





### **EXECUTIVE SUMMARY**

The CCAPS Food Security in Africa Series is composed of four briefs that focus on combating food security vulnerability in Sub-Saharan Africa. This first brief in the series examines the concept of resilience, which is generally explained as the ability of a country or system to recover from shocks, such as conflict or climatic events. This brief looks at how this concept of resilience can be operationalized and explores the implications of a resilience framework on food security interventions in fragile states. It also describes how resilience can promote stability—the temporal dimension of food security—through policies that seek to diffuse risk and reduce vulnerability to shocks. Finally, it discusses who should be responsible for implementing resilience strategies and how these strategies can be put in place in weak institutional settings.

### **AUTHOR**

**Cherie Saulter** is a graduate of the Master of Global Policy Studies program at the LBJ School of Public Affairs at the University of Texas at Austin.

### **EDITOR**

**Catherine Weaver** is an associate professor at the LBJ School of Public Affairs and distinguished scholar at the Robert S. Strauss Center at the University of Texas at Austin.

Population growth in much of Africa is rising faster than growth in food production. Coupled with the effects of climate change, which have the potential to further diminish crop yields in some parts of Africa through drought, floods, and increasingly erratic weather patterns, this trend can have negative implications for food security throughout the continent. This is particularly true in the region that spreads from the Sahel through the Horn of Africa, where susceptibility to drought is already high. Many of the countries in this region have experienced recurring famines and the time in between food crises seems to be shrinking. In Africa, where approximately 70 percent of the population works in agriculture, famine not only affects access to food, but also the livelihoods of smallholder farmers and pastoralists.<sup>1</sup>

Weak governance and conflict in much of Sub-Saharan Africa are additional factors that often prevent or disrupt progress towards food security.<sup>2</sup> Criteria vary on measures of state fragility. The Organisation for Economic Co-operation and Development (OECD) defines a fragile state as one that "has weak capacity to carry out basic governance functions, and lacks the ability to develop mutually constructive relations with society," noting further that "fragile regions or states are also more vulnerable to internal or external shocks such as economic crises or natural disasters."<sup>3</sup>

In 2014, the OECD included 29 countries in Sub-Saharan Africa in its list of fragile states (see Figure 1). Of those, 23 are also considered least developed countries (LDCs). The OECD's conception of state fragility emphasizes the lack of a social contract between a state and its citizens.<sup>4</sup> These states' increased vulnerability to shocks like conflict or climatic events results from their limited institutional capacity to respond to

Policies geared toward resilience should not only focus on bouncing back, but also on not falling behind. Effective resilience thinking should preempt shocks, rather than being strictly reactionary.

crises. Local and international policies focused on building resilience could thus aid these fragile states, which are often the most dramatically affected when disasters occur, in adequately responding to shocks.

### WHAT IS RESILIENCE?

Resilience has grown increasingly prominent in the development literature over the last several years. However, definitions of resilience vary across development agencies. USAID, for example, defines resilience as "the ability of people, households, communities, countries, and systems to mitigate, adapt to and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth." While many definitions focus primarily on recovery from shocks, effective resilience thinking should preempt shocks, rather than being strictly reactionary. Policies geared toward resilience

should not only focus on bouncing back, but also on not falling behind. Oxfam stresses that resilience means that people should be able to "improve their well-being *despite* shocks, stresses, and uncertainty" rather than merely 'bouncing back.'6 Thus a resilience framework should consider strategies for responding when crises occur as well as ways of addressing preexisting systemic conditions that exacerbate the effects of shocks. While development practitioners have not reached consensus on how to make resilience actionable, there is some agreement on the underlying problems that resilience strategies should aim to address. Among these challenges to resilience are high levels of inequality, the unbalanced distribution of risk, and uncertainty about the future.

