

RESILIENCE AND RESILIENCE CAPACITIES MEASUREMENT OPTIONS

Light, Intermediate, and Full approaches for measuring household and community resilience and resilience capacities

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About the Resilience Evaluation, Analysis and Learning (REAL) Associate Award:

REAL is a consortium-led effort funded by the USAID Center for Resilience. It was established to respond to growing demand among USAID Missions, host governments, implementing organizations, and other key stakeholders for rigorous, yet practical, monitoring, evaluation, strategic analysis, and capacity building support. Led by Save the Children, REAL draws on the expertise of its partners: Food for the Hungry, Mercy Corps, and TANGO International.

Contact information:

The REAL Associate Award
c/o Save the Children
899 North Capital Street NE, Suite #900
Washington, D.C. 20002
Email: mpersson@savechildren.org
Website: <https://www.fsnnetwork.org/REAL>

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Back Cover Photo Credit:

Karyn Fox, TANGO International

Prepared by:



TANGO International
376 S Stone Ave., Tucson, AZ 85701, USA
+1 (520) 617-0977
<http://tangointernational.com/>

ACRONYMS

BFS	Bureau for Food Security
DHS	Demographic and Health Survey
DRM/DRR	Disaster Risk Management/Disaster Risk Reduction
EW	Early Warning
EWS	Early Warning System
FFP	Food for Peace
FIES	Food Insecurity Experience Scale
FTF	Feed the Future
GIS	Geographic Information Systems
HFIAS	Household Food Insecurity Access Scale
HH	Household
PRIME	Pastoralist Areas Resilience Improvement through Market Expansion
REAL	Resilience Evaluation, Analysis, and Learning
RMS	Recurrent Monitoring System
WEAI	Women's Empowerment in Agriculture Index

USAID RESILIENCE AND RESILIENCE CAPACITIES MEASUREMENT OPTIONS

GOAL: Promote consistent and context-specific measurement of resilience and resilience capacities as part of the monitoring and evaluation of USAID-funded food security activities to ensure effective resilience programming and continuous improvement based on evidence.

OPTIONS OVERVIEW

The **Resilience and Resilience Capacities Measurement Options** present three measurement approaches for analyzing resilience: Light, Intermediate, and Full, each of which reflects a different level of effort—and budget—in terms of the survey instrument and analysis used. This document is one of five intended to be used together for analyzing resilience in relevant USAID activities.



DATA COLLECTION TOOLS



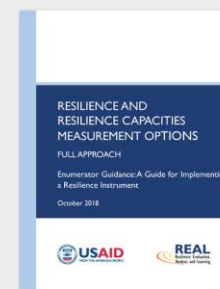
Household and Community Questionnaires list all the survey questions that should be used to measure resilience capacities and components. Questions should be adjusted to reflect local terminology and context.

TECHNICAL GUIDANCE



The **Methodological Guide** provides detailed guidance on which questions in the questionnaires measure the selected resilience components and capacities.

It also shows **how to calculate** individual components of resilience, the three resilience capacity indices, and an overall household resilience capacity index.



An **Enumerator Guide** gives specific instructions to the interviewer for each question in the household and community questionnaires.



INTRODUCTION

Over the past five years, the commitment by various donors and development agencies to support resilience-building initiatives in relation to their humanitarian and/or development agenda has been impressive. USAID is acknowledged as a leader in this effort. Recognizing the extreme importance of this focus, USAID has incorporated resilience into its strategic objective in its global food security strategy. Given the range of USAID programs trying to capture changes in resilience promoted through their investments, there is a need for measurement options that better reflect the goals and available resources of these different programs.

This guidance¹ presents several measurement approaches for analyzing resilience (i.e., Light, Intermediate, and Full), each of which reflects a different level of effort—and budget—in terms of the survey instrument and analysis used (i.e., number of questions asked and analyzed). For USAID resilience focus countries, using the Full approach (i.e., all questions in the resilience instrument) is ideal. For programs in countries that are not resilience focus countries, a “lighter touch” to measuring resilience (i.e., Light approach) may be appropriate as it uses a small subsample of questions from the resilience instrument. For programs in countries that are promoting resilience but are not resilience focus countries, an approach to measuring resilience that falls somewhere between a Light and Full approach may be most appropriate (i.e., Intermediate approach).

