The Asian Resilience Monitoring & Evaluation Experiential Learning Event is supported by USAID/RDMA and USAID's Center for Resilience and developed by TANGO International, Inc. as an associate of the Technical and Operational Performance Support (TOPS) program.

Asian Resilience Monitoring & Evaluation Experiential Learning Event

Module 1 - Curriculum

April 18 – 22, 2016

Disclaimer

This training curriculum is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of The TOPS Program and do not necessarily reflect the views of USAID or the United States Government.

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Acronyms

AFDM	African Flood and Drought Monitor
AOR	Agreement Officer's Representative, USAID
CCA	Climate change adaption
DDRC	District Disaster Relief Committee
DRM	Disaster risk management
DRR	Disaster risk reduction
FAO	Food and Agriculture Organisation, United Nations
FEWS NET	Famine Early Warning Systems Network
FGD	Focus group discussion
FSIN	Food Security Information Network
FTF	Feed the Future
HADA	Humanitarian to Development Resilience Collaboration Training for Field Practitioners
HH	Household
HHS	Household hunger scale
HIV/AIDS	Human immunodeficiency virus infection and acquired immune deficiency syndrome
IDS	Institute of Development Studies
ILO	International Labour Office
IE	Impact evaluation
IFPRI	International Food Policy Research Institute
IR	Intermediate Results
IRB	Institutional Review Board
KII	Key informant interview
M&E	Monitoring and Evaluation
NGO	Non-governmental organization
NRM	Natural resource management
OCHA	Office for the Coordination of Humanitarian Affairs, , United Nations
PAHAL	Promoting Agriculture, Health and Alternative Livelihoods project
PCA	Polychoric factor analysis
PLW	Pregnant and lactating women
PMP	performance monitoring plan
PMP	Performance monitoring plan
PPS	Proportional to size
PRIME	Ethiopia Pastoralist Areas Resilience Improvement and Market Expansion
RDMA	Regional Development Mission for Asia, USAID
REGIS	Resilience and Economic Growth in the Sahel
REGIS-ER	Resilience and Economic Growth in the Sahel – Enhanced Resilience
RFFEP	Rice Field Fisheries Enhancement Project
RISE	Resilience in the Sahel-Enhanced Project
RMS	Recurrent Monitoring Systems
RMS	Recurrent Monitoring System
RW-TWG	Resilience Measurement Technical Working Group
SABAL	Sustainable Action for Resilience and Food Security project
SAREL	Sahel Resilience Learning
SLI	Sequencing, layering, and integrating, USAID
STRESS	Strategic Resilience Assessment, Mercy Corps
STRESS	Strategic Resilience Assessment, Mercy Corps
TOC	Theory of change
TOPS/The TOPS Program	The Technical and Operational Performance Support Program

UK	United Kingdom
USAID	United States Agency for International Development
USG	United States Government
VSG	Village Support Group
WASH	Water, sanitation and hygiene
WFP	World Food Programme, United Nations
FSN	Food Security and Nutrition Network

INTRODUCTION

The objective of the Asian Resilience Monitoring & Evaluation Experiential Learning Event is to ensure that key stakeholders receive training on advanced resilience measurement practices in rural and urban environments by providing a hands-on learning opportunity to assess resilience capacities, develop resilience indices and indicators, and apply current monitoring techniques. The learning event is targeted to select USAID staff and implementing partners from Bangladesh, Cambodia, Indonesia, Nepal and the Philippines.

The Asian Resilience Monitoring & Evaluation Experiential Learning Event builds upon the Humanitarian to Development Resilience Collaboration Training for Field Practitioners (HADA Training) held in Senegal in February 2015 under the Technical and Operational Performance Support (TOPS) Leader with associate TANGO International.

Goals and objectives:

The purpose of Asian Resilience Monitoring & Evaluation Experiential Learning Event is to ensure that resilience-focused monitoring and evaluation (M&E) points of contact are prepared to effectively identify and monitor resilience-building efforts within their respective portfolios in order to provide comprehensive assessments. To achieve this training objective, USAID has determined four intermediate results (IR) in ensuring that M&E stakeholders have strengthened knowledge and ability to apply in:

1. Advance resilience capacity assessment and measurement concepts in rural (Module 1) and urban (Module 2) settings by linking household and community resilience to broader system resilience (in and between both urban and rural settings) and share these approaches with resilience practitioners;
2. Build implementing partner capacity to measure resilience by helping them understand the latest resilience measurement approaches;
3. Build USAID staff capacity to construct appropriate scopes of work and provide technical guidance to implementing partners to ensure quality performance M&E products that help build an evidence base for focused resilience efforts.

To achieve the learning event objectives, the training will provide USAID staff and implementing partners with strengthened knowledge and the ability to apply:

- Understanding of resilience measurement approaches and analytical frameworks and how to measure the three resilience capacities[1] shocks, and the set of well-being outcome indicators[2] in rural and urban settings;
- Understanding of resilience assessment approaches ;
- Design of a resilience-focused impact evaluation and recurrent monitoring process,
- Understanding of the links between household and community resilience and broader systems resilience; and
- Learning from resilience performance monitoring, impact evaluations, and data analysis.[3]

[1] The three resilience capacities include: absorptive, adaptive and transformative resilience capacities.
[2] Well-being outcomes are quality of life variables and can include measures of conditions related to food security, environment, health, poverty and personal security.
[3] This should consider data from context indicators, maps produced by the United States Government (USG) and other actors – including what to look for, how to analyze and how to use such data.

