

## THE RESILIENCE AGENDA: *Measuring Resilience in USAID*

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USAID 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. As this suggests, the concept of resilience and its measurement are complex.

### TOPLINE MEASURES FOR THE HORN OF AFRICA AND SAHEL

The Horn of Africa and Sahel Joint Planning Cells (JPCs) have agreed upon a limited set of indicators of resilience-related livelihood outcomes and impacts as summative measures of this complexity. These include<sup>1</sup>:

Reduction in Humanitarian Assistance Needs: Expressed as the number of people in need of humanitarian assistance, this indicator underscores the economic rationale for investing in resilience in places USAID routine spends tens, if not hundreds, of millions in responding to humanitarian crises every few years. It also carries with it a number of important caveats:

- *Normalization* - humanitarian assistance needs vary in relation to the severity of shocks. To control for this, this indicator will be normalized by severity of drought using the Normalized Difference Vegetation Index (NDVI), allowing future droughts (and their severity) to be translated into 2011 drought terms.
- *Needs determination* – the way humanitarian assistance needs are determined varies between countries and even within the same country over-time. Political factors may also influence HA needs estimates. Given this, this measure must be contextualized and triangulated with other topline indicators.

Depth of Poverty (DoP): DoP provides a contextual complement to Feed The Future's (FTF) poverty prevalence measure (not a substitute), allowing the full(er) impact of resilience efforts focused on chronically vulnerable populations and areas to be captured in poverty reduction terms. When calculating DoP, households above the poverty line are given a value of zero, making it a function of both the depth and prevalence of poverty.

Moderate to Severe Hunger (HHS): This required FTF economic resilience indicator is derived from the Household Hunger Scale and is expressed as the percentage of households experiencing moderate or severe hunger as indicated by a score of 2 or more on the scale. FEWSNET is also incorporating this indicator into its assessment analysis where it is available, forging an important link between assessment and program M&E.

Global Acute Malnutrition (GAM): As with DoP, GAM is a contextual complement to FTF's stunting measure (not a substitute) that reflects the distinct nutritional feature of the arid and dryland areas USAID has targeted in the Horn and Sahel – namely, persistently high GAM rates in the 15% to 20% range, even in good seasons and years. Targets will be set in relation to established, World Health Organization (WHO) crisis classification thresholds<sup>2</sup>.

### ADDITIONAL MEASURES AND CHALLENGES

Topline indicators are necessary for aggregating and articulating the impact of resilience investments in a concise and coherent way. However, they are insufficient to capture the holistic impact of these investments.

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<sup>1</sup> All 4 indicators can be derived from FTF/FFP baseline data or secondary data. No additional data are required.

<sup>2</sup> WHO (2003) Crisis Classification: acceptable < 5 % , Poor 5 – 9 % , Serious 10 – 14 % , Critical > = 15 %

**Multiple Domains:** Whether conceived of as dimensions or determinants, there is widespread recognition within and beyond USAID that there are multiple domains of resilience - each of which requires measurement for a holistic understanding of resilience and the impact of USAID resilience investments. To this end, USAID has adapted an earlier FAO (2008) resilience domain framework and identified a number of potential indicators under each domain (appendix 2). This framework makes use of existing indicators (and data) already collected in standard FFP/FTF baseline surveys, adding in a limited set of additional measures as necessary (see below).

**Measuring Capacities:** One key aspect of resilience that conceptually separates it from prior, like concepts is its explicit recognition of the instability (or non-equilibrium) dynamics associated with the recurrent crises that define priority areas and populations for USAID's resilience work. The *capacity to mitigate, adapt to and recover from shocks and stresses* or, put another way, to absorb and manage through these inherent instability dynamics, is thus central to the concept of resilience and how its measured, particularly when it is not being tested (i.e. non-shock seasons or years). Unsurprisingly, this is an area that requires additional measures.

USAID is piloting a resilience module in Kenya and Ethiopia that incorporates measures of these capacities. The module is informed by the measurement of resilience in social psychology and relies heavily on the self-perception of respondents. Retrospective questions in relation to past (reference) shocks are included, as are prospective questions about a household's capacity to absorb and manage through future shocks and stresses (see appendix 3). These survey methods will also be complemented by qualitative inquiry to better understand how people themselves conceive of (and bolster) their own mitigative, adaptive and recover capacities.

**Measuring Resilience at Community and Systems Levels:** As with capacities, the USAID definition explicitly identifies multiple units of analysis for resilience, including people, households, communities, countries and systems (social, ecological, economic). The most challenging of these from a measurement perspective are communities and systems, particular if approached as units of analysis in their own right, rather than simply aggregates of lower units, as the concept and definition of resilience demands. USAID will employ a mixed method approach that includes quality inquiry to measure resilience at these scales.