Table I compares the individual components of resilience capacity measured in the three approaches. Missions using Light or Intermediate approaches can also include other resilience capacity components from the Full approach, if deemed appropriate in the given context.

This document is one of five resources intended to be used together for measuring and analyzing resilience in relevant Food for Peace (FFP) or Feed the Future (FTF) activities. The full set of guidance documents includes:

- Resilience and Resilience Capacities Measurement Options (this document)
- Household questionnaire
- Community questionnaire
- Enumerator guidance (for both questionnaires)
- Methodological guidance on calculating individual components of resilience, the three resilience capacity indices (absorptive, adaptive, and transformative capacities), and an overall household resilience capacity index.

¹ Please note that this is a living document that will be continually edited and updated. Visit <http://www.fsnnetwork.org/REAL> for the current version.

Together, the household and community questionnaires comprise the resilience instrument. This guidance assumes both are implemented. All documents are formulated around the Full approach, which represents the complete “menu” of possible questions, responses, and analyses. The Light and Intermediate approaches involve subsets of this full set of possible indicators/questions.

Table I indicates the individual components of resilience capacity to be collected for each of the three approaches, along with their source and level of collection, and estimated times needed to collect data for that component. Times are derived from the averages of previous resilience data collections throughout Africa and Asia. Elements of the resilience capacity components—as well as responses—used in the measurement options table presented below should be adapted to the local context, with the final resilience instrument reflecting context-specific programming and goals, as well as contextualized language and terminology. For example, the list of assets used for the “Asset Ownership” component should include the types of assets found within the programming context and should reflect local terminology for those assets. Contextualization **should not** involve deleting questions, which may impact analysis.

As a complement to the measurement options table below, comprehensive methodological details that describe how each resilience component is calculated are presented in the methodological guidance document, *Resilience Methodological Guide: Full Approach. A Guide for Calculating Resilience Capacity*. This guide identifies the questionnaire (e.g., household, community, FFP), and specific questions and responses required for each component of resilience capacity, as well as instructions of how each is calculated. For example, using Table I to identify the relevant components for either the Light or Intermediate approach, users can then use the companion *Methodological Guide* to identify which questions are required to calculate each component, and simply eliminate from the household and community questionnaires those questions not used in analysis. The enumerator guidance can be similarly altered to reflect only those questions required, whether for the Light or Intermediate approach. Additional guidance on resilience measurement is available through the Resilience Evaluation, Analysis, and Learning (REAL) consortium.²

Table I lists the individual measurement components used to calculate the resilience and resilience capacity indices used in resilience analysis. Although this analysis focuses on the relationship between the three resilience capacities, response, and well-being outcomes such as food security, other resilience analyses may be applicable, such as using recovery or other well-being outcomes (e.g., poverty) as a dependent variable.

² <http://www.fsnnetwork.org/REAL>

Table I. Resilience/resilience capacity measurement components and minimum requirements for the three approaches

Resilience/Resilience Capacity Measurement Component ³	Minimum Requirements			Source/Level	Notes	Estimated Time to Collect ⁵
	Light	Int. ⁴	Full			
Bonding Social Capital	X	X	X	Resilience instrument; HH	Resilience capacity. Perceptions of ability to get or give help within the village.	2.5 minutes
Bridging Social Capital	X	X	X	Resilience instrument; HH	Resilience capacity. Perceptions of ability to get or give help outside of the village.	2.5 minutes
Linking Social Capital			X	Resilience instrument; HH	Resilience capacity. HHs with links to potential resources; proxy for “power” to get help for HH or village.	2 minutes
Social Network Index			X	Resilience instrument; HH, community	Resilience capacity. Captures group exchange and connections for opportunities/ information through broader social connections. May want to couple this index with a social network/systems mapping analysis.	2.5 minutes HH; 2.5 minutes community
Collective Action			X	Resilience instrument; HH	Resilience capacity. Activities that benefit the community.	1.5 minutes
Social Cohesion			X	Resilience instrument; community	Resilience capacity. Captures community social networks based on common values/ interest, social relations, etc.	1.5 minutes

³ Components are derived from one or more questions in the household and/or community questionnaires and are not necessarily reflected in any one specific module, i.e., labels do not necessarily match between the component and questionnaire module. See *Resilience Methodological Guide: Full Approach. A Guide for Calculating Resilience Capacities and Indices*.