The Asian Resilience Monitoring & Evaluation Experiential Learning Event will be provided through two complementary modules. Module 1 will focus on the rural context within South and Southeast Asia and will cover livelihoods and food security within broader environmental resilience. By the end of Module 1, participants will be able to:

1. Understand their role within the resilience framework and how to efficiently manage the planning, implementation, and evaluation cycle,
2. Understand how to measure and integrate resilience and how to incorporate this within a rural environment in their respective portfolios within the South and Southeast Asia context.

The overall training approach uses a mix of plenary presentations and discussion for instruction, break-out sessions and hands-on case study exercises to apply the instruction, as well as fieldwork to accompany the training conducted in Siem Reap. For the fieldwork, participants will receive background information on the Tonlé Sap/Preylong Region where data collection will take place to supplement the primary data collected to build a practical base for analysis and resilience M&E design.

The training described in this curriculum pertains to Module 1 workshop organized into five days:

- **Session 1 – April 18**: Participants will learn resilience concepts, analytical frameworks, and measurement principles and how to apply a resilience lens within a rural context. Participants will learn how to measure resilience capacities, shocks and well-being outcomes.
- **Session 2 – April 19**: Participants will learn how to conduct resilience assessments and what the links are between household and community resilience and wider system dynamics. Examples will be drawn from Myanmar and Nepal and will be used for this training. Participants will also be made familiar with other assessment approaches and how to use secondary data as part of the assessment process. They will develop tools to be tested in the field in Session 3.
- **Session 3 – April 20:** Participants will travel to field (Tonlé Sap/Preylong region) and apply insight obtained from assessment approaches (Sessions 1-2) and measurement techniques to specific problems. Fieldwork during Session 3 will revolve around the Rice Field Fisheries Enhancement Project (RFFEP).[4]
- **Session 4 – April 21:** Practical application of knowledge and concepts to develop building blocks of a community assessment and test of assessment.
- **Session 5 – April 22**: Resilience recurrent monitoring and implications for programming. Participants will also consider how to operationalize the findings as part of the program cycle.

[4] See Session 3 for additional instructions.

SESSION 1: INTRODUCTION TO RESILIENCE CONCEPTS AND MEASUREMENT PRINCIPLES

Background:[5],[6]

Despite South and Southeast Asia's rapid economic growth, the region continues to face poverty and social and economic inequality. Earthquakes, tsunamis, floods, and other catastrophic natural and man-made disasters plague the region and have a direct impact in the lives of millions of people.[7] Against this already challenging backdrop, a complex set of drivers and dynamics have resulted in a large and growing resilience deficit characterized by the inability 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.

Chief among these drivers and dynamics are population pressure, increasing climate change events and variability, and reliance by households on ever-disappearing local sources of water and land for their food needs. The combination of these dynamics and drivers and the interaction between them has led to increased susceptibility to food price volatility, competition over resources, uncertain production, declining land and tenure security, population displacement, urbanization, regional migration, declining and variable incomes, divestment of assets, and indebtedness. Population growth rates, the impact of infectious diseases and debilitating health challenges, upwardly volatile food prices, and predicted increases in the frequency and intensity of climatic shocks suggest that, if left unaddressed, the depth and breadth of the already large resilience deficit in South and Southeast Asia will continue to grow at an accelerated pace. Issues of weak governance, corruption, and entrenched structural obstacles also impact the ways in which households, communities, and systems experience resilience.

It is within this context that there is now widespread recognition among national governments, regional institutions, the donor community, and humanitarian and development partners that more must be done to enhance the resilience of chronically vulnerable populations in regions that are affected by climate change events. Natural resource management practices and conservation efforts to curb biodiversity loss that also deter land degradation, water scarcity, and deforestation are gaining momentum. Initiatives to incorporate women and girls in development activities have gained traction to increase community resilience. 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*[8]

The United States Government (USG) has committed to leveraging both humanitarian and development resources to support these regional and national efforts. The USG is also

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[5] USAID Regional Development Mission for Asia (RDMA). 2015. Asia Regional Country Profile.
[6] USAID. 2016. Asia Regional.
[7] UN News Centre. 2014. Asia-Pacific report: World's most disaster prone region experiences three-fold rise in deaths.
[8] USAID. 2012. Building Resilience to Recurrent Crisis: USAID Policy and Program Guidance.

committed to broader coordination with governments, regional bodies, the international donor community and other development and humanitarian partners.

