

RECURRING **STORMS**

Food Insecurity, Political Instability, and Conflict

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A REPORT OF THE CSIS GLOBAL FOOD SECURITY PROJECT



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Contents

IV	Acknowledgments		
V	Executive Summary		
1	Introduction		
6	CHAPTER 1 Ongoing Conflicts, Political Instability, and Food Insecurity		
6	Afghanistan		
8	Nigeria		
10	Syria		
11	Are the Sustainable Development Goals (SDGs) Feasible?		
15	CHAPTER 2 Recovering from Conflict		
16	Governance for Food Security in a Post-Conflict State		
17	Lessons of Experience		
28	CHAPTER 3 Quelling the Perfect Storm of 2007/08		
28	The Immediate International Response		
29	Lessons Learned		
31	Facing New Threats to Food Security: The Post–L'Aquila Agenda		
33	A New Food Security Objective: Resilience		
36	CHAPTER 4 Looking Forward		
39	About the Author		

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Executive Summary

Sharp rises in global food prices in 2007/08 jolted global political leaders out of any complacency they might have had regarding the future of food and agriculture. Street demonstrations and food riots broke out in more than 40 countries across the world, provoking unrest and violence in several places.

The L'Aquila Food Security Initiative, launched by the G-8 and the G-20 in 2009, brought new funding and energy to the task of quelling the "perfect storm" of food insecurity set off by spiking global food and fuel prices, financial and commodity market turmoil, the competition of biofuel production, and adverse weather in key agricultural regions. The L'Aquila Food Security Initiative successfully reversed a decades-long decline in international support for agricultural development.

To implement the L'Aquila Initiative, programs were put in place across the developing world to increase agricultural productivity, strengthen smallholder farmer linkages to commercial markets, and ensure that youth, women, and marginalized populations were full participants in the growth of the sector. But as this work went forward, new threats to sustainable food security became apparent.

Changes in global weather patterns are now projected to have potentially devastating impacts on agriculture in the coming years and decades. The rising "double burden" of malnutrition already threatens to dampen global progress toward better health. Demographic change—a bulging population of youth in Africa and rapid urbanization—is creating opportunities for an economic growth spurt that will affect food demand and organized protests when food security is endangered. Food safety issues, economic and social inequities, and food price volatility are seen as persistent disrupters of food systems and food security. Outbreaks of civil unrest and violent conflict have deprived millions of reliable access to food and challenged their physical security and social cohesion. Whether these threats will combine to drive repeats of 2007/08's "perfect storm" of food insecurity in the future is unknown. But it is predicted that, singly or together, they already pose critical risks—likely to erupt in "recurring storms"—somewhere around the globe.

The L'Aquila Initiative was brought to a close in 2012. But in 2015, "ending hunger, achieving food security and improved nutrition, and promoting sustainable agriculture" was adopted as one of 17 Sustainable Development Goals (SDGs) to be accomplished by 2030. Strong international collaboration to build more productive and resilient households, nations, and food systems—to help them withstand the likely recurring storms of hunger, food insecurity, and agricultural market volatility—seems like the obvious path forward.

However, there is little agreement on what approaches will work best to build greater productivity and resilience for food security. This is especially the case in countries and regions where vulnerable households live in extreme poverty or food systems have been disrupted by conflict. Further, the needed international high-level political commitments to providing

additional financing and developing effective, evidence-based solutions—the heart of the L'Aquila Food Security Initiative—are not assured.

This report reviews the prospects for increasing food security at the scale and pace anticipated in the 2030 SDGs. The stories of three ongoing conflicts—in Afghanistan, Nigeria, and Syria—vividly underscore the explosiveness of situations in which people are unable to get the food they want and need. The local and global responses to these crises also signal the magnitude, diversity, and complexity of actions that will be urgently required, post-conflict, to build food systems sufficiently resilient to provide vulnerable populations sufficient access to safe, affordable, and nutritious food.

The experiences of several post-conflict countries highlight some of the critical issues that must be prioritized in order to regain sustainable food security: building peace and stability, establishing effective institutions of governance relevant to food and agriculture, and, at the same time, addressing immediate nutritional needs as well as preparing to handle emerging threats to food and agriculture.

As countries and their development partners learned in their joint efforts to realize the goals of the L'Aquila Food Security Initiative, sustainable food security for all is not easily achieved. Even when national leaders are committed to pursuing market-based, inclusive agricultural growth as a clear pathway to improved food security, and there is relative peace and stability, many risks and uncertainties—storm clouds—loom on the horizon.

To meet the challenges of building more productive and resilient food systems in order to achieve food security for all, it is essential to renew and expand international collaboration in order to anticipate and prepare for recurring storms of food insecurity. In addition to following the L'Aquila example of high-level political commitment to a clear objective and the mobilization of an increased level of investments in food security, national and international political leaders should:

- Establish an annual high-level summit for reviewing progress on global food security;
- Work jointly to develop strategic plans that will enable populations in conflict-affected countries to recover and to strengthen their resilience to future threats to food security; and
- Seek a better balance of effort among the many actors involved in food security.

Introduction

Sharp rises in global food prices in 2007/08 jolted global political leaders out of any complacency they might have had regarding the future of food and agriculture.¹ Street demonstrations and food riots broke out in more than 40 countries across the world, provoking unrest and violence in several places.²

Josette Sheeran, then-executive director of the UN World Food Program (WFP), referred to the situation as that of "the perfect storm." Soaring food and fuel prices combined with turmoil in global financial markets, adverse weather in important agricultural regions, and competition from biofuel production to reduce food availability and affordability, two of the key pillars of food security. Uncertainty as to what caused the food price rises and how long they might persist led to commodity market volatility, hoarding, and hastily devised interventions. While many nations took policy actions (export bans, price controls) to stabilize local supplies and protect the food security of the poorest and most vulnerable, the measures taken often had perverse effects. Instead of providing stability, they intensified the storm and the food insecurity experienced by poor families around the world.

Why was there so little warning of this storm? Many forecasters in the early 2000s were actually predicting a positive global food outlook. The world had experienced a long, declining trend in global food prices. This trend was seen as reflecting improvements in both availability and affordability of food supplies. Progress had been made in increasing agricultural productivity in sub-Saharan Africa as well as Asia. Incomes were rising and the emergence of a more affluent middle class with changing dietary patterns confirmed the transition to a modern, market-based food economy. International trade in food and agricultural commodities was ramping up; the total value of agricultural exports tripled in real terms, from around \$250 billion in 1985 to more than \$750 billion in 2011.⁵

¹ Food and Agriculture Organization of the United Nations, "World Food Situation: FAO Food Price Index," http://www.fao.org/worldfoodsituation/foodpricesindex/en/.

² Emmy Simmons, "Harvesting Peace: Food Security, Conflict, and Cooperation," Wilson Center, New Security Beat, Environmental Change & Security Program report, vol. 14, issue 3, September 3, 2016, https://www.newsecuritybeat.org/2013/09/harvesting-peace-food-security-conflict-cooperation/.

³ World Food Programme. "WFP chief calls for support to combat 'perfect storm' over Africa's rural poor," November 15, 2007, https://www.wfp.org/news/news-release/wfp-chief-calls-support-combat-perfect-storm-over-africas-rural-poor

⁴ The definition of food security used in this paper is that agreed to at the 1996 World Food Summit: "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life." This definition encompasses the four dimensions (or pillars) of food security: availability, accessibility, utilization, and stability (or predictability). Food *insecurity*, by contrast, implies that there are some members of the population who, at least on some occasions, do not have the ability to acquire or purchase the volume or quality of food they need or want for an active, healthy life. Food and Agriculture Organization, "Food Security," Policy Brief, issue 2, June 2006, http://www.fao.org/forestry/13128-0e6f36f27e0091055bec28ebe830f46b3.pdf.

⁵ Trade measured in 1990 constant prices. Jana Schwarz, Erik Mathijs, and Miet Maertens, "Changing Patterns of Agri-Food Trade and the Economic Efficiency of Virtual Water Flows," *Sustainability* 7 (2015): 5542–63.

There was some worry regarding the distribution of food supplies—or, more precisely, the access of poor people to available food. A 1999 Food and Agriculture Organization (FAO) report concluded that it wasn't about enough food production, but about incomes. Food insecurity exists because of economic development failures and the fact that poverty-stricken people don't have enough money to purchase food or to access resources to produce their own.⁶

The landmark 2008 World Development Report (WDR) on Agriculture for Development, the first to focus on agriculture in 25 years, suggested that both food availability and access could be addressed simultaneously. The WDR cast agricultural development as important principally for its role in reducing rural poverty and spurring broader economic growth. The rural poor, data showed, could disproportionately benefit from agricultural growth as a pathway out of poverty. Additional food production would enable them to improve their own and others' food security, especially if associated with growing efficiency and reach in agricultural markets.

The WDR message was welcome news to those who had watched in dismay as global development assistance priorities in the 1990s turned decisively away from agriculture⁸ even as more than 70 percent of the poor pursued their livelihoods in rural areas.⁹ International aid flows for agricultural development had dropped dramatically over the years: from \$6.2 billion in 1980 to \$2.3 billion in 2002, with the share of total official development assistance targeted for agriculture falling below 4 percent of total flows, down from a peak of 17 percent in 1982. Multilateral development institutions slashed spending on agriculture over this period by 85 percent.

Official humanitarian assistance and food aid, on the other hand, nearly tripled from 1990 to 2000, rising from \$2 billion to \$5.9 billion. Put another way, food crisis response took precedence over agricultural development investments that arguably might have prevented or mitigated such crises. In FY 2003, for example, when more than 80 percent of Ethiopia's population was employed in agriculture, more than \$575 million in U.S. funding was directed to

⁶ Nikos Alexandratos, "World food and agriculture: Outlook for the medium and longer term," *Proceedings of the National Academy of Sciences of the United States of America*, May 25, 1999, 96 (11): 5908–14.

⁷ World Bank, "World Development Report: Agriculture for Development," 2008, http://siteresources.worldbank.org/INTWDR2008/Resources/WDR_00_book.pdf.

⁸ Lidia Cabral and John Howell, "Measuring aid to agriculture and food security," Briefing Paper 72, Overseas Development Institute, February 2012, https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7588.pdf; and UN Conference on Trade and Development (UNCTAD), *Addressing the Global Food Crisis: Key Trade, Investment and Commodity Policies in Ensuring Sustainable Food Security and Alleviating poverty* (Geneva: May 2008), 7, http://www.unctad.org/sections/edm_dir/osg_2008_1_en.pdf.

⁹ Shaouhua Chen and Martin Ravallion, "Absolute poverty measures for the developing world, 1981–2004," *Proceedings of the National Academy of Sciences of the United States of America* 104, no. 43 (October 23, 2007), 16757–62, http://www.pnas.org/content/104/43/16757.full.pdf.

¹⁰ Judith Randel and Tony German, "Trends in the financing of humanitarian assistance," in *The New Humanitarianisms: A Review of Trends in Global Humanitarian Action*, ed. Joanna Macrae (London: Overseas Development Institute, April 2002), 19–28, https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/293.pdf.

the provision of food aid. 11 Yet only \$6 million had been requested for the two projects supporting agricultural development in that year. 12

But the "perfect storm" of 2007/08, it turns out, was the first of many food-related crises to rock the world over the past eight years. Repeated outbursts of political instability and conflict over food prices, supplies, and shifting policies in North Africa and the Middle East underscored the potential explosiveness of situations in which people find themselves unable to get the food they want and need.¹³

Four years of severe drought in Syria from 2007–2010 devastated the agricultural sector and triggered massive change in the countryside. Farmers abandoned their land and migrated to cities in search of jobs that didn't exist, 14 and the ensuing social and economic disruption helped to fan the flames of political conflict that ultimately led to the 2011 outbreak of civil war. There is no question that the current conflict in Syria has deepened food insecurity—in some cases, to crisis levels.15

Further, natural disasters appear to have grown in frequency and impact, causing massive increases in food insecurity among affected populations. ¹⁶ Typhoon Haiyan in the Philippines (2013) and repeated droughts across Africa have resulted in growing awareness of the rising uncertainties and challenges posed by climate change, demographic trends, and inequities within the global economy. Each of these "recurring storms" has challenged local governance

 $^{^{11}}$ It is unlikely that all of this funding was received, as the "actual" DA budget for FY 2003 was less than half of the amount requested, per the reported Request by Region, http://www.state.gov/documents/organization/28975.pdf. See USAID. "USAID and Predecessor Loans and Grants/Food Aid to Ethiopia, FY1952-2011," October 26, 2011, https://www.usaid.gov/sites/default/files/documents/1860/Ethiopia%20Loans%20and%20Grants%201952-2011.pdf; and USAID, "Budget Justification to the Congress," 2003, 211, http://pdf.usaid.gov/pdf_docs/PDABZ984.pdf. ¹² U.S. Department of State, "U.S. Congressional Budget Justification," 243–44, http://www.state.gov/documents/ organization/28975.pdf.

¹³ Caitlin E. Werrell and Francesco Femia, eds., "The Arab Spring and Climate Change: A Climate and Security Correlations Series," Center for American Progress, February 2013, https://cdn.americanprogress.org/wpcontent/uploads/2013/02/ClimateChangeArabSpring.pdf. Food prices were identified as the "precipitating condition" for social unresent in Egypt in 2011. See also Marco Lagi, Karla Z. Bertrand, and Yaneer Bar-Yam, "The Food Crises and Political Instability in North Africa and the Middle East," New England Complex Systems Institute, September 28, 2011, http://necsi.edu/research/social/food_crises.pdf. Today, food prices in Egypt are rising again as recent currency devaluation has led to higher prices and shortages of imported foods. While Egypt produces two-thirds of its sugar supply, for example, it relied on imports to meet total demand. Journalists are reporting growing levels of discontent and political tensions, even as the government seeks to respond to demands of both consumers and producers by adjusting import tariffs and local production incentives.