### Managing Risk

Risk, at the individual level, can be thought of as the difference between a person's vulnerability—or his likelihood of being affected by an event—and his coping potential. Disasters disproportionately affect fragile states and, within those, the poor are hit the hardest. Their risk is the greatest, in part, because of chronic livelihood instability and the limited coping strategies available to them. Analyzing various

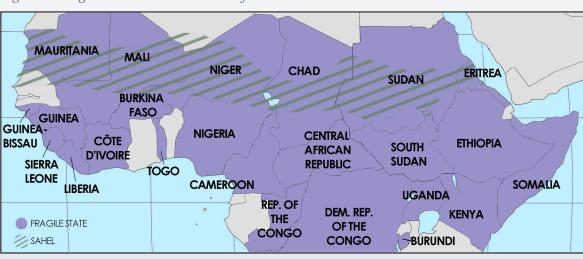


Figure 1. Fragile States in Sub-Sahara Africa

Source: OECD 2013

vulnerability indices against inequality shows that vulnerability and inequality are correlated such that areas with the highest vulnerability are also those with the highest wealth inequality. Increased vulnerability at lower income levels, where coping potential is diminished, results in what some have termed an "inequality of risk." This risk inequality makes it more difficult for individuals at lower socioeconomic strata to bounce back from shocks, which can impede the recovery of the country as a whole.

Managing risk is an important component of building resilience. Because "irreducible uncertainty equals irreducible risk," disaster risk management (DRM) is, among other things, concerned with how to more equitably spread risk. Risk can be managed by building adaptive capacity to better absorb shocks, more effectively utilizing early warning systems, and strengthening the coping potential of the most vulnerable populations. The next section will discuss the latter of these recommendations.

### Variability and Vulnerability

If resilience explains the ability to mitigate and manage risk, then, when assessing a household's well-being, one must look not only at poverty metrics that capture income or absolute wealth. Rather, it is necessary to also consider the household's vulnerability. Evaluating adaptive capacity gives a clearer picture of how shocks will affect a household's well-being. 10 For example, the fact that smallholder farmers' and pastoralists' livelihoods are tied to weather patterns introduces a degree of uncertainty and complicates adaptive strategies.<sup>11</sup> The uncertainty, or variability, of conditions like weather, price volatility, or conflict can increase these populations' vulnerability. 12 If not met with adequate coping strategies, these conditions will act as risk multipliers.

Food security is often conceptualized as having four components: availability, access, utilization, and stability.<sup>13</sup> Resilience thinking, especially as it relates to reducing vulnerabilities,

primarily addresses the *stability* dimension of food security. <sup>14</sup> If resilience is conceived as the ability to thrive in spite of shocks, it implicitly encompasses the *availability*, *access*, and *utilization* components of food security but, as a reduction of chronic vulnerability, the concept of resilience must include a dynamic of *stability*. Resilience building, then, should focus on how to prevent shocks from disrupting the stability of the physical dimensions of food security. A common and frequently effective method of increasing stability and reducing uncertainty is through social protection programs.

Risk can be managed by building adaptive capacity to better absorb shocks, more effectively utilizing early warning systems, and strengthening the coping potential of the most vulnerable populations.

Social protection programs are designed to promote livelihood stability and to ensure access to basic necessities like food and clean water. These programs act as safety nets to mitigate risks for poor and vulnerable populations. Social safety nets advance food security by essentially providing insurance against shocks and volatility. They can increase stability in food markets by intervening in the supply or demand side (or both) to supplement income, either directly or through lowering prices, thereby improving access to food. Having social safety nets already in place can also reduce lag time in delivery of food and other provisions when emergency situations arise.

Social safety nets can build food security resilience for farmers and consumers by improving stability and protecting against uncertainty. Agricultural input subsidies make it cheaper to grow crops. Weather-indexed insurance provides protection from climate-related shocks. Strategic food reserves store crops for times of shortage and ensure that farmers have buyers. Social protection programs can improve access for consumers either

through direct provision of food or increased purchasing power through cash transfers or work programs, for example.<sup>15</sup>

A crucial feature of social protection programs is that they target the most vulnerable members of society, like the chronically food insecure. A focus on development from the bottom up reduces vulnerability—particularly among marginalized communities—and strengthens collective resilience. For example, Niger is in the process of implementing a social protection program for food security, which is designed to be implemented at the grassroots level, with substantial input from civil society to encourage inclusive growth (see inset box).

The cases of Niger and Mali discussed here, as well as the Productive Safety Net Program (PSNP) in Ethiopia, offer early evidence that developing social protection programs or otherwise reducing inequality and vulnerability, while improving adaptive capacity, can be effective mechanisms for building resilience. However, implementation of these resilience strategies is especially difficult in fragile states, where they are often most needed. The next section will discuss resilience strategies and responsibility for action in fragile states.