Session 1.1: Introduction to Resilience Framework

The Food Security Information Network (FSIN) Resilience Measurement Technical Working Group (RM-TWG)[9] has defined resilience as:

> *"The capacity that ensures adverse stressors and shocks do not have long-lasting adverse development consequences"*[10]

Key principles of resilience include improving our understanding of shock dynamics and of the multidimensional and multi-level capacities of resilience, which are indiced to well-being outcomes. As explained by the RM-TWG, "an optimal combination of resilience capacities can only be identified by measuring shocks."[11] These principles include:

- Resilience is a capacity that is exercised both in preparation for and in response to a disturbance or shock;
- Resilience capacity draws on a wide array of resources including human, social, economic, physical, programmatic (e.g., safety nets), and ecological;
- Resilience capacity should be indiced to a given well-being outcome; and
- Resilience capacity is often observed at a given level (e.g., household, community) but is understood as a multi-level construct.

Strengthening resilience requires an integrated approach and a long-term commitment to improving the **three resilience capacities**: absorptive, adaptive and transformative. Absorptive capacity relates to disaster risk management, as it is the ability of households and communities to minimize exposure to shocks if possible and to recover quickly after exposure. Adaptive capacity is the ability of households and communities to make active and informed choices about their lives and their diversified livelihood strategies based on changing conditions. Transformative capacity relates to system-level changes that ensure sustained resilience.

Components of conceptual framework: The conceptual framework for resilience integrates four types of frameworks/approaches: Disaster risk reduction (DRR), climate change adaption (CCA), livelihoods, and ecology (See **Error! Reference source not found.**).

The context includes environmental, political, social, economic, historical, demographic, religious, conflict, and policy conditions. The context is influenced and is impacted by absorptive and adaptive capacities.

The level of aggregation, or unit of analysis (i.e., individual, household or community levels), for building resilience capacities should be determined with the following questions in mind, beginning with: *Resilience of what? Resilience for whom? Resilience to what? and Resilience through what?* [12] The capacities represent a nested hierarchy that should be

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[9] The Resilience Measurement Technical Working Group is co-sponsored by the European Union and USAID and is comprised of 20 individuals from government and non-governmental organizations.
[10] FSIN, 2014. Technical Series No 1. Page 13.
[11] FSIN, 2014. Technical Series No. 2.
[12] Adapted from Mercy Corps' Resilience Framework, see Mercy Corps. 2015. Our Resilience Approach (See Session 2.1).

considered when determining the target unit. Resilient individuals and households are the foundation for resilient communities. However, resilience at one level does not automatically result in resilience at higher levels, and resilience to one type of shock does not ensure resilience to others. Finally, resilience and vulnerability are not outcomes—they are processes, and the resilience capacities are not linear.

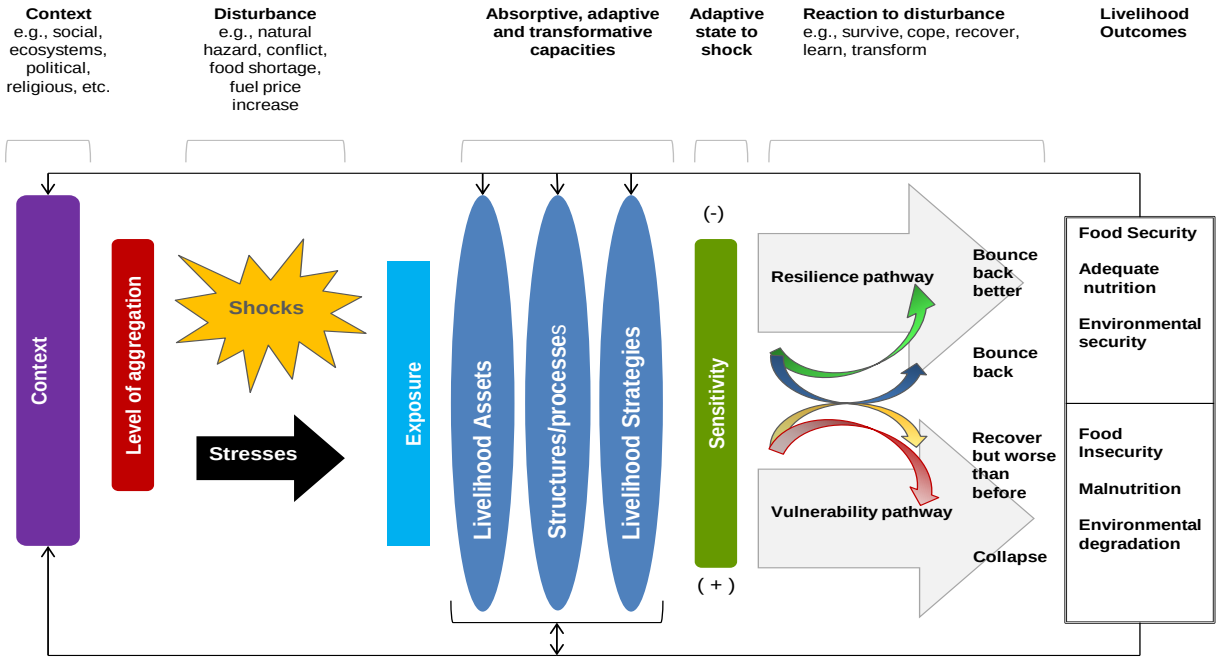
The type and level of disturbance are also important to understand. Resilience to one type of shock does not ensure resilience to others. An understanding of shocks and stresses is key to gain insight into the capacities and responses following a disturbance. This is the point where risk reduction and absorptive capacity are crucial. Resilience can be measured before, during and after shocks to further understand resilience and vulnerability pathways.