⁴ The Intermediate Approach includes three distinct versions based on slightly different designs. See Table 3.

⁵ For components involving data collected from more than one source, estimates of time are presented for data collected from the resilience instrument only, unless otherwise stated. Estimates are derived from averages of previous surveys.

Resilience/Resilience Capacity Measurement Component ³	Minimum Requirements			Source/Level	Notes	Estimated Time to Collect ⁵
	Light	Int. ⁴	Full			
Local Government Responsiveness	X	X	X	Resilience instrument; community	Resilience capacity. Perceptions of the government's ability to meet HHHs' needs.	2 minutes
Participation in Local Decision-Making			X	Resilience instrument; HH	Resilience capacity. Level of participation in decision making within various community-based groups	Captured in questions re: groups (see HH social network index)
Availability of Informal Safety Nets		X	X	Resilience instrument; community	Resilience capacity. Distinguished from social capital; measures availability; "access" is currently captured as a response (in the Shock Exposure module) rather than a capacity .	Captured in questions re: groups (see comm. social network index)
Access to Cash Savings	X	X	X	WEAI; FFP questionnaire; Resilience instrument; HH	Resilience capacity. Access resulting from someone in HH regularly saving cash; availability captured in access to financial services (see below)	2 minutes HH; 1 minute community
Availability of / Access to Insurance		X	X	WEAI; Resilience instrument; HH, community	Resilience capacity. Crop, livestock, health, other (resilience); agricultural (FFP); access/use as well as availability	30 seconds HH; 30 seconds community
Asset Ownership	X	X	X	Resilience instrument; FFP questionnaire; Asset index data	Resilience capacity. Ownership of key contextual assets; measurement based on DHS Asset Index. Explore progress out of poverty approach (HH)	10 minutes

Resilience/Resilience Capacity Measurement Component ³	Minimum Requirements			Source/Level	Notes	Estimated Time to Collect ⁵
	Light	Int. ⁴	Full			
Shock Preparedness and Mitigation			X	Resilience instrument; HH, community	Resilience capacity. Includes availability of DRM/DRR plan, but also availability of livestock off-take, engaging in (i.e., use of) certain collective actions and preventive activities	Part of questions re: collective action; part of questions re: formal safety nets (HH, comm)
Aspirations			X	Resilience instrument; HH	Resilience capacity. What people aspire to achieve/ obtain; (Individual perceptions of respondent used as proxy for HH)	3 minutes
Locus of Control (or Self-Efficacy)			X	Resilience instrument; HH	Resilience capacity. Perceived control over one's life; (Individual perceptions of respondent used as proxy for HH)	2 minutes
Confidence to Adapt			X	Resilience instrument; HH	Resilience capacity. Empowerment; motivation; (Individual perceptions of respondent used as proxy for HH)	2 minutes
Exposure to Information			X	Resilience instrument; HH	Resilience capacity. Lists specific types (market prices, climate change information, livestock, etc.)	5 minutes
Education / Training	X	X	X	FFP household roster (Ind); resilience instrument; HH	Resilience capacity. Maximum education, literacy, numeracy, financial, skills/ vocational training, NRM training, EW training, etc.	2 minutes
Human Capital (alternative to Education/ Training)	FFP		BFS	FFP household roster (Ind); resilience instrument; HH	Resilience capacity. Uses Education/Training element plus four questions re: antenatal care and family planning (Module 17A).	3 minutes