# ACHIEVING RESILIENCE IN WEAK INSTITUTIONAL SETTINGS

If fragile states are defined by their inability to perform the basic functions of government, then it is likely impracticable to assume that they will be capable of implementing often-complex social protection programs. <sup>17</sup> This raises several questions about where responsibility lies for taking action on resilience building.

### Who Pays for Resilience Building?

Climate variability has disproportionately affected smallholder farmers in low-income countries that do not have the means to upgrade infrastructure, increase technology, or otherwise build adaptive capacity. International financing is thus one option

## A Grassroots Approach: Nigeriens Helping Nigeriens<sup>16</sup>

In less than a decade, Niger has experienced three major food crises, weakening the livelihoods of smallholder farmers and pastoralists. Additionally, an influx of more than 65,000 refugees during the conflict in Mali in 2012 further contributed to food scarcities.

In 2011 Niger signed on to the Scaling Up Nutrition Movement, a global collaboration of governments, international organizations, and individuals focused on cross-sectoral nutrition interventions. Niger is currently finalizing and seeking funding for its "3N" program, Nigériens Nourrissent les Nigériens (Nigeriens Nourish Nigeriens). There has been an increased focus on food security since President Mahamadou Issoufou took office, especially compared to former President Mamadou Tandja who denied that Niger was experiencing hunger during the 2005 food shortages.

The goals of the 3N program are to promote food security through several agricultural initiatives, including: diversifying agricultural production, improving seed varieties, increasing irrigation, and improving the transfer of milk from the north to the south.

The location-specific initiatives are designed to be conceived and implemented at the grassroots level and the program strives to include vulnerable groups.

The 3N plan builds resilience by reducing uncertainty, or variability, and making livelihoods more stable through increased diversification and better storage of crops. The plan also focuses on the environmental impact and sustainablity of these initiatives to ensure that current gains are not diminishing future resilience.

for funding resilience building in these countries. The African Union Commission, for example, has requested international financing, transfer of technology, and development assistance for its African Agricultural Agenda—a means to support investment for climate change adaptation. <sup>18</sup> Calls for financing through the UN Framework Convention on Climate Change have been more controversial. During its climate change conference (COP19) in Warsaw, for example, a group of 132 countries walked out of the negotiations after developed countries refused to discuss paying "loss and damage" fees to developing countries as recompense for developed countries' contributions to climate change. <sup>19</sup>

Other financing options might include private sector investment in resilience-building technologies, new financing through domestic tax collection, and capturing lost revenues through international tax treaty reform. Regarding domestic tax collection, individual income taxes are one option, and there is extensive literature on the potential benefits of taxation on improving state legitimacy. Another option is the creation and revision of tax treaties. Sub-Saharan Africa, for example, loses more money in tax avoidance and evasion (which is highly concentrated in the extractive industries) than it receives in either foreign aid or foreign direct investment. Capturing some of this lost revenue could be a starting point for financing adaptation.

### Who Implements Resilience Strategies?

Separate from the question of resilience financing is a determination of who should assume responsibility for implementation of resilience strategies. While implementation may be tied to financing in many cases, it is important to consider whether other actors, like civil society organizations or municipal governments, might be more effective than national governments or international organizations at encouraging inclusive growth.

There is debate over whether social protection programs or provision of services can act as state-building mechanisms and improve governance capacity.<sup>22</sup> One side of this argument contends that safety nets enhance the visibility of the government and, if carried out effectively, can increase trust. If the theory holds true, it

is possible that implementation of resilience strategies could have the potential to build state legitimacy. This raises the question of whether international provision of resilience assistance would thus interfere with the capacity building of the state.<sup>23</sup>

A focus on development from the bottom up by promoting livelihood stability can reduce vulnerability—particularly among marginalized communities—and strengthen collective resilience.

## RESILIENCE THINKING IN EMERGENCY RESPONSE

Building long-term, sustainable development policies with risk-mitigation components can reduce the need for the kind of emergency response systems that are currently in place to address food insecurity in many countries. An important component of resilience building is thus how humanitarian aid and disaster response can be transformed into such long-term sustainable domestic policies. For example, Mali's Tree of Hope program, initially conceived as an emergency response, is planned to eventually be scaled up to serve as the nation's social safety net system (see inset box).