Shocks may include both covariate (i.e., shocks that are widely experienced) as well as idiosyncratic shocks (i.e., individualized shocks). Stresses can include low-intensity disturbances that can negatively affect development over an accumulation of time. Shocks and stresses may include climatic events due to climate change as well as those due to natural shifts (e.g., El Niño events) and other natural disasters, pests and diseases that affect human and livestock populations, political conflicts, economic crises (see Figure 4 for a visual representation of the shocks/stresses within the resilience measurement framework and see Session 2.3b for additional information in the Cambodia context).[13] However, it may be difficult to distinguish between the stresses and shocks. For example, a drought would be considered a shock while environmental changes during times of drought are considered stressors.

Finally, resilience should not be considered an outcome or program goal but instead a determinant of well-being and livelihood outcomes, such as food security, poverty, and nutritional status. These outcomes affect future vulnerability to risk. Overall, baseline and endline analysis of well-being and livelihood outcomes, basic conditions, shock exposure and resilience capacity indicators will enable the program—based on the comprehensive assessment and sound problem analysis/theory of change (TOC)—to determine changes over time in resilience capacities.

[13] FSIN, 2014. Technical Series No. 2.

Figure 1 – Resilience conceptual framework



Source: Frankenberger, T. R., M. A. Constas, S. Nelson and L. Starr. 2014. "Current Approaches to Resilience Programming among Nongovernmental organizations." Building Resilience for Food & Nutrition Security. Paper prepared for the 2020 Conference. Paper No. 7. May.

Figure 2 – Exercise on contextualizing resilience components

Small group discussion: **Using the conceptual framework in** Error! Reference source not found.**, participants should identify what each component looks like based on their experience in this region. Answer the following questions:**

- What are contextual considerations that influence vulnerabilities or capacities of households and communities?
- What is your experience with how household level ability to cope or recover is related to the community level? Or other levels?
- What are the types of shocks/stresses common in this region? What are the frequency, duration, and severity of these shocks/stresses?
- What are the livelihood assets of this region? What are the livelihood strategies or improved practices promoted through your programming?
- How well do governance systems function at the local, provincial and national level?
- What interventions are implemented in this region that help household or communities bounce back after a shock? How long does it take households to recover from certain shocks?

- What are the household well-being outcomes your programs are typically measuring? (these may include measures of conditions related to food security, environment, health, poverty and personal security)

Humanitarian and development coordination: For areas in South and Southeast Asia facing the impacts of climate change and recurrent shocks, resilience building necessitates humanitarian and development coordination. To be effective and to further the objectives of humanitarian and development interventions, a resilience approach needs to identify opportunities for layering, integrating, and sequencing programming. See Figure 3 for a description of each of the three components, as explained by USAID. [14, 15]

Actively working toward a common goal includes coordination throughout planning, project design, procurement, and learning. This can help ensure a coherent strategy that ensures better utilization and strengthening of host country systems to promote greater capacity building, lasting institutions, and resilience. In this context, development programs need to be designed with flexibility to allow for changes that occur on the ground to manage and adjust to crisis modifiers through embedded humanitarian responses. Humanitarian assistance programs, on the other hand, need to establish a platform that development investments can build upon in order to protect resilience and development gains.

Figure 3 – Layering, integrating, and sequencing humanitarian and development programs for building resilience

Layering: Layering programs involves targeting the same geographic area and demographic population with both humanitarian and development assistance. This allows humanitarian actors a means of protecting development gains, primarily through early and appropriate response to early warnings.

Integrating: When program objectives are integrated, objectives set forth in humanitarian work strengthen development assistance through reinforcing means. Similarly, investments in development assistance can be used as a means of reducing recurrent humanitarian assistance needs and building greater resilience capacities.

Sequencing: Strategic and logical sequencing of programs allows development assistance to transition smoothly from humanitarian work in a way which builds upon the successes of humanitarian programming, both in response and recovery. In this manner, strengthening humanitarian work enhances the existing opportunities towards long-term development work and resilience.

Small group discussion: Follow the instructions and prompts of the facilitator. In small groups discuss the follow questions:

- *How does your country office (implementing partners) or agency (USAID) currently conceptualize resilience? Do we have a common understanding of resilience across implementing partners?*
- *What are the differences with the framework presented here, or across agencies?*
- *How can the resilience framework be integrated into project and program design so a resilience lens is incorporated in all stages of programming? (*to be revisited in Session 5.4 to prompt participants to plan for future programming).

[14] USAID. 2012.
[15] USAID. N.D. Principles of SLI.

Session 1.2 Introduction to Resilience Measurement

Plenary Discussion: Participants will identify the ways in which they are already familiar with resilience indicators as a way to enable participants to merge their regional experience with the resilience measurement framework and capacities. Participants will be asked to fill out the indicator and related interventions that contribute to strengthened resilience based on their experience. See the first line as an example. [Hint: it may help to first think about the common activities promoted by the projects in which participants are involved to help households and communities prepare/respond to shocks – in this case, first list the intervention and then identify the related indicator.]

