

FOOD SYSTEMS RESILIENCE MEASUREMENT TOOL

OVERVIEW OF A FRAMEWORK BUILT FOR FOOD SYSTEMS MONITORING IN ETHIOPIA

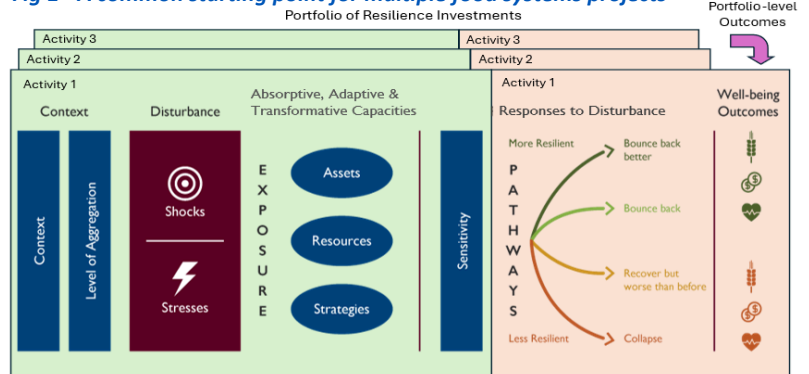
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Over the course of two years, from 2023 to 2024, LINC worked with TANGO International to develop a Food Systems Resilience Measurement Tool in Ethiopia. The tool was developed with funding from USAID under the Resilience Learning Activity (RLA). It was designed to assist USAID, the Government of Ethiopia, and other stakeholders to monitor and understand the combined effects of food aid programming across multiple projects and geographies (e.g. highlands vs. lowlands). Furthermore, the tool recognizes the diverse nature of food aid projects. While some projects may be focused on emergency response, others may be focused on particular sectors, markets, or populations. This tool is pioneering in its ability to account for these differences in focus, and unite them into a common measurement and monitoring framework. This document contains a summary and overview of the tool, its components, and intended applications. More information on this tool is available upon request.

A COMMON STARTING POINT - SHOCKS, CAPACITIES, RESPONSES, AND OUTCOMES

All emergency response and food systems resilience project measurement efforts are first boiled down to a commonly accepted framework that we utilize as a starting point. To understand the impacts of any food aid intervention, we must first understand the extent to which concerned populations are exposed to various disturbances, the context in which they are operating, and the capacities they possess to cope with them. **Disturbances** are generally referred to as shocks and stresses. They can be natural or man-made, external or internal, protracted or one-off. Examples can be as obvious as an earthquake or famine; or as benign as poor diet or primitive farming techniques.

Fig 1 - A common starting point for multiple food systems projects



We then turn to capacities, which can take a variety of forms in terms of both material assets and behavioral qualities, or coping strategies. These are generally divided into **absorptive, adaptive, and transformative capacities**. Absorptive capacity is the ability to minimize exposure to hazards and disasters and to recover quickly when exposed. Adaptive capacity is the ability to make proactive and informed decisions based on changing and uncertain conditions. Transformative capacity is reflected in the wider, system-level factors that enable more lasting resilience, such as governance mechanisms, markets, policies/regulations, infrastructure, community networks, cultural/gender norms, and formal safety nets. As part of this analysis, we are better able to understand a given population's **sensitivity** to a particular shock. Extending from this, the framework identifies several different food systems **resilience pathways** for dealing with various shocks and stresses, in some cases making them more resilient and in other cases leaving them less resilient to disturbances in the food system, and thus resulting in particular outcomes. All food systems resilience-building projects with which we are familiar can be aggregated up (and ideally, coordinated) from this basic starting point. Fig. 1 illustrates.