¹⁴ Carnegie Endowment for International Peace, "Food Insecurity in War-Torn Syria: From Decades of Self-Sufficiency to Food Dependence," June 4, 2015, http://carnegieendowment.org/2015/06/04/food-insecurity-in-war-torn-syriafrom-decades-of-self-sufficiency-to-food-dependence-pub-60320. See also Francesca de Chatel, "The Role of Drought and Climate Change in the Syrian Uprising: Untangling the Triggers of the Revolution," Middle Eastern Studies (2014), https://blogs.commons.georgetown.edu/rochelledavis/files/francesca-de-chatel-drought-insyria.pdf; and Clemens Breisinger, Olivier Ecker, and Jean Francios Trinh Tan, "Conflict and Food Insecurity: How Do We Break the Links?," in 2014-2015 Global Food Policy Report (Washington, DC: International Food Policy Research Institute, 2015), http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/129072/filename/129283.pdf. ¹⁵ World Food Programme and Food and Agriculture Organization, "Special Report: Crop and Food Security Assessment Mission to the Syrian Arab Republic," November 14, 2016, http://documents.wfp.org/stellent/ groups/public/documents/ena/wfp288721.pdf.

¹⁶ Daniel Huber and Jay Gulledge, "Extreme Weather & Climate Change: Understanding the Link and Managing the Risk," Center for Climate and Energy Solutions, December 2011, http://www.c2es.org/docUploads/white-paperextreme-weather-climate-change-understanding-link-managing-risk.pdf.

structures and food systems to address not only immediate food needs but to do so in ways that would strengthen, rather than undermine, the resilience of affected households and communities. Not all have succeeded. These experiences have added to the depth and range of concerns for the future of food security that were stirred up in the turbulence of 2007/08.

This report draws on these experiences to explore global commitments and capacities to deal with the recurring storms of food insecurity, political instability, and conflict that will likely emerge in the next 20 years. How might these storms impede, or perhaps derail, progress toward the important SDGs for 2030? Is eradicating hunger and achieving food security (SDG 2) a realistic global goal when conflict and political instability are still such a common threat? What have we learned from past efforts to predict, manage, and recover from food crises and conflict that would be helpful both to minimize the wreckage and to "build back better"? What lessons might be helpful in averting or avoiding storms in the future? How might the different actors involved (military and peacekeeping forces, political leaders, technical experts, business investors, and communities) work more effectively, either collaboratively or in parallel, to predict, prevent, or foster recovery from storms that do occur?

Chapter 1 briefly recaps the food security context in three countries in conflict today: Afghanistan, Nigeria, and Syria. Each country is experiencing its own perfect storm of political confrontation, economic collapse, and human suffering. Food insecurity is an important element in each of these conflicts, both as a result of the ongoing violence and as an accelerant that has contributed to civil unrest. Further, when one area is swept into conflict, there are inevitable spillovers into neighboring countries, thus extending instability and food insecurity.

Humanitarian assistance continues to play a role in meeting food needs even in a time of war, but its limitations are painfully evident. The security of humanitarian personnel involved in food aid is threatened, and the peaceful conditions and/or political commitments essential for safe passage of assistance have been elusive. Conflict-related food insecurity today is seriously testing the capacities of the international community to respond.

Chapter 2 reviews the experiences of post-conflict countries, where recovery from the food insecurity generated by the conflict is imperative. Establishing or strengthening effective, legitimate systems of governance relevant to food security, nutrition, and health is generally a key post-conflict priority, essential to maintaining peace and preventing re-ignition of hostilities. Assistance from the international community, including the provision of peacekeeping forces, helps to address pressing needs. Evidence from a number of countries shows, however, that extreme care must be taken to avoid undermining the emergence of new government institutions that will be capable of dealing with the many factors critical for political stability and food security over the longer term: sustainable agricultural production, fair trade, inclusive economic growth, access to education and healthcare, and the ability of all citizens (including women and youth) to find gainful employment.

International efforts to quell the perfect storm of food insecurity experienced in 2007/08 serve as the starting point for Chapter 3. The political leadership of the G-8 in responding to the global food price crisis resulted in the L'Aquila Food Security Initiative. Presidents and prime ministers committed to mobilize more than \$20 billion in new funding for collaborative efforts to address issues of food security over a three-year period. The L'Aquila Food Security Initiative

promised to take a comprehensive approach to food security, including: "increased agriculture productivity, stimulus to pre- and post-harvest interventions, emphasis on private sector growth, smallholders, women and families, preservation of the natural resource base, expansion of employment and decent work opportunities, knowledge and training, increased trade flows, and support for good governance and policy reform." Seven years on, it has become clear that building sustainable food systems that are efficient, innovative, and resilient—and suited to the food and nutrition aims embedded in the concept of food security—will require sustained investments over the coming decades. Are political leaders prepared to undertake new "L'Aquila" commitments?

Chapter 4 concludes. The 2030 SDGs project an optimistic vision of substantial global progress in political, economic, and social spheres within the coming 15 years. However, the prospect of destructive, recurring storms is real. Sustained high-level attention to global food security is essential. In addition to carrying the lessons of the L'Aquila Food Security Initiative forward, the report proposes that national and international leaders should hold an annual summit to review progress, work jointly in fragile and conflict-affected states to develop strategic plans for both recovery and resilience, and seek a better balance of effort among different actors for sustained success.

¹⁷ L'Aquila Food Security Initiative, " 'L'Aquila' Joint Statement on Global Food Security," July 10, 2009, http://www.g8italia2009.it/static/G8_Allegato/LAquila_Joint_Statement_on_Global_Food_Security%5B1%5D,0.pdf.
¹⁸ "Food systems" encompass agricultural production but also the actions of food marketing, processing, storage, distribution, and consumer choice and purchase. See Global Panel on Agriculture and Food Systems for Nutrition, "Technical Brief: How Can Agriculture and Food System Policies Improve Nutrition?," November 2014, http://www.glopan.org/sites/default/files/Global%20Panel%20Technical%20Brief%20Final.pdf.

01

Ongoing Conflicts, Political Instability, and Food Insecurity

In 2014, just over 170 million people were estimated to be directly affected by ongoing, armed conflict, a number that has probably risen as conflicts have escalated in the Middle East and South Sudan. Today, ongoing conflicts in Syria, Yemen, and South Sudan are causing enormous social and economic devastation and levels of food insecurity that are, to use the Global Hunger Index term, "extremely alarming."

Each of these conflicts reflects its own perfect storm of political confrontation, economic collapse, and human suffering. Further, violent conflicts instigated by nonstate actors—the Taliban, Al Qaeda, ISIS, Boko Haram—are spilling across borders. The stories of conflict and food insecurity in Afghanistan, Nigeria, and Syria are briefly recounted here to frame the challenges of the coming decades. Food insecurity has been an important element in each, both as a result of the ongoing violence and as an accelerant that has contributed to civil unrest. Dealing with the fallout from these conflicts requires coordinated, comprehensive interventions in security, diplomacy, development, and humanitarian assistance.

Afghanistan

Eighty percent of Afghanistan's population is estimated to depend on agriculture, with food crops, livestock, and opium poppies the main sources of rural incomes. Land ownership is highly inequitable in the most productive rural areas, with politically well-connected landlords offering land for sharecropping to poorer families. The food security of Afghanistan as a nation depends on commercial imports of wheat, largely from neighboring Pakistan. Both international development and humanitarian assistance have been important sources of funding in Afghanistan since the NATO-led military invasion of the country in the wake of the 9/11 attacks by Al Qaeda on the United States.

Since 2002, the U.S. Agency for International Development (USAID) and many other international donors (bilateral, multilateral, and nongovernmental organizations, or NGOs) have implemented a substantial list of development projects. Many projects have been aimed at promoting food production for home consumption and sale as well as developing infrastructure for production and processing. Development assistance to Afghanistan rose from \$1.1 billion in

¹ Alex De Waal, "Armed Conflict and the Challenge of Hunger: Is an End in Sight?," *Global Hunger Index*, ch. 3, 2015, http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/129685/filename/129896.pdf.

2002 to \$6.2 billion in 2012. Humanitarian assistance dropped from \$1.1 billion in 2002 to less than \$0.5 billion in 2013.²

Military, humanitarian, and development objectives and actions converged in Afghanistan as the United States and other members of the NATO coalition strove to transform structures of governance, defense, and the economy simultaneously. Stapleton and Keating (2015) conclude that the approach was incoherent. "Divergent objectives within and between the military and civilian sectors gave rise to command-and-control problems and intra-agency tensions. An imbalance in resourcing military and civilian sectors characterized the 2001–14 intervention. Giving more weight to civilian perspectives on timelines and priorities for state-strengthening would help efforts to achieve stability." Viehe et al. (2015) examined the involvement of civilians in military-led Provincial Reconstruction Teams (PRTs) and concluded that the PRTs did not produce "sustainable, nation-wide progress, [and] potentially undermin[ed] the utility of the civilian representatives as well as longer-term U.S. objectives in Afghanistan."4

The United States, as the largest source of funding in Afghanistan, strongly promoted the objective of state-building, but the central and regional governments of Afghanistan remain, by all accounts, weak, corrupt, and unable to meet citizens' needs for their health and wellbeing. A reduction of the international military force in 2014 has led to a resurgence of the Taliban and the reemergence of a host of conflicts among various ethnic groups, warlords, and political figures as they vie for resources and control. Levels of violent, armed aggression and civil unrest have remained high.

The withdrawal of foreign troops contributed to an economic collapse. Funding and jobs that had been associated with military-related construction, procurement, or other services dried up. An increase in insurgent activities destroyed infrastructure and made it difficult to travel for work. Many Afghans have moved to informal settlement cities in search of employment opportunities where housing conditions are precarious and jobs have proved to be scarce.

International development and humanitarian assistance efforts have continued, although security constraints have reportedly curbed their effectiveness. Competition for resources continues to fuel the corruption that exploded during the war. Data from rural surveys underscore the fact that social relationships remain critical for poor households' survival. These relationships enable many vulnerable households to preserve food security by providing access to land, sources of employment, and social protection. However, in some cases, poor households fall prey to local politics and constrained resources. 5 Formal institutions of

² Lydia Poole, "Afghanistan Beyond 2014: Aid and the Transformation Decade," Briefing Paper, Global Humanitarian Assistance, November 2014, http://www.globalhumanitarianassistance.org/wp-content/uploads/2014/11/ GHA_Afganistan2014_.pdf.

³ Barbara J. Stapleton and Michael Keating, "Military and Civilian Assistance in Afghanistan: An Incoherent Approach," Opportunity in Crisis Series No. 10, Chatham House Brief, July 2015, https://www.chathamhouse.org/sites/files/ $chat ham house/field/field_document/20150722 Military Civilian Assistance Afghanistan Stapleton Keating.pdf.$

⁴ Ariella Viehe, Jasmine Afshar, and Tamana Heela, "Rethinking the Civilian Surge: Lessons from the Provincial Reconstruction Teams in Afghanistan," Center for American Progress, December 2015,

https://cdn.americanprogress.org/wp-content/uploads/2015/12/14082221/CiviliansAfghanistan-reportFINAL.pdf. ⁵ Paula Kantor and Adam Pain, "The role of social resources in securing life and livelihood in rural Afghanistan," Bath Papers in International Development, 2011.

governance still have limited reach into rural areas; the upsurge in violence since 2014 has encouraged many households to leave for urban centers.

A 2014 study of urban poverty, food security, and nutrition in Afghanistan's large cities provides intimate portraits of families displaced to informal settlements, where they exist at the margins of society and the national economy. In spite of relatively high levels of food production and imports at a national level in 2014, the poor families interviewed in the study related stories of their food concerns.

Accessing food is the main challenge that urban households face on a daily basis. Food security in the city is a question of income and access to stable employment, both particularly challenging for households with addicts, female-headed households, and households with low levels of education. Low and unreliable income often necessitates reducing the quantity of food in the household on a regular basis. More importantly, it means sacrificing food diversity, as many food items become unaffordable. It also causes high levels of anxiety as the income each day will determine both the nature and amount of food the household will consume.⁷

A focus group of women in Kabul summed up their situation: "We have no money to buy wheat, oil, flour or beans. We try to borrow but we have asked for credits so many times to the shopkeepers that they will not let us do that anymore. There is no community support because everyone is poor here; we can't even help each other. We just buy food when our men bring back money."⁸

Nigeria

A February 2016 posting by Jennifer Cooke of the Center for Strategic and International Studies provides a striking account of the linkage between the armed insurgency known as Boko Haram and food security in the northeast region of Nigeria.

Boko Haram militants launched a brutal assault on three villages just outside of the Borno State capital of Maiduguri on Saturday, fire-bombing houses, detonating improvised explosives and suicide vests, and leaving an estimated 85 to 100 people dead. Assailants reportedly seized food and livestock before torching the villages of Dalori, Walori, and Kofa. Military guards foiled an attempt to penetrate the nearby Dalori camp for internally displaced persons (IDPs), which houses some 22,000 people, among them 8,000 children, most of whom were rescued last year from Boko Haram-held towns. The Dalori attack is a stark illustration of the group's enduring lethality and of the continued vulnerability of Borno State communities. The Nigerian military has made

⁶ Samuel Hall, "A study of poverty, food security and resilience in Afghan cities," Urban Poverty Report for the Danish Refugee Council and People in Need, 2014, http://samuelhall.org/REPORTS/DRC%20PIN%20Urban%20Poverty% 20Report.pdf.

⁷ Ibid., 8.