Another example of an emergency response transformed into a national social protection policy is Ethiopia's Productive Safety Net Program (PSNP). Established in response to the 2011 famine, the PSNP was able to provide assistance in a two-month time frame, while it took NGOs an average of eight months. The PSNP was designed as a safety net program to support vulnerable households during the lean season, but it also includes a risk financing mechanism, with a buffer budget to cover an additional three month provision of food and financial support. This allows the PSNP to be scaled up and extended during crises. Pre-existing information on beneficiaries meant that the government did not need to conduct targeting evaluations before it could begin providing support in response to an emerging food crisis. The costs of the PSNP were also much lower than international relief efforts.<sup>24</sup>

Through ex ante identification of vulnerable populations and the potential for rapid expansion, social protection programs have an "embedded emergency response" capacity, which can be more efficient and cost effective than international interventions.<sup>25</sup> When considering how to allocate funding for resilience or climate change adaptation, donors could thus bear in mind that creating proactive mechanisms for risk mitigation is often cheaper than post-hoc emergency response. Support for social protection, reduction of inequality, and sustainable development may, in the long run, be better investments for risk reduction than disaster preparedness or emergency response mechanisms that do not focus on reducing chronic vulnerability. Rather than only developing early warning systems to detect the physical and environmental conditions that cause famine, the international community could thus consider an even earlier warning system—one that highlights the systemic conditions that lead to crises: high levels of inequality, the unbalanced distribution of risk, and uncertainty that impacts livelihood security.

## MOVING AWAY FROM STATE FRAGILITY

In order to ensure the stability of access to and utilization of appropriate food and nutrition—despite external and internal shocks—civil society, local governments, and the international community may make more gains in achieving food security by placing greater emphasis on building resilience. Applying a resilience framework to food security suggests that more equitably spreading risk, reducing vulnerability to uncertainties, and building adaptive capacity from the bottom up can improve a country's ability to recover from shocks and avoid falling into crises.

Resilience building can be thought of as moving away from state fragility. In practice, resilience is manifested in stronger institutional and household capacities to absorb and respond to shocks coupled with systemic conditions that do not place undue risk on vulnerable populations. Social protection programs, which focus on the poorest and most vulnerable households, have the unique potential to improve food security and resilience by stabilizing incomes, insuring against shocks, and improving well being.

### Scaling Up: Mali's Tree Of Hope<sup>26</sup>

The *Jigiséméjiri*, or Tree of Hope, program in Mali will provide cash transfers of roughly USD \$20 per month to 62,000 households for three years. Conceived as an emergency response following the outbreak of conflict in 2012, which sent the country into a food crisis, *Jigiséméjiri* is planned to gradually scale up to become a national social safety net system. As part of the governement's National Action Plan to Expand Social Protection, *Jigiséméjiri* aims to mitigate household vulnerabilities and increase distaster preparedness.

Part of the initial phase of *Jigiséméjiri* includes developing a targeting strategy to include the most vulnerable households, identifying and registering beneficiaries, and putting procedural plans into place for payments. Having these crucial components of social protection program implementation already in place is invaluable when crises arise. As with Ethiopia's Productive Safety Net Program after the 2011 food crisis, if the foundation is already laid for delivering safety nets to the most vulnerable households, then provision of emergency relief will be faster and more efficient, minimizing the time these populations spend suffering after shocks.