For those participants who work in single sectors (e.g., health), it will be important to integrate how their work fits within a broader multi-sectorial resilience framework. For those participants who work in multi-sectorial activities, careful consideration must be taken to ensure that the indicators they discuss align with those of single-sector participants.

Please note that an indicator may have many examples of possible interventions, and at the same time, an intervention may fall under multiple indicators. In the example below, women's savings groups are a form of informal safety net, but women's savings groups are also an activity that empowers women, strengthens bonds within a community, and could allow women to diversify their households' livelihood activities.

Table 1 – Resilience indicators and interventions worksheet

Indicator to build resilience	**Intervention example that builds resilience**
Example: Informal safety nets	*Example: Women's savings groups*
1.	
2.	
3.	
4.	
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23.	

After having listed resilience indicators and interventions based on their experience, participants will gain insight on the indicators that have been identified for each resilience capacity (See Table 2). These can be single or composite indices that represent some level or state of well-being/condition and can be measured at the household, inter-household, community, and higher systems levels.[16] These same indicators may be part of a performance monitoring system and measured at baseline and endline along with changes in risk exposure and resilience capacities. Data may come from surveys, interviews/focus groups, monitoring activities and other secondary sources.

Table 2 – Resilience capacities

Absorptive capacity	
Bonding social capital	
Preparedness (early warning, response planning)	Conflict mitigation
Informal safety nets (saving groups, other self-help groups)	Low coping strategy Index
Hazard insurance	Mitigation measures (seed banks, livestock offtake)
	Ability to recover
Adaptive capacity	
Bridging social capital	
Diversity of livelihoods in different risk profiles	Human capital
Aspirations/attitudes/confidence/risk tolerance (psycho-social measures)	Asset ownership and use
	Access to financial services
	Access to natural capital/resource flows
Transformative capacity*	
Linking social capital	
Formal safety nets	Policies and regulations
Communication networks	Governance mechanisms
Functioning and well-governed markets	High quality basic services
Sufficient quality and quantity of infrastructure	Well-managed and sufficient natural resources
	Security

*Transformative capacity building requires a systems perspective to construct measures that reflect the highly interconnected relationships at the systems level.

Causal framework: Causal frameworks are useful because they focus measurement activities and because they provide a potential link between the logic of interventions and the organization of data analysis that follows measurement. The resilience causal framework shown in Figure 4 provides an organizational scheme in which the task of developing resilience measures can be conceptualized and implemented. The components include the:

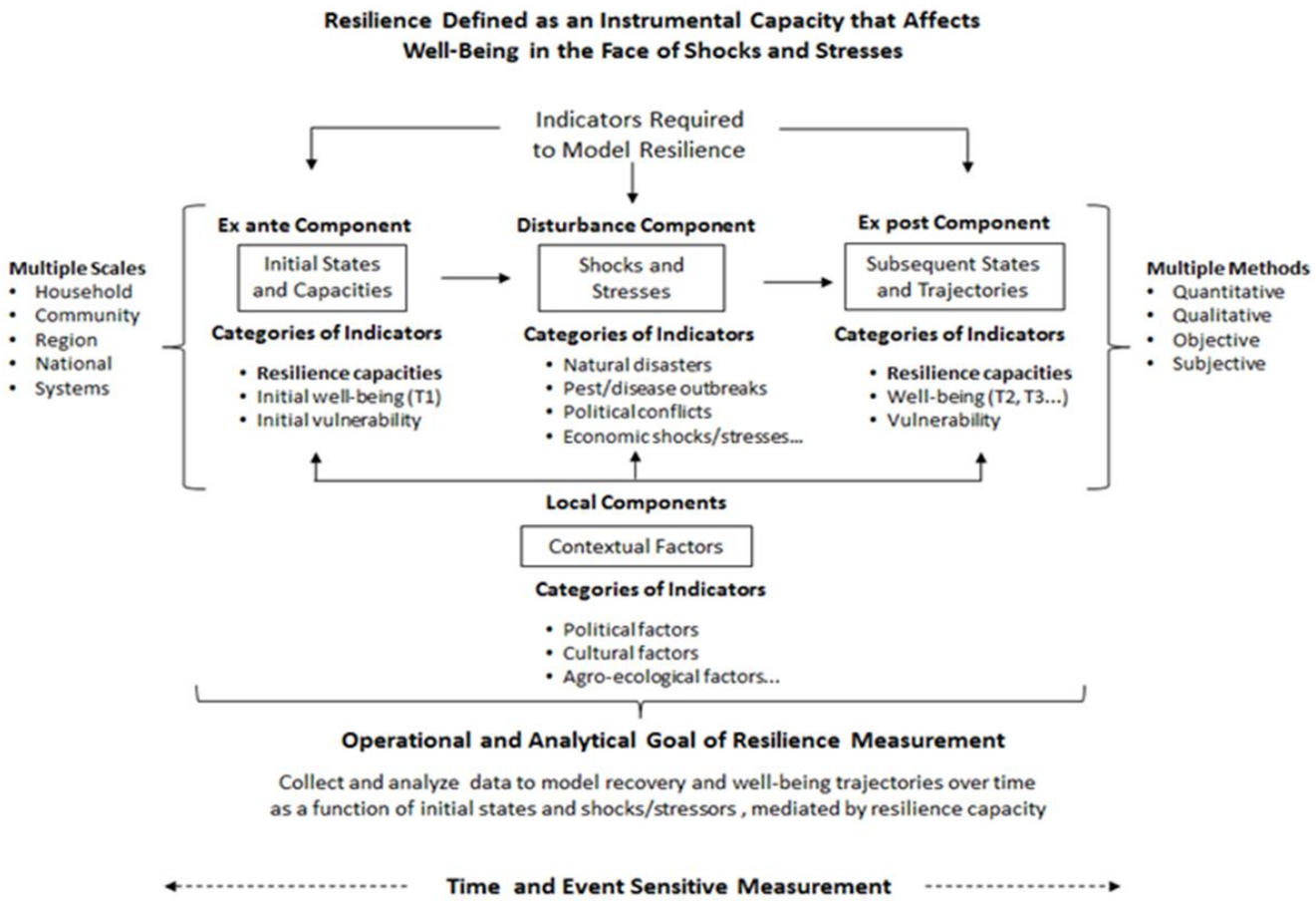
- *Ex ante component* – generates data to describe the initial state at time one (t1), before the occurrence of a shock;
- *Disturbance component* - generates data to describe the intensity and effects of various types of shocks and stressors; and
- *Ex post component* - generates data to describe the end state at time one (t2). There are important considerations for the timing of ex post data collection, such as administering the survey at more than one point in time to ensure that observed patterns of adaptation and transformation are not short-lived.