⁸ Ibid., 57.

important gains against Boko Haram, but there is a long way to go in protecting civilians and building toward a more enduring peace.9

Not surprisingly, in July 2016, the government of Nigeria declared a food and nutrition emergency in areas recently liberated from Boko Haram. Responding NGOs found nutritional conditions to be more dire than anticipated and joined the government in calling for more funding to reach the millions of vulnerable people—including more than 250,000 acutely malnourished children—with needed food and healthcare.10

By November 2016, however, reports of an insurgent rebound by Boko Haram indicated that the conflict was far from over. 11 Increasing evidence from Doctors without Borders shows that infant and child mortality rates in the region have been substantially higher than expected. 12 The October 2016 Vulnerability Assessment published by the World Food Program makes it clear that food insecurity resulting from the Boko Haram aggression is continuing to devastate the populations in northeastern Nigeria, Cameroon, Chad, and Niger. 13

However, this regional conflict in Nigeria also illustrates the broader challenges faced by governments and populations in fragile situations. While Nigeria is a lower-middle-income country, with a democratically elected government eager to show its national population of more than 180 million that it has turned the corner in defeating the insurgency, lower global oil prices have reduced national revenues and led to depreciation of Nigeria's currency. This, in turn, is driving up food prices throughout the country, making it difficult for low-income consumers everywhere, but especially in the conflict-affected zones in the northeast, to meet their food needs without external support. 14 It remains to be seen whether the newly appointed Presidential Committee on the Northeast Initiative will be able to mobilize the 2 trillion naira (more than \$6 billion) required to rebuild regional infrastructure¹⁵ and to meet the food security needs of the 25 million people estimated to be affected by the conflict. 16

July 20, 2016, http://www.actionagainsthunger.org/blog/neglected-hunger-crisis-surges-behind-frontlines-fightingnortheast-nigeria.

⁹ Jennifer Cooke, "Priorities in the Continuing Fight against Boko Haram," CSIS Commentary, February 5, 2016. https://www.csis.org/analysis/now-comes-hard-part-five-priorities-continuing-fight-against-boko-haram. 10 Action Against Hunger USA, "Neglected Hunger Crisis Surges behind Front Lines of Fighting in Northeast Nigeria,"

¹¹ Jason Burke, "Nigerian clashes cast doubt on claim that Boko Haram is on its knees," *The Guardian*, November 20, 2016, https://www.theguardian.com/world/2016/nov/20/nigerian-clashes-doubt-boko-haram-technically-defeated. ¹² Michelle Faul, "Thousands of kids dying in northeast Nigeria, says survey," Associated Press, November 16, 2016, http://bigstory.ap.org/article/35a8b66eb7b447b7b526524a4f507207/new-msf-survey-thousands-kids-dyingnortheast-nigeria.

¹³ World Food Programme, "Insecurity in northern Nigeria—Regional Impact," WFP Situation Report #10, November 20 2016, http://reliefweb.int/sites/reliefweb.int/files/resources/WFP%20Insecurity%20in%20Northern%20Nigeria% 20Situation%20Report%20%2310,%2020%20November%202015.pdf.

¹⁴ USAID, "Food Assistance Fact Sheet: Nigeria," 2016, https://www.usaid.gov/nigeria/food-assistance.

¹⁵ Senator Iroegbu and Segun Awofadeji, "Danjuma—N2 Trillion Required to Rebuild North-East Nigeria," This Day, February 4, 2016, http://allafrica.com/stories/201602050187.html.

¹⁶ Assessment Capacities Project, "Northeast Nigeria Conflict," August 24 2015, http://reliefweb.int/sites/reliefweb.int/ files/resources/s-acaps-secondary-data-review-nigeria-24-august-2015.pdf.

Syria

Syria's agricultural sector reportedly accounted for up to 40 percent of national employment at the start of the conflict in 2011.¹⁷ Severe drought from 2007–2010 damaged production capabilities.¹⁸ Farming families migrated to urban areas in the west and south of the country, where access to food was better. Employment opportunities, however, were limited. Street demonstrations called for assistance from the Assad government, reflecting similar uprisings associated with the "Arab Spring" across North Africa and the Middle East. In Syria, the demonstrations were met with force and the situation soon tipped into civil unrest and violent conflict.

With continued displacement of populations within and out of the country, agricultural production has severely declined, productive assets have been destroyed or looted, and Syria, once a thriving agricultural economy, increasingly depends on food imports and humanitarian assistance. As of mid-2015, the United Nations estimated that nearly 10 million Syrians were food insecure and, of these, nearly 7 million were "severely" food-insecure, unable to survive without humanitarian assistance.¹⁹

The World Food Program's Vulnerability Assessment issued at the end of 2015 reported:

The picture is highly fluid and rapidly changing. It is of a country and its people caught in complex conflict, assailed not just by the trauma of physical insecurity but by its many by-products, including displacement and hunger. The canvas is populated by images of women, men and children far from home and kin and unable to return; their faces lined with worry, their bodies leaner and more fragile than they once were; their dinner tables now frugal and sometimes empty from the necessity of circumstance; and the contents of their pockets translating into ever less, and less nutritious, food. It is a picture of people in the eye of a humanitarian storm.²⁰

The European Commission's Humanitarian Aid and Civil Protection program (ECHO) reported just nine months later that the Syrian conflict had triggered the largest humanitarian crisis since World War II, with an increasing number of Syrians in need of food and other assistance. Of these, 4.5 million were estimated to be in "hard to reach" areas and nearly half a million were in besieged cities.²¹

¹⁷ Carnegie Middle East Center, "Food insecurity in war-town Syria: From decades of self-sufficiency to food dependence," June 4, 2015, http://carnegieendowment.org/2015/06/04/food-insecurity-in-war-torn-syria-from-decades-of-self-sufficiency-to-food-dependence-pub-60320.

¹⁸ Francesca de Chatel cogently argues that decades of prior mismanagement of the agricultural sector as well as recent changes in policy that reduced fuel and fertilizer subsidies for farmers laid the backdrop for the devastating results of the 2007–10 drought. De Chatel, "The Role of Drought and Climate Change in the Syrian Uprising."

¹⁹ "UN: Food crisis compounds effect of war in Syria," *The New Arab*, July 23, 2015,

https://www.alaraby.co.uk/english/news/2015/7/23/un-food-crisis-compounds-effect-of-war-in-syria.

²⁰ World Food Programme, "Food Security Assessment Report: Syria," October 2015, http://reliefweb.int/sites/reliefweb.int/files/resources/Syria%20Food%20Security%20Assessment%20Report%202015.pdf.

²¹ European Commission Humanitarian Aid and Civil Protection, "ECHO Factsheet: Syria Crisis," September 2016, https://ec.europa.eu/echo/files/aid/countries/factsheets/syria_en.pdf.

Nearly 5 million Syrians have found refuge in Jordan, Lebanon, Turkey, and Iraq, where their presence has often overwhelmed available public services and opportunities for housing and employment are limited.²² In January 2016, the World Food Program was compelled, for lack of financing, to reduce assistance to refugee populations in Jordan and Lebanon. As many as 80 percent of Syrian refugees in Jordan were forced to cut their consumption of food.²³ In Lebanon, Syrian children reportedly missed out on school in order to take on low-paid work in agricultural fields.

In preparation for the London Conference on Supporting Syria and the Region, held in February 2016, the nongovernmental organization Concern Worldwide drew attention to what it perceived as substantial shortfalls in donors' contributions to various humanitarian programs, while also shining a spotlight on the need to support Syrians' capacities in agriculture.

There is a continued need for emergency food aid and this made up the largest proportion—around a third—of the Syria Response Plan in 2015. However, agriculture, upon which future food security in Syria will largely be predicated was the least represented sector within the Syria Response Plan 2015, making up just 0.5% of the total appeal funding. There is a risk that donor bias towards short-term modes of aid provision could jeopardise the need to build agricultural capacity to improve food security in the long term.²⁴

In 2015, FAO distributed "wheat and barley seeds, vegetable production kits, and live poultry. Animal feed and livestock vaccination campaigns, in turn, have kept remaining herds healthy while vulnerable families who have lost livestock benefited from distribution of sheep to rebuild their livelihoods."25 But in November 2016, the FAO reported that, in spite of its assistance, the 2015/16 harvest was the lowest ever-55 percent lower than the average before the war. Further, the FAO found "that after five years of conflict many farmers have lost the ability to cope. Rising prices and scarcity of essential inputs such as fertilizers and seeds mean they will have no other option than to abandon food production if they do not receive immediate support."26 It is difficult to know how effective this assistance has been or whether, in fact, it has had the unintended consequences of empowering certain warring groups at the expense of others.

Are the Sustainable Development Goals (SDGs) Feasible?

In light of the stories from these three countries and the complex challenges that other countries in conflict are facing, it is far from clear that agricultural supply approaches will be

²² "Quick Facts: What You Need to Know about the Syria Crisis," MercyCorps, October 13, 2016, https://www.mercycorps.org/articles/irag-jordan-lebanon-syria-turkey/quick-facts-what-you-need-know-about-

²³ World Food Programme, "Impact Review: Syria Crisis Regional Response," February 2016, http://documents.wfp.org/stellent/groups/public/documents/ep/wfp281959.pdf.

²⁴ Concern Worldwide, "Paying the Price: Why donors must take a new approach to the Syria crisis," October 6, 2016, http://www.concernusa.org/content/uploads/2016/01/Concern-Paying-the-Price-Syria-report-final.pdf.

 $^{^{25}}$ FAO, "Support for agriculture in Syria critical with massive food insecurity adding to suffering," February 4, 2016, http://www.fao.org/news/story/en/item/382181/icode/.

²⁶ FAO, "Syria Food Production at All-Time Low," November 15, 2016, http://www.fao.org/news/story/en/ item/452217/icode/.

adequate to the task of ending hunger and improving food security (SDG2) and promoting peaceful and inclusive societies for sustainable development, providing access to justice for all, and building effective, accountable and inclusive institutions at all levels (SDG 16).

Simply growing more food globally will not lead to increased food security in many conflict-affected countries as sustainable access, through either own-production or markets, will not be possible. Economic stresses created through conflict (displacement, losses of homes and productive assets, job loss) are likely to mean that millions of people will have insufficient access to income sources to buy adequate food.

International assistance in both humanitarian and development spheres will likely be insufficient to level the playing field, although it may prevent catastrophic outcomes in some cases.²⁷ Humanitarian assistance plays a role in meeting food needs even in a time of war, although the situation in both Afghanistan and Syria show that its limitations are painfully evident. In Syria, the security of humanitarian personnel involved in food delivery continues to be threatened, and the political commitments essential for safe passage of assistance have been elusive. Critical humanitarian interventions are often impeded, enabling aggressing parties to intentionally use food as a weapon of war, although it can also be the result of lawlessness, the destruction of infrastructure, and/or widespread violence.

The 2011 World Development Report on Conflict, Violence and Development summarizes in stark terms the outlook for countries experiencing conflict:

People in fragile and conflict-affected states are more than twice as likely to be undernourished as those in other developing countries, more than three times as likely to be unable to send their children to school, twice as likely to see their children die before age five, and more than twice as likely to lack clean water. On average, a country that experienced major violence over the period from 1981 to 2005 has a poverty rate 21 percentage points higher than a country that saw no violence. . . . The average cost of civil war is equivalent to more than 30 years of GDP growth for a medium-size developing country. Trade levels after major episodes of violence take 20 years to recover. In other words, a major episode of violence, unlike natural disasters or economic cycles, can wipe out an entire generation of economic progress. 28

It is difficult to see how many—if not the majority—of people in countries in the midst of violent conflict today will not be "left behind" as populations elsewhere move toward sustainable economic growth, inclusive and resilient agricultural development, and social progress in terms of education, health, justice, and rising wellbeing. Indeed, the World Bank's Fragility, Conflict and Violence program projects that "extreme poverty will increasingly be concentrated in these areas [of fragility, conflict, and violence] as the rest of the world makes progress, rising from 17

12 | Emmy Simmons

²⁷ Joanna Macrae argues that international assistance unaccompanied by diplomatic interventions and political solutions will be unsuccessful. See Joanna Macrae, "Aiding peace and war: UNHCR, returnees, reintegration, and the relief-development debate," Working Paper No. 14, Humanitarian Policy Group, Overseas Development Institute, December 1999; and Joanna Macrae, *Aiding Recovery? The Crisis of Aid in Chronic Emergencies* (London: Zed Books, 2001).

²⁸ World Bank, "World Development Report: Conflict, Security, and Development," 5–6, 2011, http://siteresources.worldbank.org/INTWDRS/Resources/WDR2011_Full_Text.pdf.

percent of the global total today to almost 50 percent by 2030 due to high population growth rates and weak economic development."29

The United States' Intelligence Community Assessment for 2015 also highlights the risks that food insecurity poses at a global scale both as a result and as a cause of political instability and conflict:

We judge that the overall risk of food insecurity in many countries of strategic importance to the United States will increase during the next 10 years because of production, transport, and market disruptions to local food availability, lower purchasing power, and counterproductive government policies. Demographic shifts and constraints on key inputs, such as land and water, will probably compound the risk. In some countries, declining food security will almost certainly contribute to social disruptions and political instability.30

New financing approaches are also needed to address the acute food insecurity caused by conflict. While peacekeeping forces are mobilized through the use of mandatory funding that member countries must provide to the United Nations, humanitarian assistance efforts rely entirely upon voluntary contributions. When the news media that help to boost charitable giving fade away, as in Sudan and Somalia, however, millions continue to experience severe food insecurity, internal displacement, and armed aggression and humanitarian organizations are hard-pressed to respond.

