

Ethiopia Development Food Security Activities

Baseline Resilience Analysis Brief

Introduction

The United States Agency for International Development (USAID) Office of Food for Peace (FFP) awarded funding for four multi-year development food security activities (DFSAs) in Ethiopia. The 2016-DFSAs aim to enhance resilience to shocks and livelihoods, and improve food security and nutrition for rural households vulnerable to food insecurity.

This brief presents findings from a study of resilience using DFSA baseline data collected between July 4 and August 21, 2017.¹ The research examines the shocks that occurred and how households coped, and what elements help households mitigate, adapt to, and recover from shocks and stresses in ways that reduce chronic vulnerability and facilitate inclusive growth.² This brief presents evidence that:

- The main shock, variable rain/drought, affected almost all households in the Catholic Relief Services (CRS) area.
- Resilience capacities are associated with well-being outcomes (expenditures, poverty, dietary diversity, and recovery). Adaptive capacity has the strongest influence on perceived recovery.
- Access to cash savings, livestock assets, and aspirations/confidence to adapt are significant drivers of positive well-being outcomes.



¹ USAID. 2018. Final Report: Baseline Study of Food for Peace Development Food Security Activities (DFSAs) in Ethiopia. Report by ME&A.

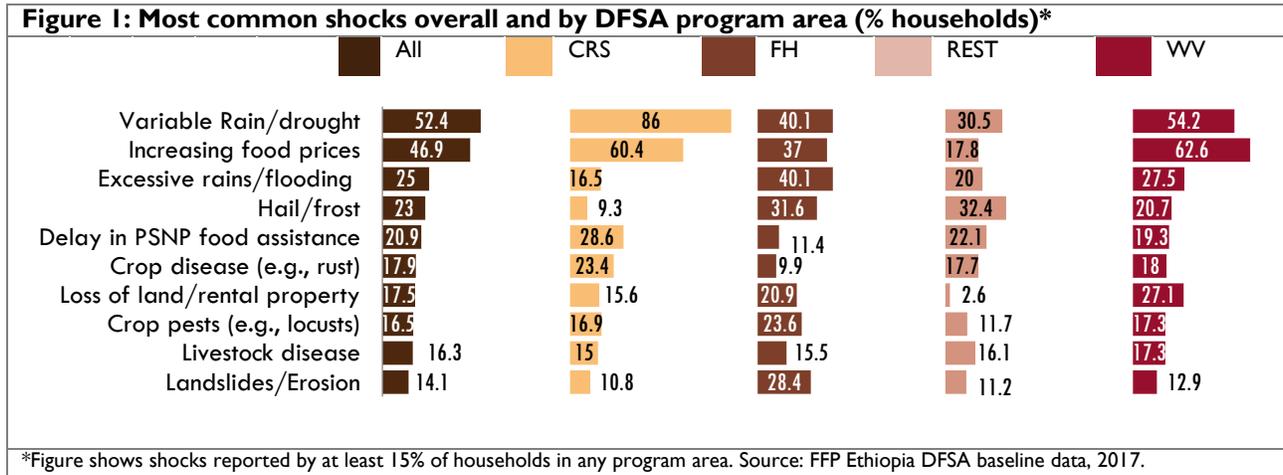
² Description based on USAID definition: USAID. 2013. The resilience agenda: Measuring resilience in USAID. Washington, DC: USAID.

https://www.usaid.gov/sites/default/files/documents/1866/Technical%20Note_Measuring%20Resilience%20in%20USAID_June%202013.pdf

Key findings

SHOCKS AND COPING STRATEGIES

On average, sample households experienced three shocks in the last year. The most frequent shock was variable rain/drought, affecting over half the overall sample and nearly 9 out of 10 households in the CRS project area.



Other top shocks to the overall sample include increasing food prices, excessive rains/flooding, hail/frost, and delay in PSNP food assistance. Shocks that affected more than one-third of respondents in a single program area are variable rain/drought and increasing food prices (CRS, Food for the Hungry, and World Vision) and excessive rains/flooding (Food for the Hungry).

The main strategies used to cope with these shocks are selling livestock, reducing food consumption (quantity per meal or number of meals/day), starting new/additional work (casual labor, wage labor), and receiving emergency food aid from the government or a non-governmental organization. At least one out of five households turned to one or more of these coping strategies.

RESILIENCE CAPACITIES

This study measures resilience in terms of three capacities. Each capacity is expressed as an index comprised of household- and community-level indicators and ranging from 0 (lowest capacity) to 100 (highest). **Absorptive capacity** refers to households' ability to minimize exposure to shocks through preventive measures and appropriate coping strategies. The mean absorptive capacity index value across the four project areas is 29.3; the REST program area has the highest value (35.1) across all areas.