[16] Please note: the absorptive, adaptive, and transformative capacities presented are measured on a normalized scale estimated using the polychoric factor analysis (PCA) which is part of the Principal Component Analysis scale with a mean of zero and a Standard Deviation of one.

As Figure 4 demonstrates, the multiple scales which must be taken into consideration when assessing resilience include: household, community, region, national, and systems. This organizational scheme enables the user to conceptualize and implement resilience programming by incorporating the collection of data t multiple levels. In this way, the indicators needed should be drawn from one or more of the levels depending on the nature of the intervention as well as on the TOC being followed. A key point is to understand at which level the most critical factors occur which influence a particular measurement component to identify the drivers of resilience.[17]

[17] FSIN, 2014. Technical Series No. 2.

Figure 4 – Resilience measurement framework[18]



Source: FSIN, 2014. Technical Series No. 2. as cited in Béné, C., T. Frankenberger and S. Nelson. 2015.

[18] The resilience measurement framework was developed by the Food Security Information Network (FSIN) to conceptualize and develop resilience measurements for implementation, which is facilitated through USAID. See also USAID's technical note on "The Resilience Agenda" listed in the references box at the end of Session 1.2.

Plenary discussion: Follow the instructions and prompts of the facilitator. In plenary, discuss the follow questions:

- *What information is important for resilience measurement, and in the South and Southeast Asia context, in particular?*

Session 1.3a: Resilience Indicators and Constructing Indices

Resilience should be viewed as a set of capacities that enable households and communities to effectively function in the face of shocks and stresses and still meet a set of well-being outcomes. It's noteworthy to understand the ways in which different sectors are interconnected to facilitate well-being outcomes across different levels: poor health outcomes for instance, could be linked to poor natural resource management practices. In this way, constructing indicators needs to take into account a multi-secorial approach in resilience programming.

The ability to measure resilience involves measuring the relationship between shocks, capacities, responses, and future states of well-being. *Thus, there is no single indicator that measures resilience, and the variables that comprise the indices are FLEXIBLE based on the context and further analysis*. There is a need for a number of indicators to be used as part of a measurement framework. The following are key factors to consider in measuring resilience:

- Identify the well-being outcomes to be achieved and measure resilience in relation to these outcomes;
- Identify the shocks and stresses that individuals, households, communities and systems are exposed to and the severity and duration of these shocks and stresses;
- Measure the absorptive, adaptive and transformative capacities in relation to these shocks and stresses at different levels; and
- Identify the responses of individuals, households, communities and systems to these shocks and stresses and trajectory of well-being outcomes.

Resilience measures in practice: TANGO is building an evidence base with these resilience indicators and indices in practice.[19] In a mixed methods approach, quantitative and qualitative information provide s the basis for addressing a program's research questions. Quantitative methods may include household and community level surveys while qualitative methods may use focus group discussions (FGDs), and key informant interviews (KII) with information triangulated across the quantitative and qualitative data sources.

Categories of information for defining qualitative component: This information will be invaluable for elaborating and providing insight on the relationship between household and community level resilience and on the ways resilience at one level (e.g., household, community, system-wide) impacts resilience at another level. As part of Module 1, the qualitative tool design developed in Session 2 and implemented in Session 3 during the fieldwork will investigate topical areas such as those described below (See Session 2.3b for follow-up work on designing qualitative tools):

[19] While Module 1 focuses on designing and implementing qualitative tools within a resilience M&E framework during the five-day workshop, a brief introduction to quantitative method design is covered to provide participants the tools to incorporate a mixed methods approach in future programming. This includes a brief review of these methods in Session 1.3a as well as in Session 4.2.