The UN Office for Coordination of Humanitarian Affairs (UNOCHA), the World Food Program, and FAO work together to develop "coordinated appeals" for humanitarian funding. In 2015, the appeal was the largest ever, but reported international responses covered only 55 percent of the request. 31 Implementing organizations have crafted responses to the significant budgetary gap, including developing approaches that increase the efficiency of funding (e.g., providing support in the form of cash rather than commodities where circumstances permit) and its effectiveness (e.g., through improved multiyear planning, especially in areas of protracted crisis). But the inability of assistance programs to meet the needs of conflict-affected populations, for example, has been cited as contributing to the flow of Syrian refugees to Europe.³²

Conflict-related food insecurity today is seriously testing the capacities of the international community to respond to both the ongoing challenges as well as to build the basis for recovery of agriculture and food security. Political and diplomatic engagement—beyond the

²⁹ World Bank, "Fragility, Conflict and Violence," September 21, 2016, http://www.worldbank.org/en/topic/ fragilityconflictviolence/overview.

³⁰ U.S. Office of the Director of National Intelligence, "Intelligence Community Assessment: Global Food Security," 2015, https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/Global_Food_Security_ICA.pdf. ³¹ Some observers note that persistent budgetary shortfalls provide perverse incentives to implementing organizations, leading them to exaggerate the threat in an effort to ensure at least minimal contributions to cover needs. Development Initiatives, "Global Humanitarian Assistance Report 2016," 2016,

http://www.globalhumanitarianassistance.org/wp-content/uploads/2016/07/GHA-report-2016-full-report.pdf. ³² Steven Erlanger and Kimiko De Freytas-Tamura, "U.N. Funding Shortfalls and Cuts in Refugee Aid Fuel Exodus to Europe," New York Times, September 19, 2016, http://www.nytimes.com/2015/09/20/world/un-funding-shortfallsand-cuts-in-refugee-aid-fuel-exodus-to-europe.html.

development focus of the SDGs—is essential for bringing combatants into peace processes and permitting a resumption of normal economic activities.			

02

Recovering from Conflict

Between 1.2 and 1.5 billion people are estimated to live in "fragile and conflict-affected" situations and states today. An estimated 65 million people are internally displaced within their own countries or refugees in other countries. This is an astonishing number; it exceeds the previous record set in World War II.

Populations in countries "recovering" from violent conflict often find themselves on new terrain once the peace accord has been signed or conflict has been brought to a close in some other way. A new—and fragile—"post-conflict" government has come into power and the economy and society have begun to respond to the altered environment. Populations are confronted with a welter of difficult challenges: lingering violence; limited access to justice; lack of effective, accountable, and inclusive public institutions; economic foundations that do not provide adequate employment, especially for youth; and constrained capacity to adapt to social, economic, and environmental shocks or disasters.^{2, 3} Households and communities that fled from violence may return to find others occupying their homes and lands. Assets destroyed may be unrecoverable and the wherewithal to restart economic activities scarce. Food insecurity is an integral part of the fragile and conflict-affected landscape and, often, a primary target for international assistance in the post-conflict state.

Of the 53 countries where the 2015 Global Hunger Index shows "serious, alarming, or extremely alarming" levels of undernutrition, only three (Benin, Botswana, and Namibia) have not been classified as "fragile and conflict-affected" in the last few years. The hunger status of eight fragile and conflict-affected countries could not be assessed for lack of data (Burundi, the Democratic Republic of Congo, Eritrea, Libya, Somalia, South Sudan, Sudan, and Syria), but

¹ This conservative estimate comes from the International Finance Corporation, "Creating Opportunity in Fragile and Conflict-Affected Countries," http://www.ifc.org/wps/wcm/connect/corp_ext_content/ifc_external_corporate_site/ifc+news/pressroom/creating-opportunity-in-fragile-and-conflict-affected-countries. The World Bank estimates the total at 2 billion as of September 21, 2016. The definition of "fragile and conflict-affected states" is intuitively apparent but varies by source. The World Bank, the Organization for Economic Cooperation and Development (OECD), and the Failed States Index each use somewhat different data and methods to identify fragile and conflict-affected states or areas. The g7+, a group of self-identified fragile states, have adopted a more operational definition. See g7+ Group, http://www.g7plus.org.

² These five dimensions of fragility lend themselves to comparative assessment, although there is not universal agreement on them. The Development Assistance Committee, "States of Fragility 2015," Organization for Economic Cooperation and Development, 2015, http://www.oecd.org/dac/governance-peace/conflictfragilityandresilience/docs/FINAL%20States%20of%20Fragility%20Highlights%20document.pdf.

³ John Norris, Casey Dunning, and Annie Malknecht, "Fragile Progress: The Record of the Millennium Development Goals in States Affected by Conflict, Fragility and Crisis," Center for American Progress and Save the Children, 22, June 2015, http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/FRAGILESTATES-REPORT_WEB.PDF.

⁴ Klaus Von Grebmer et al., "Global Hunger Index 2015," International Food Policy Research Institute, 2015, http://www.ifpri.org/publication/2015-global-hunger-index-armed-conflict-and-challenge-hunger.

there is little doubt that hunger and serious or alarming malnutrition are widespread in these countries. One-third of the world's 400 million "extreme poor" are estimated to be living in fragile and conflict-affected areas; the World Bank projects that this percentage could rise to nearly half by 2030.⁶

Governance for Food Security in a Post-Conflict State

While every conflict-ravaged country presents a unique history composed of differing political, economic, and social-cultural environments, there seems to be agreement that every post-conflict government faces five challenges: "establishing safety and security, strengthening constitutional government, reconstructing infrastructure and restoring services, stabilizing and [equitably] growing the economy, and strengthening justice and reconciliation organizations." 7

These functions align reasonably well with the five goals of peace- and state-building that were agreed upon in 2011 as part of the New Deal for Engagement in Fragile States (legitimate politics, security, justice, economic foundations, and revenues and services).⁸ The New Deal was adopted and championed by a self-identified group of fragile states, now known as the g7+, and remains a work in progress.⁹

In general, post-conflict governments struggle with the task of restoring governance with fewer human, institutional, and financial resources than are needed to provide affected populations the basic needs for survival: food, water, shelter, healthcare, and primary education. At the same time, they must undertake critical security tasks to build peace. These include disarming, demobilizing, and reintegrating fighting forces but also establishing the legitimacy of the central government while empowering community leaders to reweave the torn social fabric.

In some cases, international pledges of assistance in the immediate post-conflict period are so high that the new, fragile government is unable to absorb them. ¹⁰ International development organizations are often eager to launch, as quickly as possible, both humanitarian operations to ensure basic needs and development interventions that will support economic recovery. Pressure on international organizations to show quick results, however, can undermine the formation of capable local institutions essential for agricultural recovery, economic growth, and sustainable food security.

⁶ World Bank, "Fragility, Conflict and Violence," September 21, 2016, http://www.worldbank.org/en/topic/fragilityconflictviolence/overview.

⁷ UN Department of Economic and Social Affairs and UNDP, "The Challenges of Restoring Governance in Crisis and Post-Conflict Countries," The Global Forum on Reinventing Governments, June 26–29, 2007, https://publicadministration.un.org/publications/content/PDFs/E-Library%20Archives/2007%20The%20Challenges% 20of%20Restoring%20Governance%20in%20Crisis%20and%20Post-Conflict%20Countries.pdf.

 $^{^8}$ International Dialogue on Peacebuilding & Statebuilding, "The New Deal," https://www.pbsbdialogue.org/en/new-deal/about-new-deal/.

⁹ G7+ Group describes the membership and aims of this political group: http://www.g7plus.org.

¹⁰ A World Bank brief estimates that it takes post-conflict countries three years to build capacities sufficient to absorb externally provided resources. See Alastair J. McKechnie, "Building Capacity in Post-Conflict Countries," Capacity Enhancement Briefs no. 5, World Bank, March 2004, http://siteresources.worldbank.org/INTCDRC/Resources/CDBrief05.pdf.

Lessons of Experience

To address food security challenges effectively, post-conflict governments and their development partners must resolve issues that fall into five main categories:

- Governing access to productive resources, especially land and water
- Getting markets working
- Advancing rapid and sustained off-farm growth
- Responding to emerging food security risks and uncertainties
- Coordinating international donor support

Governing access to productive resources

Productive agricultural land is a critical economic resource for rural populations in low-income countries. Contested rights to land and associated resources (water, minerals) are a common source of conflict among various groups: farmers, herders, urban developers, and mining interests. When such conflicts erupt in or contribute to civil unrest and violence, rural households are often displaced from their farms and grazing lands, either forcibly evicted by warring parties or through voluntary departure to escape violence. Abandoned lands, however, are sometimes claimed by others and are, in some cases, used for economic production as the conflict goes on. While displaced households often stay away for long periods of time, resolution of conflict impels many of them to return home where they try to reclaim lost assets.

Post-conflict reclamation and redistribution of rights to productive resources, especially land, is a difficult process. 11 Who governs—the central government or the local political structures? Who has priority access—the current resident or the returnee? How are competing interests managed? Are systems for adjudicating competing interests fair? These are important questions. Peace-building efforts must, according to John Bruce, a well-known expert in land tenure, recognize that "competition over land, expressed through disputes, continues after peace and may threaten to regress into conflict. Land claims and grievances must be addressed promptly but with restraint and balance."12

The government of **Rwanda** has taken this advice seriously with progressive efforts to resolve the competing claims to agricultural land that have persisted for more than 20 years postconflict. 13 A high priority has been placed on enabling rural Rwandans to access very small plots of land to improve their livelihoods and food security through the production of crops and

¹¹ Jon Unruh and Rhodri Williams (eds), Land and Post-Conflict Peacebuilding (London: Routledge, 2013). ¹² John Bruce, "Return of land in post-conflict Rwanda: International standards, improvisation, and the role of international humanitarian organizations," in Unruh and Williams (eds.), Land and Post-Conflict Peacebuilding November 2013, http://environmentalpeacebuilding.org/assets/Documents/LibraryItem_000_Doc_153.pdf. ¹³ Ibid.

livestock. 14 Yet Bruce suggests that, today, "few would dispute that effective management of competition for land will be critical to the maintenance of peace" in Rwanda.

The return of internally displaced persons (IDPs) to areas in northern **Uganda** was largely led by NGO and community organizations. ¹⁵ Once the Lord's Resistance Army presence was eliminated, returnees—many of whom had been away for 20 years—found their land occupied by others. Traditional and statutory land administration structures did not work, women and orphans were not able to acquire land, and border challenges required dispute resolution. Moreover, many seeking to resettle expressed a mistrust of the government regarding land policy, a fear of state-supported land grabs, and a preference for individual ownership of land rather than community-based tenure, the latter fundamentally altering traditional concepts of property rights. 16 The Uganda Land Alliance was able to test and apply a methodology that resolved many issues and enabled people to regain access, control, and ownership of productive lands.

In Liberia, competition between local communities and international corporations was a source of contention. The Johnson Sirleaf government clearly embraced the problem of food insecurity as it took office in 2005 and prioritized "expanding agricultural production, productivity, and diversification and, by improving access to market, ensuring that the sector would be 'pro-poor." The task of promulgating effective and fair agricultural land policies moved to the forefront of politics, though, as external investors immediately approached the post-conflict government seeking large land concessions for production of oil palm and rubber and harvesting of timber. Foreign direct investment promised both income-earning exports and jobs, so the government tried to adopt a balanced approach: ensuring land access for rural Liberians while also stimulating rapid economic growth through exploitation of Liberia's relatively abundant natural resources (timber, oil palm, rubber). In the end, however, over 53 percent of the country's total area was covered by concessionary agreement with foreign investors by 2013, 18 few consultations were held with local communities, and resentment over the government's reallocation of land rights has reportedly grown.¹⁹

¹⁴ Arumugam Kathiresan, "Farm Land Use Consolidation in Rwanda; Assessment from the Perspectives of Agricultural Sector," Republic of Rwanda, June 29, 2012, http://www.minagri.gov.rw/fileadmin/user_upload/documents/ agridocs/Farm_Land_Use_Consolidation_in_Rwanda.pdf.

 $^{^{15}}$ Edmond M. Owor et al., "Re-establishing an asset base and protecting access to productive resources in postconflict areas of northern Uganda" (paper presented at 2016 World Bank Conference on Land and Poverty, March 14-18, 2016), http://www.gltn.net/index.php/publications/publications/other-documents/send/3-otherdocuments/2307-19-re-establishing-an-asset-base-and-protecting-access-to-productive-resources-in-postconflict-areas-of-northern-uganda-paper.

¹⁶ Margaret Rugadya, "Analysis of post-conflict land policy and land administration: A survey of IDP return and resettlement issues and lesson: Acholi and Lango regions," Northern Uganda Land Study, World Bank Northern Uganda Peace, Recovery and Development Plan, and the Draft National Land Policy, February 2008, http://www.landcoalition.org/sites/default/files/documents/resources/northern_uganda_land_study_acholi_lango.p

¹⁷ Ellen Johnson Sirleaf, "The Role of Agriculture in Post-Conflict Recovery—the Case of Liberia," AllAfrica, May 20, 2010, http://allafrica.com/stories/201005240880.html.

¹⁸ Agnieszka Paczynska, "Liberia rising? Foreign direct investment, persistent inequalities and political tensions," Peacebuilding, 2016, https://www.stimson.org/sites/default/files/file-attachments/Paczynska%202016%5B3%5D.pdf. ¹⁹ Ibid., 16.

In **Nepal**, post-conflict access to land is intertwined with issues of ethnicity and security. The civil conflict officially ended in 2006, but "approximately 50,000 people remained internally displaced by armed conflict as of February 2015. . . . Many remain in the [lowland] *terai*, mainly due to a continuing sense of insecurity and unresolved property issues following the appropriation and redistribution of land in Maoist strongholds in the Western and Far Western hills." Popal's progress in developing a new constitution to institutionalize the peace agreements has also been slowed by issues related to land ownership. Realization of the proposed "ethnic federation" of the country has been difficult as, due to internal migration, few areas today are dominated by a single ethnic group. Page 19.