Resilience/Resilience Capacity Measurement Component ³	Minimum Requirements			Source/Level	Notes	Estimated Time to Collect ⁵
	Light	Int. ⁴	Full			
Livelihood Diversification		X	X	Resilience instrument; HH	Resilience capacity. Diversification into different risk profiles, not just livelihood strategy count; includes ag/non-ag categories and adoption of improved practices	3 minutes
Adoption of Improved Practices			X	FFP questionnaire	Resilience capacity. Uses project-defined minimum number of project-defined improved practices/ technologies.	2 minutes
Availability of Financial Services	X	X	X	Resilience instrument; community	Resilience capacity. Availability of institutions for borrowing or saving. HH use of a loan/ savings to deal with a specific shock is captured as a coping strategy in the Shock Exposure module.	30 seconds
Availability of / Access to Formal Safety Nets	X	X	X	Resilience instrument; HH, community	Resilience capacity. Types of formal safety nets in community (availability); HH access (e.g., unconditional food/cash transfers)	1 minute HH; 1 minute community
Availability of / Access to Humanitarian Assistance	X	X	X	Resilience instrument; HH	Resilience capacity. Cash, food, or both (in the face of a specific shock/stressor); HH access as well as availability in community	Part of questions re: shock exposure
Availability of Markets			X	Resilience instrument; community; GIS data	Resilience capacity. Availability of different types of markets (distance to market)	1 minute
Availability of / Access to Infrastructure			X	Resilience instrument; community; FFP questionnaire; GIS data	Resilience capacity. Availability of different types of infrastructure; HH access implied by availability	2 minutes

Resilience/Resilience Capacity Measurement Component ³	Minimum Requirements			Source/Level	Notes	Estimated Time to Collect ⁵
	Light	Int. ⁴	Full			
Availability of / Access to Basic Services			X	Resilience instrument; community	Resilience capacity. Availability, HH access, and quality	3 minutes
Availability of / Access to Livestock Services			X	Resilience instrument; community	Resilience capacity. Availability, HH access, and quality	2 minutes
Availability of / Access to Ag Extension Services			X	Resilience instrument; community	Resilience capacity. Availability, HH access, and quality	2 minutes
Availability of / Access to Communal Natural Resources			X	Resilience instrument; community	Resilience capacity. Availability of different types of natural resources communally “owned” in the village; HH access implied by availability	2.5 minutes
Access to Remittances			X	Resilience instrument; HH	Resilience capacity. Access in terms of HH receipt of remittances; migration within/outside country; who is migrating; permanent/temporary	3 minutes
Women’s Empowerment	X	X	X	WEAI (Individual; fe/male)	Resilience capacity.	1 adult ~ 30 minutes; 2 adults ~ 1 hour
Gender / Gender Decision-Making Indices (<i>alternatives to Women’s Empowerment</i>)			X	Resilience instrument; HH, community	Resilience capacity. HH and community perceptions regarding gender norms and HH decision-making; use one or both instead of WEAI	2 minutes HH; 1 minute community;
Coping Strategies Index (CSI)			X	Resilience instrument; HH	Behavioral responses to food insecurity	2 minutes
<i>HH Perceived Ability to Recover from Shocks–HH</i>	X	X	X	Resilience instrument; HH	Subjective resilience indicator. Across all shocks experienced by HH	30 seconds

Resilience/Resilience Capacity Measurement Component ³	Minimum Requirements			Source/Level	Notes	Estimated Time to Collect ⁵
	Light	Int. ⁴	Full			
<i>HH Perceived Ability to Recover from Shocks–RMS</i>		X	X	RMS	Subjective resilience indicator. Recovery per each shock experienced by HH	30 seconds
<i>Shock Exposure Index</i>	X	X	X	Resilience instrument; HH; satellite imagery; EWS	Listing all shocks and stresses; measures of perceptions-based exposure; other data provide objective measure of exposure (recorded rainfall/ deviations from norm); captures both exposure and severity. The index also captures coping strategies/ responses.	10 minutes
<i>Depth of Poverty</i>	X	X	X	FFP questionnaire; Consumption expenditures data	Well-being indicator. Working on a depth of asset poverty indicator as well.	45 minutes
<i>Wasting</i>	X	X	X	FFP questionnaire	Well-being indicator. Child anthropometric data.	10 minutes per child
<i>FIES</i>	X	X	X	FFP questionnaire	Well-being indicator. 30-day recall	3 minutes
<i>HFIAS - RMS only</i>		X	X	RMS	Well-being indicator. <i>(until/ unless FIES 30-day recall sensitivity confirmed)</i>	5 minutes
<i>HDDS</i>	X	X	X	FFP questionnaire	Well-being indicator. 24-hour recall.	2 minutes