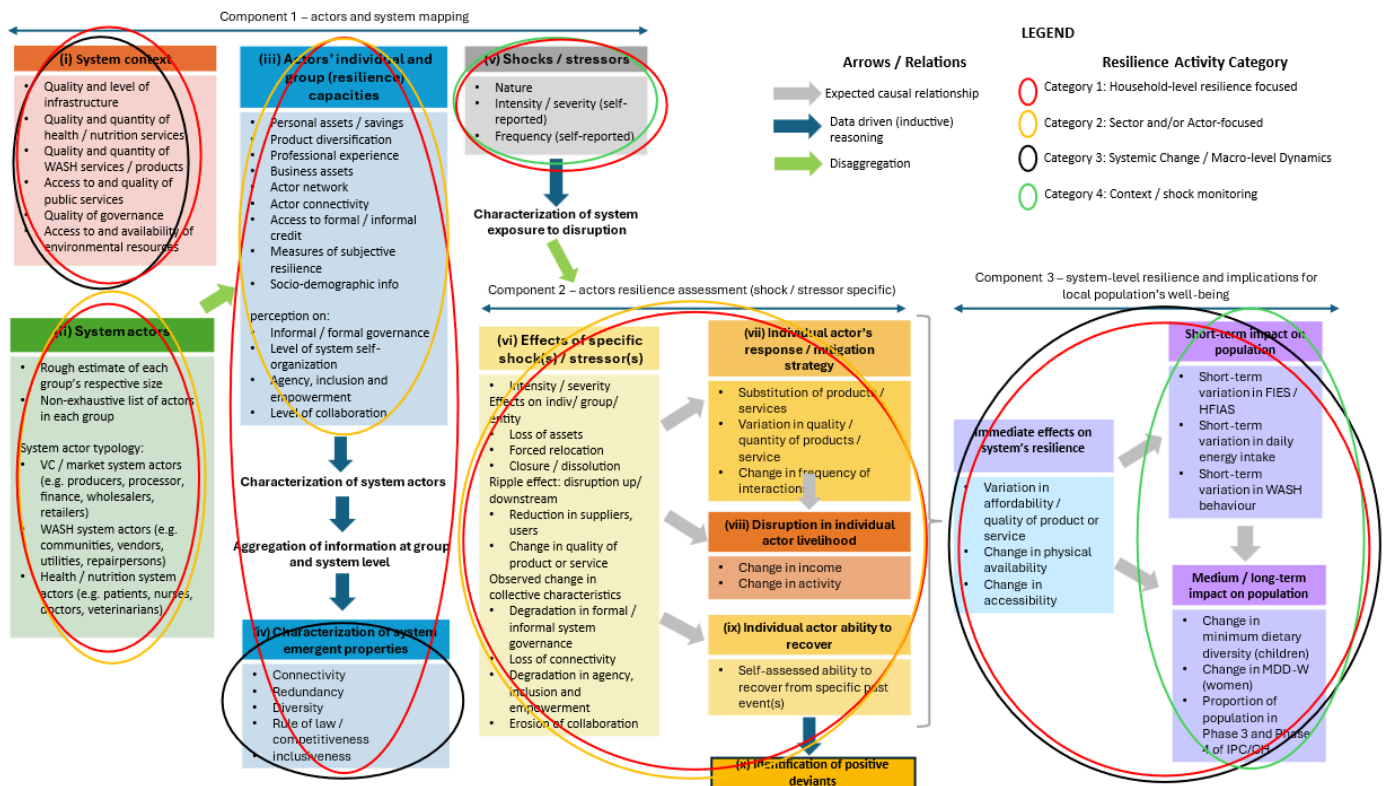
Photos courtesy of Resilience Learning Activity.

CATEGORIZATION OF ETHIOPIA’S FOOD SYSTEMS RESILIENCE PROJECTS

Our tool categorizes food systems resilience projects into four categories, each of which have their own particular objectives and beneficiaries, but can still be conceived (and indeed monitored and coordinated) as part of a larger portfolio. This part of our effort borrows from, and builds upon, the work of C. Bene in “Food system resilience measurement: principles, framework and caveats”. We overlay the Bene framework with these four project types, all of which contribute various indicators and insights to our overall understanding of food system resilience. As illustrated in Fig. 2 below, there are four categories of interventions that the tool accounts for, and our tool has specifically grouped multiple ongoing projects in Ethiopia, some of which are continuing well into 2025, such as JEOP and multiple RFSAs. Note that these four categories are not mutually exclusive, meaning that one project can fall into multiple categories. As such, the four project categories are:

- **Type 1 – Household-focused (includes JEOP, RFSAs):** These activities are all able to measure key aspects of household / actor-level resilience as they are the most resilience-focused activities in the portfolio, and all have targeted resilience-building interventions to specific vulnerable groups. For resilience analyses that require pre / post-shock panel data, these activities will be the source of most of the portfolio data.
- **Type 2 – Sector / Actor-focused (includes ETA):** These activities tend to be focused on particular groups of actors (e.g., farmers, youth, businesses) or a sector / area of work (e.g., WASH, agriculture, etc.). As such, they develop intimate knowledge of actors and sectors, but have more limited systemic perspective and typically are not organized at a geographic level or work directly with households. They are thus able to provide rich insight for actor mapping, but are more limited beyond that.

Fig 2 - Food systems measurement framework and the four categories of contributing projects



- **Type 3 – Systemic / Macro-level:** These activities are oriented toward a systemic or macro-level, making them well situated for contextual analysis and systems analysis. They have more limited insights at the ground level and typically do not work directly with households. Systemic insights gained from these projects can help to complete the broader picture for building more resilient systems, lending color and insight to the more actor-centric analyses being undertaken by other types of activities.
- **Type 4 – Context and Shock Monitoring (includes JEOP, HEA-U, RLA, FEWS NET):** These activities are typically already spending some or all of their time monitoring shocks and stresses, particularly activities such as HEA-U and JEOP. As well, activities such as RLA have a mandate for collecting such information and could be employed to undertake a more systematic approach to context and shock monitoring to provide more analytical consistency across the portfolio. USAID itself also used to collect (or track) some of this data, but we do not believe this is still the case.

INDICATORS FOR MONITORING AND EVALUATION

Our tool deliberately accommodates the utilization of multiple different monitoring and evaluation methods, depending upon project type, resources available, and elements of the framework being measured. In addition to the example indicators included in the Figure 2 diagram, **our tool includes a complete inventory of food systems resilience projects in Ethiopia, the indicators and methods that they are presently using, and a proposed matrix of more than 100 indicators** that we suggest to be utilized. To make the effort more manageable, indicators are prioritized and broken down by those that contribute to better understanding the specific elements of our framework (e.g. shocks / stresses, capacities, outcomes). The tool recommends different indicators for each of the four typologies of projects, as is illustrated in Fig.3 below.

Fig 3 - Illustrative snippet from detailed indicator matrix

Type I: Household Focused					
Type I Activities: Household-focused (7): PRESERVE (RFSA), Ifaa (RFSA), SPIR II (RFSA), RIPA-N, RIPA-S, Highlands Resilience Activity (HRA), CR-WASH					
Resilience Activity	Indicators Based on Resilience Dimensions				
	Shocks & Stressors	Resilience Capacities / Resources & Responses			Well-being Outcomes
		Household Level	Comm. / System Level	Responses	Well-being
Core Indicators	Shocks and stressors module (objective & subjective data) Shock severity index	% HHs w/ access to cash savings % HHs w/ access to financial services Social capital index	Availability of DRM plans % HHs w/ access to markets (distance, type, presence) Availability of infrastructure	rCSI	HFIAS % HHs w/ moderate & severe FIES Income (e.g., Daily per capita expenditures) Prevalence of poverty

EXPLORE MORE

To learn more about the Resilience Learning Activity, please visit our [project page](#). To request more information about the Food Systems Resilience Measurement tool, please contact Patrick Sommerville: psommerville@linclocal.org

ABOUT THE AUTHORS

The Food Systems Resilience Measurement Tool was finalized in 2024 under RLA as a collaboration between TANGO International and LINC. Contributors to the tool include Tim Frankenberger, Suzanne Nelson, Mark Conostas, and Patrick Sommerville. This summary document was written by Patrick Sommerville, Managing Partner at LINC.