A policy of ethnic federalism was also implemented in **Ethiopia** in the 1990s. The federal approach ensured that ethnicity was associated with control of land and water resources and a decentralized governance structure. However, frequent inter-ethnic conflicts have erupted where borders have not been clearly delineated or when populations have sought to access resources outside of their own territory. Pastoral populations, for example, have been repeatedly drawn into violent conflict over access to pasture and water resources and neither regional nor central government institutions have been able to satisfactorily resolve these disputes. ²² Increasingly, issues reflecting aspirations to political power have become entwined with questions of access to resources and livelihoods not only in pastoralist regions, but across Ethiopia.

Getting markets working

Conflict disrupts markets. Destruction of roads and bridges breaks supply chains, from farm to market and from urban market or port of import to rural areas. Commodities in transit are looted or stolen. Market-based opportunities to earn incomes from both farm and off-farm work are reduced or destroyed. Consumers' purchasing power is reduced. Food aid shipments provide only sporadic supplies and deliveries are often threatened by armed groups or completely impeded by warring parties.

Making markets work in post-conflict situations is generally a high priority but it is not easy.²³ Food aid distributions are likely to be needed to cover food needs between the end of conflict and realization of a durable peace. Care must be taken to avoid providing disincentives to those farmers and marketing agents who will be responsible for getting local markets working again. Further, is there adequate infrastructure for agriculture and food markets to operate within the

²⁰ Paul Clewett, "Redefining Nepal: Internal Migration in a Post-Conflict, Post-Disaster Society," Migration Policy Institute, June 18, 2015, http://www.migrationpolicy.org/article/redefining-nepal-internal-migration-post-conflict-post-disaster-society.

²¹ Ibid.

²² Trine Lober and Peter Worm, "Pastoral Conflicts and Ethnic Federalism in Ethiopia's Lowlands: Investigating Complex Power Relations and Emerging Ethnic Identities," Roskilde University, ENSPACE, Project Report, May 18, 2015, http://rudar.ruc.dk/bitstream/1800/23210/1/Løber_Worm_2015_Pastoral-conflicts-ethnic-federalism-Ethiopian-lowlands_FINAL.pdf.

²³ Catherine Longley et al., "Rural Recovery in Fragile States: Agricultural support in countries emerging from conflict," *Natural Resource Perspectives 105*, Overseas Development Institute, 2007, https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/10.pdf.

country? Are financial resources and services available to enable participants in domestic supply chains to function efficiently?

Post-conflict reconstruction priorities invariably include rebuilding roads, bridges, water systems, and energy infrastructure. Infrastructure rehabilitation not only expands access to markets but also creates jobs that will absorb demilitarized and displaced populations. By prioritizing construction or reconstruction of agricultural infrastructure in rural and more marginalized communities, some conflict-recovery projects deliberately emphasize poverty reduction and food security. Phey seek to rebuild the foundations for market-oriented agricultural growth, focusing not only on physical infrastructure but also on the development of the private sector through increasing access to credit to small enterprises, using [agricultural] value chain development to increase benefits to providers of labor, and encouraging foreign direct investment.

Public works programs provide tangible evidence of government commitments to rebuilding the economy and society as well as enabling the population to secure its own food needs through reestablished markets. Collier (2007) notes that while energy infrastructure is key to bringing private investors into a post-conflict economy, investing in rural roads is crucial to link the rural economy to the urban market in the recovery stage. World Bank evaluations that looked at **Uganda** estimated that the rate of return on rural road investments was an impressive 40 percent.²⁶

Public works programs in post-conflict countries are typically financed with official development assistance, but Schwartz et al. (2005) argue that there are ways that private investment can play an important role in the post-conflict reconstruction of infrastructure. Welcoming private-sector investment to provide infrastructure services—even when the providers are small and expensive—can be a way of supplying services that are needed for the economy to operate.

Yet others point out the pitfalls of hastily planned or poorly executed efforts to promote the development of market systems and infrastructure. They find that many projects "tend to be localised, fragmented, and poorly coordinated, and often focus on either input or output markets, with little integration between the two. In general, market-based approaches remain largely as wishes expressed in policy documents rather than programming reality. . . . There is a need for caution about promoting market development without an adequate understanding of the political and economic relations of product and inputs markets, and the social relations through which they are structured in post-conflict situations." 27

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²⁴ Laura Ralston, "Job Creation in Fragile and Conflict-Affected Situations," Policy Research Working Paper No. 7078, World Bank Group, October 2014, http://documents.worldbank.org/curated/en/912891468182328727/pdf/WPS7078.pdf.

²⁵ Ibid. Also see Gun Eriksson Skoog, "Inclusive Development of Agricultural Markets in Post-Conflict Countries, with a Focus on Liberia," Nordiska Afrikainstitutet, 2012, http://www.nai.uu.se/news/articles/2012/11/19/103806/ PreliminaryResearchIdeasInclusiveAgriculturalMarkets.pdf.

²⁶ Stephen Jones and Simon Howarth, "Supporting Infrastructure Development in Fragile and Conflict-Affected States: Learning from Experience," Oxford Policy Management, August 2012, 16, http://www.opml.co.uk/sites/default/files/FCAS%20infrastructure%20final%20report_1.pdf.

²⁷ Longley et al., "Rural Recovery in Fragile States," 3.

The financial challenges that many post-conflict governments face in reestablishing markets and the infrastructure they need to operate efficiently can be staggering. Significant investments were made to develop market-supporting infrastructure in South Sudan when the interim Comprehensive Peace Agreement (CPA) was signed in 2005. Nonetheless, the African Infrastructure Country Diagnostic team found, in 2010, that

the state of South Sudan's infrastructure is in complete disarray, making it difficult to pin down the single most pressing infrastructure challenge. Existing infrastructure problems (whether related to assets, capacity, or institutions) are daunting; it is simply not realistic to expect—even in the most optimistic scenario—that the south will catch up with neighboring countries, even those in a similar income bracket, in a period of 10 years or even longer. Estimates based on very modest illustrative targets indicate spending needs on the order of \$1.4 billion per year over a decade—more than three times as much as the country has been spending in recent years, even under the CPA.²⁸

Advancing rapid and sustained growth

While the most direct route to increasing food security in a post-conflict environment might appear to be in promoting resumption or expansion of activity in on-farm production, agricultural investments take time to generate both output and income even when issues of access to land and markets have begun to be resolved. Nonfarm employment opportunities are important to jumpstarting economic growth, even in rural areas. Two key issues must be addressed: access to finance and management of business risks.

Relatively low-risk microfinance approaches are often proposed as the most appropriate startup strategy to rebuilding financial capacities. Microfinance is familiar to many NGOs and bilateral donors and promotes reconnection of social ties among community members. However, financial services on a somewhat larger scale are also likely to be needed. They can be met either through public-sector provisions of concessional financing for promising enterprises or, more sustainably, with the establishment of private sector institutions.²⁹ USAID's Guide to Economic Growth in Post-Conflict Countries makes clear that formal banking institutions are essential not only for extending credit but also for ensuring that households can safely protect their savings and that market actors have access to efficient, accessible means to pay for goods and services.³⁰

²⁸ Rupa Ranganathan and Cecilia M. Briceno-Garmendia, "South Sudan's Infrastructure: A Continental Perspective," World Bank: African Infrastructure Country Diagnostic (AICD), Country Report, June 2011, 1, http://www.infrastructureafrica.org/system/files/library/2012/02/CR%20South%20Sudan.pdf. See also Clesensio Tizikara and George Leju, "Post-Conflict Development of Agriculture in South Sudan: Perspective on Approaches to Capacity Strengthening," Ministry of Agriculture, South Sudan, http://www.erails.net/images/fara/secretariat/kigalimovement/file/Kigali%20Movement/South%20Sudan.pdf.

²⁹ This somewhat dated article emphasizes the difficulty of this institutional development in post-conflict settings. Geetha Nagarajan, "Developing Financial Institutions in Conflict Affected Countries: Emerging Issues, First Lessons Learnt and Challenges Ahead," International Labor Office, September 1997, http://www.ilo.int/wcmsp5/ groups/public/---ed_emp/---emp_ent/---ifp_crisis/documents/publication/wcms_116728.pdf. ³⁰ USAID, "A Guide to Economic Growth in Post-Conflict Countries," Office of Economic Growth, Bureau for Economic Growth, Agriculture, and Trade, January 2009, 73, http://pdf.usaid.gov/pdf_docs/Pnado408.pdf.

Foreign investors can overcome the financial constraints in the post-conflict economy by tapping global financial market capacities and creating jobs at a larger scale. Attracting foreign private investors to a country in conflict-recovery is often a joint effort of the national government and external funders, as business risks must be recognized and shared so that peacetime employment can be created. Fragile and post-conflict countries with extractive industries (Angola, Nigeria, Iraq, Democratic Republic of the Congo, Egypt, and Sudan) have continued to attract foreign direct investment in spite of political risks.

The experiences of post-conflict governments in **Mozambique** and **Croatia** highlight a positive pathway toward economic recovery. "Post-conflict countries should initially aim at establishing the necessary preconditions, such as restoration of macroeconomic stability and basic foreign investment laws. [To attract] foreign direct investment,[...] measures in the form of investment incentives and privatization are a useful way to offset the risks facing foreign investors in post-conflict environments." Both countries made public policy commitments to building market-based economies through privatization of state-owned resources immediately after the conflict. Passage of legislation provided a legal and regulatory environment attractive to domestic and foreign private investors and attracted the financial and technical support of multilateral and bilateral institutions. Agriculture was an early focus for foreign investors in **Mozambique** (with significant allocations of land to foreign companies), although investments in mineral resources and energy pulled strongly ahead by 2004–2007.

However, there is a cautionary tale embedded in these stories of success. The subsequent growth in both countries did not correct the regional and ethnic imbalances that had, to some extent, propelled the civil wars. Analysts warn of the potential for these inequalities to trigger reignition of conflict. Foreign direct investments post-conflict tend to focus on major cities with better markets and infrastructure, despite attempts to incentivize work in more remote areas. This imbalance can create a deeper divide and exacerbate regional inequality.³⁴

Explicit strategies regarding "wealth sharing" are required to shape economic growth trajectories in ways that will maintain future stability and peace. Governments must ensure that all parties believe they have equitable access to resources and opportunities post-conflict and also the confidence that government is committed to this vision. As one author puts it, there can be no return to the prewar status quo, a condition that is likely to have contributed to the onset of conflict and violence in the first place. Another comment:

³¹ UNCTAD, "Best Practices in Investment for Development: How Post-Conflict Countries Can Attract and Benefit from FDI: Lessons from Croatia and Mozambique," Investment Advisory Series B, Number 3, UN, 2009, 18, http://unctad.org/en/Docs/diaepcb200915_en.pdf.

³² Ibid., chapter 3.

³³ The largest and most controversial has been the ProSAVANA investment in the Nacala region. For a recent perspective, see Alex Shankland and Euclides Goncalves, "Imagining Agricultural Development in South-South Cooperation: The Contestation and Transformation of ProSAVANA," *World Development* 81 (2016): 35–46.

³⁴ Ibid., 108.

³⁵ Paivi Lujala and Siri Aas Rustad (eds.), *High-Value Natural Resources and Post-Conflict Peacebuilding* (New York: Routledge, 2012).

³⁶ John F. E. Ohiorhenuan, "Post-Conflict Recovery: Approaches, Policies and Partnerships," Centre for Research on Peace and Development, CRPD Working Paper No. 4, December 2011, https://soc.kuleuven.be/crpd/files/working-papers/wp04.pdf.

It is not about simply building back, but about building back differently and better. As such, economic recovery [... must be] essentially transformative, requiring a mix of far-reaching economic, institutional, legal and policy reforms that allow war-torn countries to re-establish the foundations for self-sustaining development.³⁷

Rwanda chose to emphasize new investments in modern telecommunications (ICT) as a way of transforming the country to be more competitive in a global economy. It simultaneously focused on transforming the traditional agricultural sector from its largely subsistence orientation to one focused on commercialization.³⁸ Progress has been made in accomplishing both goals through a state-led strategy for implementation of multiple plans, with major investments in land and water development supporting agricultural intensification and increased productivity.39

Ethiopia has arguably been more successful than most postwar economies in using agricultural development as the linchpin of its overall growth policies. The "agriculture development-led industrialization" strategy on the late 1990s and subsequent agricultural commercialization strategies laid out in "Growth and Transformation Plans" have led to double-digit growth in the economy as a whole. Between 1995 and 2011 the incidence of extreme poverty-most of it in rural areas—dropped by half.

However, Ethiopia's experience also illustrates the magnitude of the challenge of post-conflict recovery. Even with strong government leadership, it has taken more than two decades to see measurable transformation in the agricultural economy through diversification of exports (e.g., more horticultural commodities), improvements in on-farm productivity, and the emergence of international industrial firms adding value to agricultural inputs (e.g., beer, shoes) on a significant scale.40

Official development assistance, support from NGOs and philanthropic funds, private investments, and loans from Asian governments have all been harnessed in support of Ethiopia's agricultural agenda. While the international image of Ethiopia as a "development star" achieving strong economic growth is widely recognized, issues of insufficient democratic participation of the population, excessive state control of business development opportunities, and continued border conflicts with Eritrea have raised questions of sustainability.

Perhaps the most telling indicators of progress in achieving inclusive economic growth are in the area of job creation, especially jobs in the formal sector. The slow generation of private-

³⁷ UN Development Report, "Post-Conflict Economic Recovery: Enabling Local Ingenuity," Crisis Prevention and Recovery Report, 2008, 5, http://www.undp.org/content/dam/undp/library/crisis%20prevention/undp-cpr-postconflict-economic-recovery-enable-local-ingenuity-report-2008.pdf.

³⁸ infoDev and the World Bank, "Towards Transformation: ICT in Post-Conflict Rwanda," January 2013, https://www.infodev.org/infodev-files/resource/InfodevDocuments_1195.pdf.