- *Government or NGO programs*: presence and types of government and NGO programs, impact on community, links through programs to other programs, and recommended changes, etc.
- *Shocks, risks and coping strategies*: characteristics of shocks and community responses, types of coping strategies, reliance on others and changes in social support, household and community adaptations to reduce impacts of shocks, role of community in reducing impact of shocks, role of organizations in managing shocks, gendered-differentiated impacts of shocks, etc.
- *Participation*: effectiveness of community leaders organizing support and of DRR/DRM strategies and risk/information-sharing networks, collective action to deal with shocks, gender/social/ethnic barriers to participation (Figure 5), perception of community recovery from shocks and reasons for recovery (or lack of recovery), etc.

Figure 5 – Addressing gender and of social inclusion in a resilience M&E framework*

Taking account social and ethnic barriers to participation are important elements to understanding how resilience: religious, ethnic, and social discrimination (e.g., with migrants) can have lasting negative effects and impact how households and communities are able to mitigate, adapt, and recover from shocks and stresses. Discrimination at work, exclusion from informal safety nets, limited access to social services, limited access to land, and increasing tension and conflicts can occur within issues of social exclusion. Resilience indices must consider how capacities and responses should be captured at all levels, including vulnerable and marginalized groups and those who are most at-risk for being left-out.

Likewise, gender is a key dimension to take into consideration when designing and implementing a resilience M&E framework since both capacities and responses to shocks and stresses can be gender-differentiated. Gender equality and women's empowerment may also be identified as key wellness outcomes. As such, creating indices that capture how men and women face shocks and stresses should be taken into account when creating indices for a resilience M&E framework.

What factors influence whether individuals, households, or other levels of society put resilience capacities to effective use? Some of the factors which should be considered with a gender lens include (but are not limited to):

- Sense of individual power/ agency/ absence of fatalism (individual/HH level)
- Aspiration/ motivation to adapt in the face of change (individual/HH level)
- Exposure to alternatives to the status quo (individual/HH level)
- Power dynamics (community and other layers of society)
- Political willingness (community and other layers of society)
- Perceived risk/ opportunity cost (all)

*For additional information on gender, see Annex 1 – Incorporating gender in a resilience M&E framework. For a complete list of references, see Session 1.4 reference list.

Constructing indices for quantitative methods: While Module 1 focuses on qualitative tool development for resilience programming design, proposed indicators for household and community survey are provided below to stimulate future discussion. Table 3 lists the potential elements of each resilience index for household and community surveys.[20] Please note that the proposed indicators are illustrative and should be adapted to capture the nuances of a particular context after a thorough review of secondary data.

Table 3 – Resilience indices and proposed indicators

Index categories[21]	Survey	Proposed composition of indicators
Absorptive Capacity Index: Perceived ability to minimize exposure to shocks and stresses (ex ante), where possible, and to recover quickly when exposed: bonding social capital, savings, asset ownership, Informal safety nets, shock preparedness and mitigation, hazard insurance	Household	Index of perceived ability to recover from shocks: exposure to shocks, severity of impact, extent of recovery
		Binary variable if a household member currently holds savings
		Index of bonding social capital: giving and receiving assistance with relatives and non-relatives within one's village
		Household Asset Score (defined using PCA)
	Community	Number of community organizations providing safety nets (e.g., micro-finance, savings, religious groups)
		Binary variable if community has disaster planning group that provides shock preparedness, response and mitigation program
Adaptive Capacity Index: Ability to make proactive and informed choices about alternative livelihood strategies based on changing conditions: access to financial resources, human capital, diversity of livelihoods, exposure to information, asset ownership, aspirations and confidence to adapt, bridging social capital, and linking social capital	Household	Index of human capital: binary variable if household has any adults with primary or higher education; binary variable if household has any adults with literacy and numeracy skills; and number of trainings adults have had (e.g., vocation, business, NRM, etc.)
		Number of different livelihood risk profile categories of income sources as well as risks derived from different risk profile categories
		Number of topics for which respondent has received information in the last year (e.g., early warning information, health and sanitation messaging, etc.)
		Household Asset Score
		Index of bridging social capital: giving and receiving assistance with relatives and non-relatives outside one's village
		Aspirations and confidence to adapt (absence of fatalism, sense of individual power, exposure to alternatives to the status quo, individual power, and exposure to alternatives
		Index of linking social capital: Number of topics for which respondent has received information in the last year from different types of sources/officials
	Community	Binary variable if community has institution that provides credit
		Binary variable if community has institutions/groups for savings
		Index of linking social capital: Access to and quality of community services for roads, health, veterinary, agricultural extension
Transformative Capacity Index: System-level changes	Household	Livestock service score: Number of total livestock services available in the area (e.g., vaccination, disease treatment, de-worming, etc.)

[20] The indicators described for each index are combined using polychoric factor analysis (PCA).
[21] Resilience capacities are defined at the household level and as they appear in Feet the Future (FTF). 2016. Resilience in the Sahel-Enhanced (RISE) Project Impact Evaluation. Volume 1.