Adaptive capacity measures households' ability to make proactive and informed choices about alternative livelihood strategies based on an understanding of changing conditions. The mean adaptive capacity index score across the four project areas is 42.1; again, REST has the highest value (50.1).

Transformative capacity reflects governance mechanisms, policies, infrastructure, community networks, and formal and informal social protections that enable systemic change. The mean value for the transformative capacity index overall is 67.7, with little variation across project areas.

WHICH RESILIENCE CAPACITIES ARE ASSOCIATED WITH POSITIVE WELL-BEING OUTCOMES, INCLUDING EXPENDITURES, POVERTY, DIETARY DIVERSITY, AND RECOVERY FROM SHOCK?

All three capacities—absorptive, adaptive, and transformative—are significantly associated with all four well-being outcomes in the anticipated direction, even when controlling for different degrees of shock exposure (see table below). High levels of resilience are linked with improved well-being, including:

- increased expenditures
- lower prevalence of poverty
- greater dietary diversity
- better chance of recovery from shocks

Relationship between resilience capacity and well-being outcomes						
Outcome	Absorptive		Adaptive		Transformative	
	Coef.	% change	Coef.	% change	Coef.	% change
Expenditure	0.018***	20.8	0.021***	27.2	0.011***	11.9
Poverty	-0.023***	-18.5	-0.028***	-22.9	-0.013***	-10.9
HDSDS >= 5	0.019***	26.6	0.024***	37.5	0.016***	19.8
Recovery	0.021***	19.3	0.023***	22.1	0.008***	7.0

Note: Asterisks represent statistical significance at the 0.01 (***), 0.05 (**), and 0.10 (*) levels.
 “% change” represents the percent change from the lowest to highest quartile (25th to 75th percentile) of the sample for indicators measured as continuous variables (absorptive, adaptive, transformative).

WHICH RESILIENCE CAPACITY INDICATORS DRIVE POSITIVE WELL-BEING OUTCOMES?

Households with greater resilience capacity are 7-22 percent more likely to recover than those with low resilience capacity. Absorptive and adaptive capacities account for the largest improvements. Regression results provide evidence that **all four well-being outcomes** can be improved through three significant resilience index components: access to cash savings, livestock assets, and aspirations/confidence to adapt.

Additional components that directly increase **expenditures** include access to remittances, human capital (education/training), and availability of markets and infrastructure.

A reduction in **poverty** is predicted by increases in access to remittances, productive and durable assets, human capital (education/training), availability of markets and infrastructure, and access to basic services.

Improvements in **dietary diversity** are driven—in addition to the three components mentioned above—by increases in shock preparedness and mitigation, human capital (education/training), exposure to information, and access to basic services and infrastructure.

Finally, components that directly contribute to the great likelihood of **recovery** include increases in access to remittances, shock preparedness and mitigation, bridging social capital, exposure to information, local government responsiveness, gender, and participation in local decision making.

DOES RESILIENCE CAPACITY DETERMINE THE COPING STRATEGIES HOUSEHOLDS ARE LIKELY TO ADOPT?

The study found that wealthier households are more likely than poorer ones to use positive coping strategies such as using money from savings (32 percent more likely), and remittances (21 percent) and selling livestock (9 percent). Poorer households adopt more negative coping mechanisms due to limited access to resources available for managing shocks. They are 25 percent more likely than wealthier



households to reduce child-related expenses, 15-22 percent more likely to borrow from friends or family within or outside the community, and 11 percent more likely to reduce food consumption.

Households with higher levels of resilience capacity are more likely to use money from savings and receive remittances. Those with higher absorptive and adaptive capacity are less likely to reduce child-related expenses.

Implications for Programming

The results from the analysis of resilience and household recovery point to important conclusions regarding programming to enhance resilience. First, traditional **economic development interventions** to improve household income also enhance household and community resilience capacities. These include interventions to increase agricultural/livestock productivity, diversify livelihoods, provide education and training, and invest in value chains or infrastructure.

Access to **savings** is associated with household economic status and dietary diversity, suggesting the importance of supporting savings and loans groups and mechanisms to promote savings by individuals and other organizations.

In addition, the results point to the importance of intervention strategies that promote **social capital** formation, for example through savings and loans groups and other community-based or collective organizations. Other possible programming strategies include investments and interventions that work with youth to build and enhance aspirations and confidence to adapt.

Investments to support **shock preparedness and mitigation** plans are positively associated with both food security (dietary diversity) and households' ability to recover from shocks. Recovery from shocks can be supported by exposure to information and provision of formal safety nets.