³⁹ F. Alinda and P. Abbott, "Agricultural Policy and Institutional Framework for Transformation of Agriculture, Economic Development and Poverty Reduction in Rwanda," Institute of Policy Analysis and Research Rwanda, April 2012, http://dspace.africaportal.org/jspui/bitstream/123456789/33848/3/Rwanda's_Agricultural_Policy_ Observatory[1].pdf?1.

⁴⁰ Deloitte, "Ethiopia: A growth miracle," July 2014, http://www2.deloitte.com/content/dam/Deloitte/za/Documents/ strategy/za_ethiopia_growth_miracle_july2014.pdf.

sector jobs has been identified as a critical issue, especially in Africa where youth (mostly now self-employed or working on family farms) are a growing share of the population.⁴¹

Stewart's review of job creation in post-conflict zones finds that only in post-conflict **Nepal** were employment opportunities specifically targeted to marginalized populations in a way that promoted peace. Experiences in Sierra Leone, Uganda, Kosovo, and Bosnia and Herzogovina, she finds, were less successful as job-creation efforts because they focused too much on improving the supply of skilled workers and not enough on fostering demand for their work.⁴²

The international labor market appears to be providing an attractive alternative to some populations in fragile and conflict-affected situations. The growing numbers of international migrants—officially, 244 million in 2015, but likely many times that number where borders are porous—are an indicator of insufficient employment opportunities in migrants' home countries as well as the need for labor in receiving countries. The OECD reports that remittances in 2012 were the most important source of external finance for fragile countries as a group, although just three countries with large diaspora (Nigeria, Bangladesh, and Egypt) account for more than half of all such remittances. Remittances from migrant workers have become an important source of foreign exchange for their countries of origin while ensuring improved food security for the families left behind. Whether this labor migration is a useful food security safety valve for post-conflict countries or an indicator of the failure of national economic growth strategies is a subject of intense debate.

Responding to emerging food security risks and uncertainties

Ending the violence and disruption of conflict and initial success in pursuit of justice, peace, and inclusive economic growth does not eliminate potential risks and uncertainties for food security at either the household, national, or regional level.

Extreme weather or natural disasters are the most likely sources of risk and uncertainty for food security going forward. Weather conditions inevitably drive volatility in agricultural productivity. Researchers have shown that climate change already poses increased long-term risks for agricultural production, especially in sub-Saharan Africa, although there are many

⁴¹ John Page, "For Africa's Youth, Jobs Are Job One," Africa Growth Initiative, Brookings Institution, 2013, https://www.brookings.edu/wp-content/uploads/2016/06/Foresight_Page_2013.pdf.

⁴² Frances Stewart, "Employment in Conflict and Post-Conflict Situations," Think Piece: 2015 UNDP Human Development Report Office, 2015, http://hdr.undp.org/sites/default/files/stewart_hdr_2015_final.pdf.

⁴³ UN Department of Economic and Social Affairs, Population Division "Trends in international migration, 2015," Population Facts, No 2015/4, December 2015, http://www.un.org/en/development/desa/population/migration/publications/populationfacts/docs/MigrationPopFacts20154.pdf.

⁴⁴ The Development Assistance Committee, "States of Fragility 2015," Organization for Economic Cooperation and Development, 2015, 57, http://www.oecd.org/dac/governance-peace/conflictfragilityandresilience/docs/FINAL%20States%20of%20Fragility%20Highlights%20document.pdf.

⁴⁵ Dilip Ratha, "The Impact of Remittances on Economic Growth and Poverty Reduction," Migration Policy Institute Policy Brief, No. 8, September 2013. See also Regmi, Madhav et al., "Migration and Remittance and Their Impacts on Food Security in Nepal" (paper presented at Southern Agricultural Economics Association Meeting, Dallas, Texas, February 1–4, 2014).

⁴⁶ Kathleen Newland, "Migration as a Factor in Development and Poverty Reduction," Migration Policy Institute, June 1, 2003, http://www.migrationpolicy.org/article/migration-factor-development-and-poverty-reduction.

uncertainties regarding impacts at a local level.⁴⁷ Rural households will experience significant impacts on their nutrition and livelihoods. Were there to be a concurrent failure of production in the world's breadbaskets, there could be catastrophic impacts on global agricultural trade, food availability, and the food security of millions.⁴⁸

Climate-smart technologies are being developed in both the public and private sectors to prevent declines in crop yields. Already in the pipeline are crop varieties that use water more efficiently and withstand drought and flooding and agronomic techniques that increase soil carbon and reduce use of synthetic fertilizers. Other innovations aim to mitigate the contributions that agriculture systems make to the greenhouse gas emissions driving climate change through changed approaches to managing irrigated lands and livestock. Reduced food waste would also mean reduced energy use and greenhouse gas emissions. "Sustainable intensification" strategies are being developed to build farming systems that are both more productive and more ecologically resilient.

A recent publication by FAO and the New Partnership for Africa Development (NEPAD) provides a useful overview of the concepts, lessons learned, and guidelines that would enable governments to address agriculture and food security risks at various scales.⁴⁹ The International Fund for Agricultural Development has also partnered with NEPAD in establishing the Platform for Agricultural Risk Management in order to develop capacities for risk assessment.⁵⁰

The one set of actions on which there seems to be broad agreement is that all nations need to establish social protection institutions that can be scaled up or back when households or individuals are vulnerable to or threatened by serious food insecurity.⁵¹ Effective social protection programs in some countries have helped to offset negative health and nutritional impacts experienced as a result of job and income loss or natural disasters. Ethiopia's Productive Safety Net Program (PSNP), for example, has recently been credited with demonstrating how political leadership can be effective in averting famine conditions that could have emerged with an extensive drought affecting 20 percent of the population.⁵²

To date, however, few fragile and conflict-affected states have taken a systematic approach to providing social protection. Instead, they are "ad hoc and opportunistic." Being more systematic would require national leaders—and their humanitarian and development partners—to plan for mobilizing sufficient domestic revenues, building organizational capacities, and being prepared to guide international assistance to provide needed social safety net coverage,

⁴⁷ Bruce Campbell et al., "Reducing Risks to Food Security from Climate Change," *Global Food Security*, June 13, 2016, http://www.sciencedirect.com/science/article/pii/S2211912415300262.

⁴⁸ Lloyd's of London, *Food System Shock: Emerging Risk Report*, 2015, https://www.lloyds.com/~/media/files/news% 20and%20insight/risk%20insight/2015/food%20system%20shock/food%20system%20shock_june%202015.pdf.

⁴⁹ Mulat Demeke et al., "Agriculture and Food Insecurity Risk Management in Africa: Concepts, lessons learned, and review guidelines," Food and Agriculture Organization, 2016, http://www.fao.org/3/a-i5936e.pdf.

⁵⁰ Platform for Agricultural Risk Management, "Risk Assessment," http://p4arm.org/category/risk-assessment/.

⁵¹ Mirey Ovadiya et al., "Social Protection in Fragile and Conflict-Affected Countries: Trends and Challenges," Discussion Paper No. 1502, Social Protection and Labor, World Bank, April 2015, http://documents.worldbank.org/curated/en/951221468185039094/pdf/96378-NWP-P148221-Box391433B-PUBLIC-no1502.pdf.

⁵² Alex De Waal, "Is the Era of Great Famines Over?," *New York Times*, May 8, 2016, http://www.nytimes.com/2016/05/09/opinion/is-the-era-of-great-famines-over.html?_r=0.

⁵³ ReliefWeb, "Haiti: Food Security Snapshot," March 7, 2016, http://reliefweb.int/report/haiti/ha-ti-food-security-snapshot-march-2016.

especially where drought, flooding, or other natural disasters have expanded the need for food and nutrition assistance and income support for rural populations.

Coordinating international donor support

Fragmentation of assistance and donor-driven initiatives often bypass nascent government institutions in post-conflict situations. New and fragile, poorly staffed public institutions are often weak, with little capacity to act. However, parallel, externally led interventions have a record of undermining the emergence of responsible, accountable authorities at national and local levels. Financial oversight is often lax and corruption is an important risk. Donated seeds, fertilizers, or agricultural credit, for example, may not find their way to those best prepared to use them.

The key question: Can the differing goals and capacities of international organizations, bilateral donors, NGOs, and members of the diaspora be accommodated by governance structures? Experience seems to say "no."

While recognizing that building robust local governance systems will take time, each source of external support is eager to deliver inputs and services to the conflict-affected populations and to show "results" that will sustain the future flow of funds. In spite of the potential advantages of pooled funding managed collaboratively, most assistance to fragile and conflict-affected countries since 2000 has been provided on a bilateral basis, led by contributions from the United States, the European Union, and France.

The coordinating mechanism that has shown some promise is the establishment of multiyear, multidonor trust funds (MDTFs). These trust funds can foster greater information sharing and coordination among external actors and encourage a more coordinated and coherent policy dialogue with a post-conflict government. MDTFs can be focused on a specific sector (like infrastructure in Liberia) or more comprehensive and open-ended (as in South Sudan, Iraq, and Afghanistan). Both the World Bank and the United Nations provide trust fund management services.

A review of 19 post-crisis MDTFs provides a number of salient observations and lessons learned regarding the use of this mechanism.⁵⁴ Perhaps most important for donors, "MDTFs are instruments for improving resource efficiency and effectiveness by reducing transaction costs, and in particular by managing the high risk levels inherent in post-crisis environments."⁵⁵ For recipient nations, international support brings both funding and legitimacy to the peace process, but can "create political risk" when the MDTF does not meet the population's expectations.⁵⁶

Scanteam/Norway, "Review of Post-Crisis Multi-Donor Trust Funds: Final Report," World Bank, February 2007, http://siteresources.worldbank.org/INTLICUS/Resources/388758-1094226297907/MDTF_FinalReport.pdf.
 Ibid 29

⁵⁶ Barakat elucidates the "failed promise" of MDTFs, asserting that "[c]omplicated implementation arrangements, donor-dominated coordination and oversight bodies, short timeframes and high expectations pertaining to disbursement have subsumed trust funds to donors' pre-existing modes of operating and made them contravene state building objectives and weaken aid effectiveness." S. Barakat, "The Failed Promise of Multi-Donor Trust Funds: Aid Financing as an Impediment to Effective State-Building in Post-Conflict Contexts," *Policy Studies* 30, no. 2 (February 10, 2007): 107–126.

Overall, however, the reviewers recommend continued—perhaps even expanded—use of MDTFs as they have a comparative advantage in rebuilding core public administration functions and funding capacity development in the public sector. They conclude that "if well-managed, MDTFs can contribute to reducing the chance of a volatile situation reverting to open conflict, this gives a high pay-off potential that could more than justify the costs."57 According to data from the World Bank's Independent Evaluation Group (IEG), MDTFs provided over \$7.5 billion in funding to fragile and conflict-affected countries over the period from 2001–2011, more than 70 percent of it to Afghanistan. Set against the more than \$413 billion in official development assistance committed to these countries over the same period, it is clear that pooled funding approaches have relatively little traction and bilateral program support predominates.⁵⁸

Leaders of some fragile and conflict-affected states are pushing back. Giving themselves the breezy tagline "Goodbye Conflict, Welcome Development!," a group of presidents of selfidentified fragile and conflict-affected countries propose to take greater ownership of their development agendas.⁵⁹ They embrace the New Deal for Engagement in Fragile States and an active International Dialogue on Peacebuilding and Statebuilding as a platform for more effective coordination of external aid and more proactive leadership by recipient countries.⁶⁰

A 2016 review of New Deal implementation to date is guardedly optimistic about its future and the success of g7+ collaboration, but findings indicate that the principles of the New Dealknown by the acronyms TRUST and FOCUS—are not yet being translated into action.⁶¹ The review points out that international donors must do much more to hold up their end of the bargain, especially given agreed commitments to SDG 16: promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable and inclusive institutions at all levels. 62 Development partners are being challenged to operate rapidly and flexibly, simultaneously providing both humanitarian assistance and support for economic, social, and political development. This is a tall order. In the next chapter, however, the experience of the L'Aquila Food Security Initiative hints at a way forward: highlevel political commitments, backed by rising levels of bilateral and multilateral funding, and multisectoral approaches that engage national public, private sector, and civil society leaders as robustly as possible.

⁵⁷ Scanteam/Norway, "Review of Post-Crisis Multi-Donor Trust Funds."

⁵⁸ Development Assistance Committee, "States of Fragility 2015," Organization for Economic Cooperation and Development, 2015, http://www.oecd.org/dac/governance-peace/conflictfragilityandresilience/docs/ FINAL%20States%20of%20Fragility%20Highlights%20document.pdf.

⁵⁹ Today, this group includes: Afghanistan, the Democratic Republic of Congo, Haiti, Liberia, South Sudan, Sierra Leone, East Timor, Burundi, Central African Republic, Chad, Comoros, Côte d'Ivoire, Guinea, Guinea-Bissau, Papua New Guinea, Sao Tome and Principe, Solomon Islands, Somalia, Togo, and Yemen. See G7+ Group, "Member Countries," http://www.g7plus.org/en/who-were-are/member-countries.

⁶⁰ International Dialogue on Peacebuilding & Statebuilding, http://www.pbsbdialogue.org/en/.

⁶¹ Sarah Hearn "Independent Review of the New Deal for Engagement in Fragile States," Center on International Cooperation, New York University, 2015, http://www.g7plus.org/sites/default/files/resources/Independent-Review-Full-Review.pdf.

⁶² Ibid., 50.

03

Quelling the Perfect Storm of 2007/08

The Immediate International Response

The L'Aquila Food Security Initiative, launched in 2009, provided an immediate response to the heightened political tensions associated with the unanticipated food price spikes of 2007/08 and the widespread food insecurity they caused. The countries comprising the G-8 and the G-20 committed to mobilizing more than \$20 billion over three years to support comprehensive changes in agricultural production systems, governance and research institutions, and markets. These development assistance resources were focused largely in countries where governments expressed commitments—"country ownership"—to the goals of eliminating hunger and increasing food security. A High Level Task Force on Food and Nutrition Security, convened by the secretary general of the United Nations in 2008, enabled UN institutions to provide coordinated input into efforts that unfolded following the L'Aquila accord.

