions for equitable growth, political leaders must put the adoption of new policies and regulations to generate this equitable growth at the heart of their democratic reform agenda.²⁵ Michigan State University and IFPRI are now working together, under the support of the US Agency for International Development, to provide advice on strategic development support for Myanmar's agriculture. ■

Latin America and the Caribbean

Eugenio Díaz-Bonilla and Maximo Torero



AS EVENTS IN 2013 MADE CLEAR, agriculture in Latin America and the Caribbean (LAC) matters. It matters for global food security, given the region's role as the largest net exporter of agricultural and food products. It also matters for global environmental sustainability, as LAC is the largest provider of global environmental goods, including biodiversity and oxygen, in the developing world. At the same time, new satellite data show that deforestation continues, though at somewhat lower rates. Substantial attention to research and development and to balanced public policies and investments is needed if the region's agriculture is to continue to remain strong while also reducing encroachment on forest areas. In addition, eradication of undernutrition in LAC is still unfinished business, even as countries in the region face an increasing obesity problem. These issues are examined in more detail below.

FOOD SECURITY AND NUTRITION

Out of the 24 LAC countries considered in IFPRI's 2013 Global Hunger Index, 10 ranked as having low levels of hunger, and 7 others fell in the moderate range. Only Haiti was categorized as "alarming." In addition, 21 countries maintained or improved their ranking from the previous year. When stunting is used as the primary indicator of undernutrition, however, LAC is not on track to meet the First Millennium Development Goal. Moreover the view from the perspective of the region's poorest, especially indigenous children, is even more discouraging.¹

The challenge of undernutrition has been joined by the problem of growing obesity in the region. LAC is home to three of the four countries with the

world's highest percentage of households having both an overweight mother and a malnourished child or children.² As a result, several countries in the region have either enacted or discussed the enactment of new legislation. Chile's new law, Nutritional Composition of Nutrients and Their Advertising, for instance, is one of the first in the world to require warning labels on foods high in fat, sugar, and salt. Peru has also recently passed a law to combat childhood obesity and to prevent increases in diabetes and cardiovascular problems. Mexico is considering the imposition of a tax on sugar in beverages and on other unhealthy food.

PRODUCTION AND TRADE

Although final data for 2012–2013 are not yet available, LAC seems to have maintained or even increased its share of global agricultural production (valued in constant terms) at about 13 percent of global output.³ LAC remains the world's main net exporting region, being a major exporter of a variety of important agricultural and food products. The region accounts for 53 percent of global exports of oilseed meal cakes, 53 percent of sugar, 46 percent of coffee, 36 percent of oilseeds, 31 percent of poultry meat, 25 percent of corn, and 23 percent of bovine meat. Moreover, the region's share of total goods imported by several other regions as measured in calories is high, having increased to 3.5 times its 1991 level. In 2007, for instance, LAC supplied about 18 percent of the calories imported by Africa and 20 percent of those imported by Asia.⁴

Some recent developments related to production have implications for global food availability and prices. One was that during 2012–2013 Brazil

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displaced the United States as the largest exporter of soybeans, with Argentina a distant third and Paraguay ranking fourth. These LAC countries, which together produced about 51 percent of global soybean exports in 2011–2012, are projected to account for almost 57 percent of such exports in 2013–2014. Second, because of poor weather in the United States, Brazil and Argentina became the first- and second-largest exporters of coarse grain, respectively, in 2012–2013. A third development was that whereas Argentina exported almost 13 million metric tons (mmt) of wheat in 2011–2012, this output dropped to only 4 mmt in 2012–2013, due in part to weather conditions and to different marketing and price restrictions. Although production and exports are expected to improve in 2013–2014, given anticipated improvements in weather, they should still remain below historical levels. Fourth, although Brazil continues to be the second-largest beef and veal producer (responsible for 16 percent of total world production), according to US Department of Agriculture estimates, India overtook Brazil as the largest exporter of those products in 2013.

In addition, 2013 saw an outbreak of coffee leaf rust in Central America, Mexico, and Peru. The epidemic, according to the International Coffee Organization, was one of the worst ever recorded, affecting more than 50 percent of the total coffee-growing area in Central America. The organization expects the impact to be even more severe in 2013–2014.⁵

LAND, DEFORESTATION, AND CLIMATE CHANGE

The LAC region has a relatively high percentage of both suitable farmland that is currently

uncultivated (such as the lowlands in Bolivia, Brazil, and Paraguay) and areas where there is a large gap between current and potential yields (such as in Ecuador, the highlands in Bolivia, and some countries in Central America).⁶ Therefore the region can, in principle, further expand production by increasing both area under cultivation and productivity. However, given that LAC accounted for two-thirds of global deforestation from 1990 to 2010⁷ and that land-use change contributes more to the region's greenhouse gas emissions than any other source, LAC countries are reconsidering the costs and benefits of further area expansion.⁸ In fact, several countries have launched initiatives in recent years to reduce emissions from deforestation and forest degradation. It has, however, been difficult to evaluate the impact of those initiatives. With the 2013 launch of the Terra-i project, which uses NASA satellite data, it will now be easier to monitor deforestation in real time.⁹

OTHER POLICY ISSUES

Exchange rates in several LAC countries have appreciated, putting pressure on agricultural production and leading to calls to increase support for the sector. Conflicts over land ownership in Peru, Panama, and Honduras have prevented the implementation of projects to address deforestation and generate carbon sinks. Uncertainty over land ownership has also led recently to social tensions and even protests in Brazil and other countries. Exploratory talks between the government and guerrilla groups in Colombia that began in 2012 may offer the potential for expanding agricultural production in areas previously ridden by violence¹⁰ and have led to broader requests for rural development and subsidies and trade protection for agriculture. ■