## LINKS TO REGIONAL AND GLOBAL PROCESSES

USAID remains actively engaged in measurement discussions with Global Alliance and AGIR partners and will help to facilitate a multi-donor, government led impact evaluation in Kenya being supported by the Global Alliance Technical Consortium in late summer/fall 2013. USAID is also helping to facilitate a broader discussion on resilience measurement through the Food Security Information Network (FSIN), including - recently (February 2013) - an Experts Expert Consultation on Resilience Measurement for Food Security <sup>3</sup>.

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<sup>3</sup> <http://agrilinks.org/library/summary-expert-consultation-resilience-measurement-food-security>

## APPENDIX 1 – Talking Points on Resilience Measurement

- USAID 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. As this definition suggests, the concept (and measurement) of resilience is complex and multi-dimensional.
- The Horn of Africa and Sahel Joint Planning Cells (JPCs) have agreed upon a limited set of topline measures for gauging the livelihood outcomes and impact of resilience investments in targeted geographies. These include <sup>4</sup>:
  - Reduction in humanitarian assistance (HA) needs
    - ◊ Normalized by severity of drought using a vegetation index to estimate severity
    - ◊ Caveat: the means through which HA needs are determined is inconsistent both between countries and within countries overtime
  - Depth of Poverty (DoP) – a contextual complement to FTF’s poverty prevalence measure
  - Moderate to Severe Hunger (HHS) – FTF economic resilience measure
  - Global Acute Malnutrition (GAM) – a contextual complement to FTF’s stunting measure
- Topline indicators are necessary for aggregating and articulating the impact of resilience investments in a concise and coherent way. However, they are insufficient to capture the holistic impact of these investments. The following are also required:
  - Measurement of the multiple dimensions of resilience, including
    - ◊ Income and food access, assets, adaptive capacity, social capital and safety nets, governance, nutrition and health, and the stability of these factors over time.
  - Measurement of mitigative, adaptive, and recovery capacities is particularly critical and will require additional/new indicators and mixed quantitative/qualitative approaches.
    - ◊ USAID is testing measures of these capacities in Kenya and Ethiopia
  - Measures of resilience at multiple scales/units of analysis, including communities and social, ecological and economic systems also requires mixed method approaches.
- USAID’s approach is informing and informed by our engagement with other stakeholders in the Global Alliance (Horn) and AGIR (Sahel) initiatives. USAID is also supporting and engaged with a broader effort to consolidate knowledge and efforts on resilience measurement through its support to an emergent community of practice via the Food Security Information Network.

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**Goal:** Increased resilience of chronically vulnerable populations

**Topline Measures**

- Humanitarian assistance needs normalized by severity of drought (NDVI)
- Mean Depth of poverty
- Prevalence of households with moderate or severe hunger (HHS)
- Prevalence of wasted children under 5 years of age (GAM)

Illustrative Measures by Objective and Domain of Resilience  
(stability over time domain embedded in other domains)

**Objective 1: Increased and Sustainable Economic Well Being**

- INCOME & FOOD ACCESS**
- Per capita expenditure (income proxy)
  - Poverty Prevalence
  - Stability of income (seasonal and trend)
  - # of individuals receiving training
  - # of jobs created

- ASSETS**
- Asset ownership (count and value)
  - Change in HH asset ownership
  - Number of communal assets created/ rehabilitated by type

- ADAPTIVE CAPACITY\***
- Income/livelihood diversity
  - Self-perceived coping/adaptive capacity
  - Access to Credit
  - Women's Empowerment in Ag Index
  - # adopting and applying new technologies/management practices:
    - people/HH
    - associations /enterprises
    - hectares

**Objective 2: Strengthened Institutions and Governance**

- SOCIAL CAPITAL & SAFETY NETS**
- Community and local organization/ groups participation and leadership
  - Ability to rely on others in times of stress (retrospective & prospective)
  - % of households with access to positive coping strategies (warantaga, habansa)

- GOVERNANCE**
- Government capacity for coordination: local and national (capacity assessment)
    - Effectiveness of local/national EWS (assessment)
  - # of effective laws governing natural resources (land tenure/rural code)
    - # of communities in which laws are effectively enforced
  - # of effective local governance structures in place by type:
    - Natural Resource Management
    - Conflict mitigation/management
    - Disaster Risk Management