The L'Aquila Initiative reversed declines in official development assistance for agriculture and food security and gave rise to new bilateral and multilateral commitments of resources to food security programs.² Such programs included the U.S. government's Feed the Future initiative, the World Bank's Global Food Crisis Response Program and the Bank-managed multi-stakeholder Global Agriculture and Food Security Program (GAFSP), as well as many projects led by the International Fund for Agricultural Development (IFAD), the UN FAO, and scores of national and international NGOs.

A complementary initiative, the Scaling Up Nutrition (SUN) movement, also took root in 2009. SUN joined UN institutions, civil society, national governments, and business leaders in a common effort to respond to a sobering report on the long-term impacts of maternal and child under-nutrition.³ The January 2008 issue of the highly respected publication *The Lancet* painted a compelling picture of the human, societal, and economic costs of malnutrition. Infants malnourished throughout their first 1,000 days of life (that is, from conception to age two) were found to exhibit compromised cognitive development and diminished physical abilities that would affect them throughout their lives. This sparked new interest in human nutrition.⁴ The concept of nutrition security emerged as distinct from but closely related to that

¹ L'Aquila Food Security Initiative, "2012 Report," L'Aquila Food Summit, 2012, http://www.state.gov/documents/organization/202922.pdf.

² While nutrition is clearly implicit in the 1996 FAO definition of food security, nutrition security makes this outcome more explicit. See here for a good list of food and nutrition security initiatives: Farming First, "Food & Nutrition Security Initiatives," http://www.farmingfirst.org/food-nutrition-security-initiatives/.

³ Robert Black et al., "Maternal and child undernutrition: global and regional exposures and health consequences," *The Lancet*, January 2008.

⁴ The Lancet has followed up with additional series focused on nutrition interventions. See the 2013 Maternal and Child Nutrition Series, *The Lancet*, June 6, 2013, http://www.thelancet.com/series/maternal-and-child-nutrition, and

of food security.⁵ Several L'Aquila Initiative-related programs, including the U.S. Feed the Future initiative and the European Union's program supporting the New Alliance for Food Security and Nutrition, included "improved nutritional status, especially of women and children" as a key objective.⁶

Lessons Learned

Inclusiveness. The development literature today brims with stories of the positive outcomes that can be achieved by promoting "the business of agriculture" by including resource-poor farmers: one acre or one cow or one value chain at a time. But many observers are finding that, in reality, program participants are "generally those who are relatively well-endowed with productive assets, in particular those with access to suitable land, access to water, finance and some level of organization." Wiggins and Keats (2013) review 30 contemporary cases and similarly find that most market-linkage programs do not include the poor and most vulnerable. An analysis by the African Development Bank underscores the imperative of inclusive growth, but concludes that the focus that many post—L'Aquila programs placed on inclusiveness in their agricultural programs has not yet improved the productivity and incomes of many smallholder farmers or reduced income inequality and rural food insecurity enough to put the goal of "zero hunger" within reach.

To both include smallholders and get impacts at scale, additional initiatives may be needed to improve the enabling investment climate, to provide rural public goods (roads, electricity), and to engage key commercial players in value chains in ways that signal political and, perhaps, financial support. The World Bank Group's Enabling the Business of Agriculture report (2016) underscores the importance of government actions needed to ensure inclusion of smallholders and female farmers as well as large investors. Appropriate laws and regulations affecting availability of modern inputs and access to markets top their list of required public interventions. ¹²

the 2013 Non-Communicable Diseases Series, *The Lancet*, February 12, 2013, http://www.thelancet.com/series/non-communicable-diseases, as well as the 2016 Commissions on Adolescent Health and Wellbeing, *The Lancet*, May 11, 2016, http://www.thelancet.com/commissions/adolescent-health-and-wellbeing.

⁵ Materne Maetz, "Food Security—definitions and drivers," December 2013, http://www.hungerexplained.org/ Hungerexplained/Food_security_files/Food%20security%20-%20definitions%20and%20drivers.pdf.

⁶ USAID, "Feed the Future Goal: Sustainably Reduce Global Poverty and Hunger," 2013, https://feedthefuture.gov/sites/default/files/resource/files/ftf_results_framework_2013.pdf.

⁷ See One Acre Fund, https://www.oneacrefund.org, and Heifer International, https://www.heifer.org/ending-hunger/index.html, for examples.

⁸ Emmanuel Tumusiime, "How inclusive and sustainable is Feed the Future?," Oxfam America, July 18, 2013, http://politicsofpoverty.oxfamamerica.org/2013/07/how-inclusive-and-sustainable-is-feed-the-future/.

⁹ Steve Wiggins and Sharada Keats, "Leaping and Learning: Linking Smallholders to Markets," Overseas Development Institute and Agriculture for Impact, May 2013, https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8401.pdf.

¹⁰ Benedict S. Kanu et al., "Inclusive Growth: An Imperative for African Agriculture," African Development Bank, http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Inclusive_Growth_-_An_imperative_for_African_Agriculture.pdf.
¹¹ Ibid.

¹² World Bank, "Enabling the Business of Agriculture 2016: Comparing Regulatory Good Practice," 2016, http://eba.worldbank.org/~/media/WBG/AgriBusiness/Documents/Reports/2016/EBA16-Full-Report.pdf.

Leadership. A key driver of the success of the L'Aquila Initiative was the public commitment of the G-8 and G-20 leaders to providing additional funding for agricultural development. This commitment was strengthened by the establishment of a clear funding target—\$22 billion—for the international contributions. Following the principles of the Accra Agenda for Action (2008), those supporting the L'Aquila Initiative expected that partner developing countries themselves would amp up domestic public expenditures in parallel with the new resources coming from international donors.

African countries had already committed to devote 10 percent of their public budgets to agriculture at the African Summit held in Maputo, Mozambique, in 2003. Under the banner of the Comprehensive African Agricultural Development Program (CAADP) led by the African Union and NEPAD, some countries had made remarkable progress toward this goal. However, in 2008, only 7 of the 50 signatory countries had actually reached the target level and many were still allocating less than 5 percent of public expenditure to agricultural development. Data from the years following the L'Aquila Initiative launch show few increases; indeed, public expenditures in Ethiopia, Malawi, and Zambia actually declined significantly as a share of total national budget expenditure. Data from the years followed and Zambia actually declined significantly as a share of total national budget expenditure.

While the expected complementarity between international and domestic resources was not achieved, analysts have still concluded that the long decline in funding for—and the lack of attention to—agricultural development has been reversed, especially in those countries where leaders have stepped forward with commitments to agricultural transformation. ¹⁵ Greater efforts to measure the relevant public expenditures by partner countries are still needed to assess progress, however. There is little transparency in the "black boxes" of public expenditures relevant to food and agriculture, so confirmation that commitments have been met is difficult. ¹⁶

Private investment. To expand funding for agriculture beyond the L'Aquila Initiative commitments, donors and partner governments launched new initiatives that sought increased collaboration and investment from private-sector firms and financial institutions. Grow Africa¹⁷ and the New Alliance for Food Security and Nutrition¹⁸ exemplify the expanded partnerships created by corporations, international public funding organizations, and governments. Such partnerships are credited with mobilization of more than \$10 billion in private-sector investments by early 2015, supported by increased donor funding and government efforts to improve the enabling environment for business.¹⁹ Private-sector involvement seems to have deepened the market orientation and economic sustainability of public investments through

¹³ ActionAid, "Five out of ten? Assessing progress towards the AU's 10% budget target for agriculture," 2009, http://www.actionaid.org/sites/files/actionaid/assessing_progress_towards_the_aus_10percent_budget_target_for_agriculture_june_2010.pdf.

¹⁴ Evgeniya Anisimova, "Public expenditure in agriculture: trends, 'black boxes' and more," Blog in *Policies, Institutions, and Markets,* International Food Policy Research Institute, January 12, 2016, http://www.ifpri.org/blog/public-expenditure-agriculture-trends-"black-boxes"-and-more.

¹⁵ S. Benin, "Aid Effectiveness: How Is the L'Aquila Food Security Initiative Doing?," IFPRI Discussion Paper, April 2014.

¹⁶ Anisimova, "Public expenditure in agriculture."

¹⁷ GrowAfrica, https://www.growafrica.com.

¹⁸ New Alliance for Food Security and Nutrition, https://new-alliance.org.

¹⁹ New Alliance and Grow Africa, "The 2014–2015 Report," 2015, 11, https://www.new-alliance.org/sites/default/files/resources/New%20Alliance%20Progress%20Report%202014-2015_0.pdf.

support for insurance initiatives and delivery of financial services as well as providing agricultural inputs and services.20

It must be noted that many critics have come forward to object to this emphasis. In their view, international private-sector engagement in agricultural development raises questions of national sovereignty, farmers' rights to save their own seeds, and the unfair competition that international companies impose on local firms. International businesses and government leaders have been depicted as working against smallholders rather than supporting them.²¹ Government-approved land allocations are termed "land grabs" as they enable foreign investors to take resources away from smallholder farmers. Increased supplies of modern production inputs—seeds, fertilizers—raise farmers' financial risks and threatened the "food sovereignty" of smallholders.²²

Facing New Threats to Food Security: The Post-L'Aguila Agenda

Recovery from 2007/08's perfect storm of food insecurity is far from complete. The world needs not only to "build back better" on the basis of lessons learned. It must also strive to better anticipate and respond creatively to the storms that will occur in the future.

Malnutrition. Nearly 800 million people are estimated to be consuming too few calories to support healthy and productive lives. The 2014 Global Nutrition Report shows that few children are eating diets that are of minimal acceptable quality or diversity.²³ In light of the evidence that has accumulated since the 2008 Lancet reports, the social and economic costs of persistent undernutrition are now energizing global leaders to increase investments in nutrition.²⁴

There is, however, new awareness that "malnutrition in all its forms" is a key challenge for the future. Rising rates of overweight and obesity are posing new threats to economies and societies around the world. Not only are there implications for the personal health of the 2 billion people who are estimated to be overweight/obese, but the costs of healthcare to treat the noncommunicable diseases associated with overweight/obesity could crowd out other public investments. Arguing that prevention is better than cure, public health specialists are searching for ways to head off a further surge of malnutrition, now characterized by

²⁰ Ibid., 12.

²¹ Claire Provost, Liz Ford, and Mark Tran, "G8 New Alliance condemned as new wave of colonialism in Africa," *The* Guardian, February 18, 2014, https://www.thequardian.com/global-development/2014/feb/18/q8-new-alliancecondemned-new-colonialism. See also Emma Rumney, "MEPs endorse criticism of African farming investment efforts," Public Finance International, June 8, 2016, http://www.publicfinanceinternational.org/news/2016/06/mepsendorse-criticism-african-farming-investment-efforts. This article refers to a report that succinctly catalogs the ways in which the New Alliance for Food Security and Nutrition is, by including private firms, harming smallholders' interests. Committee on Development, "Report on the New Alliance for Food Security and Nutrition," European Parliament, 2015, http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A8-2016-0169+0+DOC+PDF+V0//EN&mc_cid=4915083f63&mc_eid=36069f80a0.

²² William D. Schanbacher, The Global Food System: Issues and Solutions (Santa Barbara, CA: Praeger, 2014).

²³ International Food Policy Research Institute, "Global Nutrition Report 2014: Actions and accountability to accelerate the world's progress on nutrition," 2014, http://dx.doi.org/10.2499/9780896295643.

²⁴ Global Panel on Agriculture and Food Systems for Nutrition, "African Leaders for Nutrition," May 2016, http://www.glopan.org/news/african-leaders-nutrition.

overweight/obesity as well as hunger. The food industry and agricultural communities as well as consumers must be part of this effort.

Demographic change. Rising rates of urbanization are transforming food systems around the world. ²⁵ The greater economic opportunities associated with urbanization have created an increasingly affluent middle class in many countries. Demand for animal-source foods, fruits, vegetables, oil, sugar, and processed foods rises with incomes and market access. In many cases, food imports also increase, especially in countries where internal road networks and transport services do not efficiently connect rural producers with urban markets. At the same time, low-income urban populations are highly sensitive to food prices, and the nutritional quality of their diets is highly dependent on their access to diverse foods.

Food safety. The presence of foodborne pathogens in the food supply has emerged as a critical element of food security. ²⁶ Unsafe food reduces the effective utilization of the nutrients in food (the third pillar of food security) as well as causing illness and death. The World Health Organization (WHO) has recently identified foodborne and zoonotic diseases as major contributors to the global burden of disease. ²⁷ The deadly threat of aflatoxin in maize and other foods remains in the headlines in eastern Africa and political leaders across the continent have expanded their search for solutions. ^{28, 29}

Price volatility. The soaring global food grain prices experienced in 2007/08 and 2010/11 have now come down. For many food- and agricultural commodity-exporting countries, the problem now is that global prices are too low. Farmers' incentives to increase production and productivity are diminished and their purchasing power declines. Many food-importing countries, on the other hand, are responding to the threat of future price volatility by emphasizing local food production and the design and implementation of social protection schemes that will protect their vulnerable populations against future shocks.

At the same time, the impacts of the 2007/08 financial crisis and the economic turmoil stirred up by volatile fuel as well as food prices are still playing out, with varying impacts on food security. Declines in global oil prices, for example, have severely cramped economic growth rates and food security in Nigeria and Angola. Burgeoning food and agricultural markets in Asia have cooled. Economic growth rates around the world have been, to quote the International Monetary Fund, "too slow for too long." Rather than an Africa rising strongly on the basis of

²⁵ The institutional innovation of "food policy councils" has begun to take root in the United States and Canada as a way of fostering the growth of vibrant food systems in urban areas through actions that strengthen local capacities for increasing access to safe, affordable, and locally produced foods. See Food Policy Networks, "Food Policy Council Map," Johns Hopkins Center for a Livable Future, http://www.foodpolicynetworks.org/fpc-map/.