The total time required for the Full approach is approximately 2 hours, depending on skips in the questionnaires. The Ethiopia PRIME baseline was between 2 and 2.5 hours for each questionnaire. This estimate does not include the WEAI, depth of poverty or wasting indicators. If the WEAI module is added, the questionnaire will take an additional 45 min to 1 hour, depending on whether both males and females are interviewed. The single largest amount of time required to collect data, other than the WEAI, is related to the HH expenditure questions. Alternative poverty measures should be explored to reduce the length of the questionnaire.

Table 2 shows the resilience capacity components for the absorptive, adaptive, and transformative capacity indices. Questions from both the household and community questionnaires are used to calculate the three indices.

Table 2. Composition of the resilience indices

Absorptive Capacity Index	Adaptive Capacity Index	Transformative Capacity Index
<ul style="list-style-type: none"> • Availability of informal safety nets • Bonding social capital • Access to cash savings • Access to remittances • Asset ownership • Shock preparedness and mitigation • Availability of/access to insurance • Availability of/access to humanitarian assistance 	<ul style="list-style-type: none"> • Bridging social capital • Linking social capital • Social networking index • Human capital OR Education/training • Livelihood diversification • Adoption of improved practices • Exposure to information • Asset ownership • Availability of financial resources • Aspirations • Locus of control • Confidence to adapt 	<ul style="list-style-type: none"> • Availability of/access to formal safety nets • Availability of markets • Availability of/access to communal natural resources • Availability of/access to basic services • Availability of/access to infrastructure • Availability of/access to agricultural services • Availability of/access to livestock services • Bridging social capital • Linking social capital • Collective action • Social cohesion • Gender equitable decision-making index • Participation in local decision-making • Local government responsiveness • Gender index

Table 3 compares the design and analysis characteristics, such as the type of surveys required, methodology, type of data collected, and type of analysis associated with each resilience measurement option. Generally, it should be assumed that the more elements involved (e.g., baseline, interim, and endline surveys), the higher the costs.

Table 3 also provides some suggestion of the amount of effort that will be required by partners in terms of logistical support. Thus, implementing the Light approach is likely to require fewer resources—both in terms of time and dollars—than the Full approach.

Table 3. Protocol considerations for the Light, Intermediate and Full Approaches.

	Light	Int. 1	Int. 2	Int. 3	Full
Design					
Baseline	X	X	X		X
Interim		X			X
Recurrent Monitoring System (RMS) ⁶			X	X	X
Endline	X	X	X		X
Quantitative only	X				
Qualitative only					
Mixed methods		X	X	X	X
Cross-sectional	X	X	X	X	
Panel data		X	X	X	X
Stratification (intervention intensity)					X
Analysis					
Multivariate analysis†	X	X	X	X	X
Positive deviant analysis	X	X	X	X	X
RMS analysis			X	X	X
In-depth analysis of trends					X

† Shocks * Capacities --> Well-Being

⁶ RMS involves recurrent rounds of monitoring in order to capture real-time household and community responses to actual shocks that occur during program implementation. The RMS can be launched in Years 2 and 3, or after trigger indicators that are being monitored during program implementation reach some pre-determined “shock level”. More on recurrent monitoring can be found here: <http://www.fsnnetwork.org/overview-recurrent-monitoring-survey-rms>.



About the USAID Resilience and Resilience Capacities Measurement Options

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- Methodological Guide

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