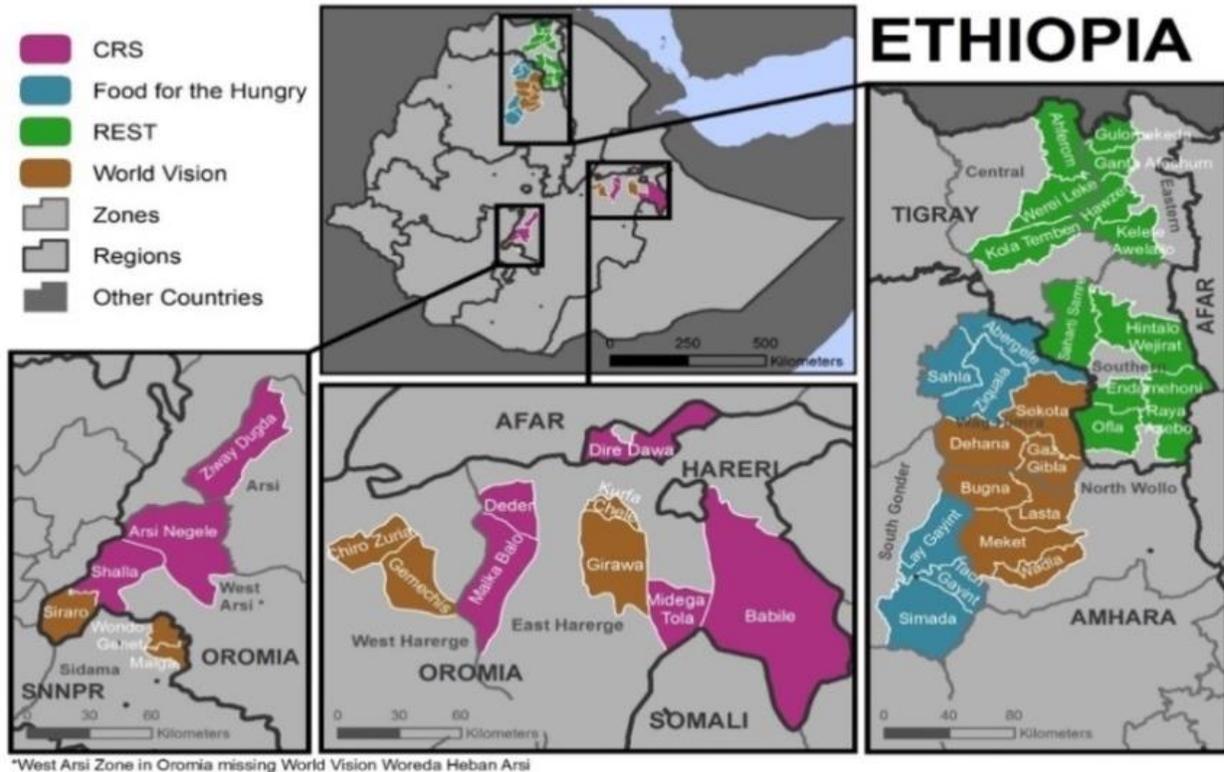
Background Information

The baseline study for the four Ethiopia DFSAs was prepared by the Evaluation and Learning Mechanism (EVELYN) Task Force and Mendez England & Associates, and funded by the USAID Office of Food for Peace. It examines factors that can provide an evidence base for improving resilience programming across the four project areas. The FFP-funded DFSAs in Ethiopia are implemented by four main partners:

1. The **Ethiopian Livelihoods & Resilience Project (ELRP)** is implemented in the Oromia region and Dire Dawa Administrative Unit by CRS and partners
2. The **Targeted Response for Agriculture, Income, and Nutrition (TRAIN)** Project in the Amhara region is implemented by Food for the Hungry and partners
3. The **DFSA** in Tigray is implemented by Ethiopia/Relief Society of Tigray (REST) and partners
4. **Strengthen Productive Safety Net Programme – fourth round (PSNP4)** Institutions and Resilience Project is implemented in Oromia and Amhara by World Vision and partners

The four DFSAs share similar goals that support the FFP Food Security Strategy in Ethiopia and programs implemented by the Government of Ethiopia under PSNP4. Programming includes institutional strengthening of PSNP4, local governments, and communities; and increasing agricultural productivity, income, and nutritional status.

DFSA Project Implementation Areas



SURVEYS AND ANALYSIS

The data for this study come from the baseline survey, conducted by Kimetrica LLC, which included a representative population-based survey of 8,460 households.³ The sample was selected using a multistage clustered sampling design to provide a statistically representative sample of the four DFSA project areas.

³ USAID. 2018. Final Report: Baseline Study of Food for Peace Development Food Security Activities (DFSA) in Ethiopia. Report by ME&A