²⁶ Global Panel on Agriculture and Food Systems for Nutrition, "Food Safety," 2016, http://www.glopan.org/food-safety.

²⁷ Foodborne Disease Burden Epidemiology Reference Group, "WHO Estimates of the Global Burden of Foodborne Diseases," World Health Organization, 2007–2015, http://www.who.int/foodsafety/areas_work/foodborne-diseases/ferg/en/.

²⁸ Rose Athumani, "Tanzania: TFDA Tests Find Higher Aflatoxin Levels in Cereals, Maize Flour," *Tanzania Daily News*, August 2, 2016, http://allafrica.com/stories/201608020728.html.

²⁹ Partnership for Aflatoxin Control in Africa, http://www.aflatoxinpartnership.org.

³⁰ International Monetary Fund (IMF), "World Economic Outlook: Too Slow for Too Long," April 2016, http://www.imf.org/external/pubs/ft/weo/2016/01/pdf/text.pdf.

agricultural-led growth propelled by growing domestic and export markets, some observers are seeing the reality of a "multispeed" Africa in which some populations are left behind. 31

Mechanisms for managing continuing market shocks and other uncertainties in the food system are still a work in progress. The G-20's establishment of the Agricultural Markets Information System at FAO in 2011 has, along with the strengthening of several other famine early warning systems, contributed to better information on prices and price volatility. But many of the other measures suggested to improve the stability of markets and affordability of food—better global governance of financial and commodity markets, regional grain reserves, better coordination of policies that affect food security, sustained increases in agricultural productivity—have not yet been fully or effectively implemented.³²

A New Food Security Objective: Resilience

Given the persistence of volatility in food and agricultural markets and the vulnerability associated with extreme poverty and other inequities, increasing resilience has emerged as a new area of focus for regional leaders and donors.

"Resilience" implies that people, communities, and countries are able to withstand and recover from short-term setbacks—whether from weather, pests or diseases affecting their crops and livestock, household illness, falling incomes, or other factors. There is a growing dialog with regard to the framing of resilience interventions, that is, whether they should be preventive (what is often called the "engineering" approach), enable affected populations to "bounce back" to a prior status quo ante (what is referred to as an "ecological" approach), or to facilitate the abilities of stress- or shock-affected populations to "bounce forward."33

The U.S. government's recently issued Global Food Security Strategy 2017–2021 supplements the twin objectives of Feed the Future, reductions in poverty and hunger, with a third: strengthened resilience among people and systems. Defined as "the ability of people, households, communities, countries, and systems to reduce, mitigate, adapt to, and recover from shocks and stresses to food security in a manner that reduces chronic vulnerability and facilitates inclusive growth," this additional objective suggests a combination of abilities to bounce back and bound forward. The objective recognizes that "increasingly frequent and intense shocks and stresses threaten the ability of men, women, and families to sustainably emerge from poverty."34

A number of the mechanisms that could be expanded to build resilience have already been mentioned as part of conflict recovery or food crisis response. Social protection or safety net systems, efficient trade systems, sound macroeconomic management, a thriving business sector—all of these will contribute to enhanced resilience. Additional attention is being directed

³¹ IMF, "Regional Economic Outlook: Sub-Saharan Africa Multispeed Growth," October 2016, http://www.imf.org/external/pubs/ft/reo/2016/afr/eng/pdf/sreo1016.pdf.

³² Alberto Garrido et al., *Agricultural Markets Instability: Revisiting the recent food crises* (New York: Routledge, 2016).

³³ Daniel Borenstein, "Bouncing Forward: Why 'Resilience' Is Important and Needs a Definition," Environmental Change and Security Program, Woodrow Wilson Center, February 24, 2014, https://www.wilsoncenter.org/ article/bouncing-forward-why-resilience-important-and-needs-definition.

³⁴ U.S. Government, USG Global Food Security Strategy, 2017–2021.

toward newer tools and approaches: agricultural insurance, climate-smart agriculture, and social change.

Insurance mechanisms have been extensively tested and promoted as contributing to resilience and food security by reducing the economic risks that rural producers face from adverse weather conditions.³⁵ Commercial crop and livestock insurance pilots have shown how agricultural producers might be able to tap the power of financial markets to protect their economic assets and stabilize their incomes but broad-based uptake has also proven very challenging. Lloyd's of London proposes that food security risks "represent a substantial opportunity for insurers, who will have a key role in assisting clients to understand their risk exposure and to tailor appropriate risk transfer solutions." Clarke and Dercon argue that use of insurance and market-hedging tools could help national leaders to make natural disasters "dull" and boost the prospects for sustained food security.³⁶

The World Economic Forum (WEF) Global Risks Report (2016) also ranks global food security as a high risk, but points to the need to deal with the threat of climate change in order to increase resilience at both national and producer levels.³⁷ In the WEF view, resource constraints—land and water—are already limiting the capacity of agricultural producers to respond to the food needs of a growing and wealthier population. By harming agricultural production and disrupting food systems, climate change raises the WEF's concerns regarding political and social stability as well as the possibility of mass migration.

"Climate smart" agriculture has emerged as a key approach to enhancing the resilience of farming and animal production. Through a combination of measures that mitigate greenhouse gas emissions from agriculture and that enable producers to adapt to ongoing climate change, a climate-smart approach is believed to be potentially capable of achieving levels of production needed to increase global food supplies even as the weather variability associated with climate change causes year-to-year challenges.

To be truly climate-smart, however, farm managers will need to be supported by technology research, climate monitoring, and policy incentives. The CGIAR has taken up the challenge of developing climate-smart policies and practices, with the Climate Change, Agriculture and Food Security (CCAFS) program leading the way.³⁸ But other research institutions are also responding, for example, by developing crop varieties that are resilient in the face of recurring droughts and floods as well as adapted to the rising temperatures and water scarcity generally associated with climate change. The speed and scale at which these new agricultural interventions can be developed and adopted, including by poor and vulnerable rural households, is still an open question.

³⁵ USAID's BASIS Collaborative Research Support Program, or Innovation Lab, has supported extensive testing of different approaches. See Nathan Jensen, Chris Barrett, and Andrew Mude, "Index-based insurance: Lottery ticket or insurance?," ILRI Research Brief 53, July 2015, http://basis.ucdavis.edu/wp-content/uploads/2016/09/ ResearchBrief53.pdf.

³⁶ Daniel J. Clarke and Stefan Dercon, *Dull Disasters: How Planning Ahead Will Make a Difference* (New York: Oxford University Press, 2016).

³⁷ World Economic Forum, Global Risk Report, 2016, 50.

³⁸ Climate Change, Agriculture and Food Security, "CCAFS 2015 Annual Report," CGIAR, 2015, https://ccafs.cgiar.org.

The promotion of social change conducive to food security is implicit in many of the areas discussed above. Policies and practices regarding women and girls are a clear priority for change if social and economic resilience is to be strengthened. "Women and girls are uniquely and disproportionately affected by armed conflict and disaster. In post conflict and disaster settings, they often suffer from lack of security and are excluded from decision-making and participation in economic, social, and political spheres. National laws and judicial systems also remain discriminatory against them. Crisis could provide an opportunity to break down traditional barriers and roles which often limit women's contribution to society, and 'to build back better' where inequality is not perpetuated."³⁹

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³⁹ UN Development Program, "Women in Conflict Prevention, Peacebuilding and Recovery," http://www.undp.org/content/undp/en/home/ourwork/crisispreventionandrecovery/focus_areas/gender_equality_andwomensempowerm ent.html.

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Looking Forward

The storms of political instability, food insecurity, and conflict that are currently thundering around the world are unlikely to disappear from forecasts of the next few decades. The negative outcomes that will emerge from the food insecurity associated with ongoing conflicts will affect populations' economic progress, health, and wellbeing for generations to come. The struggles of fragile and conflict-affected countries to regain their food security footing as they rebuild conditions for peace and stability forcefully underscore the importance of the goal and the challenges to reaching it. Global political leaders aware of the critical nature of food security should recognize that it is in their national interests to search for potential avenues that improve preparedness for recurring storms both at home and abroad.

Since 2009, the principal focus of the L'Aquila Food Security Initiative—related programming has been supply oriented, that is, boosting agricultural productivity in countries where political leaders are committed to progress. Most countries that have benefited from the additional resources have experienced conflict in the recent past and some are still preoccupied with building peace and national institutions. L'Aquila-inspired programs have emphasized the development and deployment of new production and processing technologies, especially those appropriate to smallholder farmers; the introduction of innovations to reduce food waste and loss; the improvement of food safety; and the connection of smallholders to dynamic and competitive markets. International resources have been "results oriented," a goal that has led to partnerships with countries that have shown commitment and capacity to engage in programs offering good chance of higher yields and farm incomes.

Adopting the objective of increased resilience in agriculture and food systems is a clear next step for food security efforts. It should be noted, though, that, going beyond the climate change context in which most investments in resilience have been made will, according to the CGIAR CCAFS program, require some new thinking. This includes: the development of agreed metrics; the clear definition of adaptation—whether proactive or in response to change, stresses and shocks; the recognition that resilience is a latent characteristic (i.e., it does not manifest itself prior to a change, stresses, and shocks); and the acknowledged risk of unintended negative impacts.¹

Looking forward, though, the ambitious and interdependent global goals embodied in the SDGs seem to be seriously at odds with the realities of the food security, conflict, and political instability seen today. The SDGs surely underestimate the difficulties of helping more

¹ T. Hills et al., "A Monitoring Instrument for Resilience," CCAFS Working Paper no. 96, CGIAR Research Program on Climate Change, Agriculture and Food Security, February 17, 2015, https://cgspace.cgiar.org/rest/bitstreams/48960/retrieve.

than a billion people living in fragile and conflict-affected states to regain a sustainable path of equitable economic growth and reconstruct a torn social fabric within 15 years.

As countries and their development partners learned in their joint efforts to realize the goals of the L'Aquila Food Security Initiative, sustainable food security for all is not easily achieved. Even when national leaders are committed to pursuing market-based, inclusive growth as a clear pathway to improved food security and there is relative peace and security, new sources of turbulence may emerge. International collaboration to anticipate and prepare for recurring storms of food insecurity—especially in fragile and conflict-affected states—is essential.

In addition to following the L'Aquila example of high-level political commitment to a clear objective and the mobilization of an increased level of investments in food security, national and international political leaders should:

- 1. Establish an annual high-level summit for reviewing progress on global food security. Near-term actions consistent with the Sustainable Development Goals must deliberately strengthen capacities to meet food and nutrition security goals as new risks and uncertainties emerge. Collaborative monitoring of measurable near-term benchmarks will facilitate midcourse corrections by implementing institutions (multilateral and bilateral development and humanitarian organizations, nongovernmental organization, private-sector businesses, and military and peacekeeping forces). However, there is currently no high-level political commitment to food security comparable to that established by the L'Aquila Food Security Initiative. Framing such a commitment in full recognition of the scale of global actions that will be needed over a lengthy period of time should be a priority for the G-7 at their May 2017 meeting in Italy.
- 2. Work jointly to develop strategic plans that will enable conflict-affected populations to recover and to strengthen their resilience to future threats to food security. Each fragile and conflict-affected situation has its own history and unique resources and opportunities for building resilience for food security at various levels—from family to farm to community to nation. Regaining political stability and building social and economic resilience will require broad and sustained support for transformative policies, institutions, and investments. Ad hoc and opportunistic interventions or international programs that pursue objectives not shared by local governance institutions risk increasing tensions and the persistence of food and nutrition insecurity.
- 3. Seek a better balance of effort among the many actors involved in food security. There are multiple sources with the expertise, resources, and initiative needed to prepare for and weather the recurring storms of food insecurity in all countries, but especially in fragile and conflict-affected states. Military intervention or peacekeeping operations are likely to be necessary to establish conditions for peace and security of both local populations and international organizations. While international food assistance will be an important stabilizer in the aftermath of conflict, resumption of economic and agricultural growth must provide the necessary momentum toward sustained food

security. This will involve not only effective political leadership and good governance but also the mobilization of appropriate technical expertise, public financing, responsible business investments and trade, and the initiatives of communities and households themselves. All are essential to sustained success.

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Emmy Simmons, a nonresident senior adviser to the CSIS Global Food Security Project, is an independent consultant on international development issues with a focus on food, agriculture, and Africa. She serves as cochair of AGree, an initiative that brings together a diverse group of interests to transform U.S. food and agriculture policy to meet the challenges of the future and as a member of the Global Panel on Agriculture and Food Systems for Nutrition. She also serves on the boards of several organizations engaged in international agriculture and global development more broadly, including the World Vegetable Center, the Partnership to Cut Hunger and Poverty in Africa, and SNV-USA, and sits on several advisory committees for initiatives focused on agricultural development in sub-Saharan Africa and South Asia. Ms. Simmons continues to participate in activities of the Roundtable on Science and Technology for Sustainability at the National Academies of Science, for which she served as cochair. She completed a career of nearly 30 years with the U.S. Agency for International Development (USAID) in 2005, having served since 2002 as the assistant administrator for economic growth, agriculture, and trade, a presidentially appointed, Senate-confirmed position. Prior to joining USAID, she worked in the Ministry of Planning and Economic Affairs in Monrovia, Liberia, and taught and conducted research at Ahmadu Bello University in Zaria, Nigeria. She began her international career as a Peace Corps Volunteer in the Philippines from 1962 to 1964. She holds an M.S. in agricultural economics from Cornell University and a B.A. from the University of Wisconsin-Milwaukee.

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