**Objective 3: Improved Health and Nutrition Status**  
(MCH, Family Planning, WASH, nutrition)

- NUTRITION AND HEALTH**
- Prevalence of stunted/underweight children under 5 years of age
  - Prevalence of diarrhea among children under 5 years of age
  - Women's dietary diversity
  - % of children 8 to 23 months that received a minimum acceptable diet
  - % of HH with access to potable water
  - % of mothers practicing appropriate care/feeding practices
  - % of individuals/HH practicing appropriate WASH practices
  - % of men/women with positive knowledge and attitudes about:
    - birth spacing/family planning
    - child caring/feeding practices
    - WASH practices
    - use of health services

## APPENDIX 3 – Resilience Capacities Module (Kenya REGAL baseline survey)

Enumerator: Ask the following questions for all the activities on the table below:

**Q1.** Over the past 12 months, which of the following sources did your household use for food or income? (Indicate with ü in column a.)

**Q1a.** Rank these sources based on the proportion of food/income they provide for the household. (In column b, indicate 1 for the source that provided the most food/income in the last 12 months, 2 for the source that provides the second most food/income...and so on until the number of sources identified in Q1 is reached. Do this ranking also for times of stress).

**Q1b.** Which of these food/income sources are seasonal and which season? (indicate with D for dry season and W for wet season , or Y for year-round in column c).

**Q1c.** Which are sources that you only rely on during times of stress? (indicate with ü in column d)

A	a. Source (ü)	b. Rank (#)	c. Seasonality (W or D)	d. Stress (ü)
A. Farming/Crop production and sales				
B. Livestock production and sales				
C. Wage labor or salaried (local)				
D. Fishing				
L. Wild foods for household consumption				
E payment				
G. Other self-employment/own business				
H. Sale of land/other non-livestock assets				
I. Remittances				
J. Gifts/inheritance				
M. Borrowing				
N. Barter trade lief				
K. Relief				
F. Sale of wild/bush products(incl charcoal)				
O. Raiding				
P. Mining on public land				

**Q2.** During the last drought (August 2011), did you rely/lean on other households for financial or in-kind food support?

- a. Yes
- b. No

**Q2a.** If yes, which of the following types of households did you rely/lean on for money or food? (read to the respondent and mark all that apply)

- a. Relatives in my village/community
- b. Relatives outside my village/community
- c. Non-relative in my village/community
- d. Non-relatives outside my village/community
- e. Non-relatives outside of my tribe/ethnic group

**Q2b.** If yes, why do these households allow you to rely/lean on them for money or food support (do not read aloud and mark all that apply)?

- a. It is their obligation
- b. They lean/rely on my household when they need support
- c. Other (specify)

**Q2c.** Will you be able to rely/lean on these same or other households for money or food support during the next drought or during other times of need/stress in the future?

- a. Yes
- b. No

**Q3.** Which of the following statements best describes the extent to which you and your household have been able to recover from the last drought (2011)?

- a. Did not recover
- b. Recovered some, but worse off than before drought
- c. Recovered to same level as before drought
- d. Recovered and better off
- e. Not affected by drought

**Q4.** Which of the following statements best describes your household's ability to cope with and manage with future droughts or future periods of need/stress?

- a. Unable to cope
- b. Able to cope, with changes income and food sources
- c. Able to cope without difficulty

**Q5.** Which of the following statements do you most agree with?

- a. Each person is responsible for their own success/failure
- b. Each person's future is a matter of destiny

**Q3.** Over the 12 months, has your household changed income or food sources in order to cope with future periods of stress?'

**Q3a** If yes, what changes have you made?

- a. Changed income or food sources
- b. Added income or food sources
- c. Increased use of existing income or food sources
- d. Increased savings or other assets
- e. Migration of one or more household members
- f. Other
- g. Other
- h. Other

**Q1.** In the last 12 months, has your household sold livestock, land or other large belongings and property to meet household needs due a shock (drought/flood) or other household stress? (Do not include routine livestock sales).

- a. Yes
- b. No

**Q1a.** If yes, which of the following statements best describes the extent to which your household been able to recover/re-purchase those assets?

- a. Unable to recover/re-purchase
- b. Able to recover/re-purchase some of the productive assets sold
- c. Able to recover/re-purchase all or more than all of the productive assets sold

**Q2.** In the last 12 months, has your household sold small livestock, a phone, bicycle, or other small items to meet household needs due a shock or other household stress? (Do not include routine livestock sales)

- a. Yes
- b. No

**Q2a.** If yes, which of the following statements best describes the extent to which your household been able to replace or get those belongings and property back?

- a. Unable to get them back or replace
- b. Able to get some of them back
- c. Able to get back everything or more of household belongings and property.