### **ENDNOTES**

- Food and Agriculture Organization (FAO), The State of Food Insecurity in the World: Undernourishment around the World in 2012 (Rome: FAO, 2012), 9.
- 2 According to the FAO, food security "exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life." See FAO, An Introduction to the Basic Concepts of Food Security (Rome: FAO, 2008), 1.
- 3 Organisation for Economic Co-Operation and Development (OECD), Fragile States 2013: Resource Flows and Trends in a Shifting World (Paris: OECD, 2012), 15.
- 4 Ibid
- 5 USAID, "The Resilience Agenda" (Washington: USAID, 2012).
- 6 Debbie Hiller and Gina E. Castillo, No Accident: Resilience and the Inequality of Risk (Oxford: Oxfam, 2013), emphasis added.
- 7 Ibid., 16. This analysis used GINI coefficients as the measure of inequality.
- 8 Ibid., 14.
- Robert Lenzner, "An Age of Irreducible Uncertainty," Forbes, August 10, 2011.
- 10 Ethan Ligon, Measuring Risk by Looking at Changes in Inequality: Vulnerability in Ecuador, CUDARE Working Paper 1095 (Berkeley: University of California, Berkeley Department of Agricultural and Resource Economics, 2010).
- 11 Christophe Béné et al., "Testing Resilience Thinking in a Poverty Context: Experience from the Niger River Basin," Global Environmental Change 21 (2011), 1174.
- 12 USAID, Presentation on the Sahel JPC Strategic Plan: Reducing Risk, Building Resilience and Facilitating Inclusive Economic Growth, www.usaid.gov/sites/default/ files/documents/1860/Sahel%20JPC%20Strategy%20 Presentation.pdf.
- 13 FAO, An Introduction to the Basic Concepts of Food Security (Rome: EC-FAO Food Security Programme, 2008).
- 14 Rainer Gross et al., *The Four Dimensions of Food and Nutrition Security: Definitions and Concepts* (Rome: FAO, 2000), 5.
- 15 Beatrice Lorge Rogers and Jennifer Coates, "Food-Based Safety Nets and Related Programs," Social Safety Net Primer Series 0225 (Washington: The World Bank, 2002), 1-8.

- 16 The information in this example is from FAO, *The FAO Component of the Consolidated Appeals 2013: Niger* (Rome: FAO, 2012), 4; and Liz Ford, "Niger Seeks Funds for Nigeriens Nourish Nigeriens Agriculture Initiative," *The Guardian*, November 13, 2012.
- 17 OECD, 15.
- 18 ClimDev-Africa, "At COP19 Africa Demands Concrete Action on Climate Finance, Ambitious Emission Cuts by Main Polluters," November 19, 2013, www.climdev-africa. org/node/1079.
- 19 John Vidal, "Poor Countries Walk Out of UN Climate Talks as Compensation Row Rumbles On," *The Guardian*, November 20, 2013.
- 20 See for example Deborah Bräutigam, Odd-Helge Fjeldstad, and Mick Moore, Taxation and State-Building in Developing Countries: Capacity and Consent (Cambridge: Cambridge University Press, 2008); Mick Moore, "Revenue Reform and Statebuilding in Anglophone Africa," World Development 60 (2014), 99–112; OECD, Governance, Tax, and Accountability: Issues and Practices (Paris: OECD, 2008); and Charles Tilly, Coercion, Capital and European States, AD 990-1992 (Oxford: Blackwell, 1990).
- 21 Kofi Annan, "G20: How Global Tax Reform Could Transform Africa's Fortunes," Africa Progress Panel, September 5, 2013.
- 22 Rachel Slater, Richard Mallett, and Samuel Carpenter, Social Protection and Basic Services in Conflict-affected Situations: What Do We Know? Secure Livelihoods Research Consortium Briefing Paper 2 (London: ODI, 2012), 4.
- 23 Audrey Sacks, Can Donors and Non-State Actors Undermine Citizens' Legitimating Beliefs? Economic Premise No. 95 (Washington: World Bank, 2012).
- 24 Global Humanitarian Assistance, GHA Report 2012 (Somerset: GHA, 2012), 77.
- 25 USAID, Presentation on the Sahel JPC Strategic Plan.
- 26 The information in this example is from The World Bank, "Mali: 'Tree of Hope' Provides Emergency Aid to the Needy," September 9, 2013.

#### THE ROBERT S. STRAUSS CENTER™

FOR INTERNATIONAL SECURITY AND LAW



THE UNIVERSITY OF TEXAS AT AUSTIN
2315 RED RIVER STREET, AUSTIN, TEXAS 78712
PHONE: 512-471-6267 | FAX: 512-471-6961
CCAPS@STRAUSSCENTER.ORG
STRAUSSCENTER.ORG/CCAPS

This brief produced jointly with



### HOW TO ORDER THIS PUBLICATION

To order a copy of this document, contact the CCAPS program at 512-471-6267 or ccaps@strausscenter.org. Please reference the document title and publication date.

This material is based upon work supported by, or in part by, the U. S. Army Research Office grant number W911NF-09-1-0077 under the Minerva Initiative of the U.S. Department of Defense.

© 2014 Robert S. Strauss Center for International Security and Law. All rights reserved.