Table 3 – Resilience indices and proposed indicators

Index categories[21]	Survey	Proposed composition of indicators
that enable more lasting resilience that related to governance mechanisms, policies/regulations, infrastructure, community networks, and formal safety nets which are part of the wider system in which households and communities are embedded: formal safety nets, access to markets, access to infrastructure, access to basic services, access to livestock services, access to communal natural resources, bridging social capital, linking social capital		Index of bridging social capital: giving and receiving assistance with relatives and non-relatives outside one's village
		Index of linking social capital: Number of topics for which respondent has received information in the last year from different types of sources/officials
	Community	Number of formal safety nets available in community where people can receive: food assistance, housing and non-food items, assistance due to livestock loss, and availability of disaster response program from Government or NGOs
		Markets score: Number of markets available within 20 km of the community for livestock, selling, and purchasing agricultural products
		Infrastructure score: Number of communities with at least half of households that have access to improved water source; to electricity; community has cell phone service or public telephone; and community can be reached by paved road
		Basic service score: Number of communities with a primary school within 5 km; health center within 5 km; veterinary service within 5 km; agriculture extension service offered in the area; an institution that give loans; and a security service/force in the area
		Communal natural resources score: Number of communities with communal grazing land; communal animal water source; and communal land for firewood
		Index of linking social capital: Access to and quality of community services for roads, health, veterinary, agricultural extension
Household Resilience Index	Household and community	Indices of absorptive, adaptive, and transformative capacities
Community Resilience Index: Community-based NRM, Community disaster risk reduction index, social protection index, managing and maintaining public goods, and conflict mitigation	Household	Community DRR index: proportion of households that received information in the last year on long-term changes in weather patterns
		Proportion of households who have received support from relatives, friends, or neighbors in the last year
		Proportion of households who have given assistance to relatives, friends, or neighbors in the past year
		10 questions that measure proportion of households who could obtain or would give money/food or help with work to/from relatives or others living in the community if they had a problem, or to/from others outside the community
		Percentage of households in the community that received information on “conflict or other restrictions on access to grazing” in the last year
	Community	Number of NRM groups in the community (or other project-supported groups of the like)
		Community DRR index: binary variable if community has disaster planning group
		Social protection index: binary variables if community has a savings group; mutual help group; and women's group
		Binary variable if community has active "civic improvement" group to manage and maintain public goods

Example survey categories of indicators to measure capacities at the household level:

- Economic resources (assets market access, supply chain efficiency, access to informal savings and loan groups)
- Livelihood strategies (diversity across risk profiles, climate smart, capacity-building/technical skill development)
- Risk management strategies (risk exposure and perception, decision making and planning, disaster preparedness, hazard insurance)
- Human capital (education, skills and abilities, nutritional status, health and wellness, adoption of knowledge and information)
- Social capital (bonding, bridging, linking)
- Technology and innovation (agriculture, tele-communication, access to weather/market information)
- Service infrastructure (roads and transportation, access to markets, water and sanitation, vet services, medical services, security)
- Institutions and governance (coverage, structural integrity, effectiveness, conflict mitigation mechanisms, management and control of shared resources)
- Social protection (focus and type, strategic aim, integration and duration)
- Agro-ecological (soils and water resources, natural resource management, cropping and grazing practices, practices on fisheries and fish ecosystems)

Example survey categories to measure capacities at the community level:

- Community characteristics: population fluctuations, ethnic/clan groups, years of existence, typical number of growing seasons, communal sources and community-based NRM such as rangeland, water (for animals), trees/firewood and irrigation.
- Community infrastructure and services: systems, sources, availability and/or conditions for drinking water, electricity, mobile and public phones, roads and public transportation, schools, health centers, veterinary and animal services, agricultural extension, markets, security/police force, and credit. This also includes an overview of typical housing materials and the availability of housing or food assistance, adult education, and other services.
- Community organizations: presence of various social networks and their participants (gender/age).
- Government and NGO programs: presence and types of government and NGO programs.
- Shocks: Experience of shocks in past five years and community response/coping to protect assets.
- Land management: types of NRM systems and practices
- Community governance: types of traditional and formal governance and conflict resolution systems that exist. Level of women's participation in community governance/feedback and conflict resolutions systems.

Outcome indicators:

- Food security,
- Environment,
- Health,
- Poverty and ,

- Personal security.

Small Group Discussion: Follow the instructions and prompts of the facilitator. In plenary discuss the follow questions:

- *What are the main challenges and considerations for constructing indices for resilience in the South and Southeast Asia context?*

Session 1.3b: Contextualizing Resilience Indicators – Case Example

To highlight the ways indicators are contextualized to a particular environment, a baseline survey of two case studies from Nepal will be considered: Nepal's Promoting Agriculture, Health and Alternative Livelihoods (PAHAL) project and Sustainable Action for Resilience and Food Security (SABAL) project.[22]

Background on PAHAL and SABAL projects: [23] The PAHAL and SABAL projects were created to improve the food security and resilience of the most vulnerable communities in the Central and Eastern Hills (SABAL) and in the Far and Mid-West hills and mountains of Nepal. The SABAL project focuses on increasing income, improving the health and nutrition of pregnant and lactating women (PLW), children under five years, and their families, and strengthening the ways households and communities mitigate, adapt to, and recover following shocks and stresses. The purposes of the PAHAL project focus on improving systems, policy, and physical environments, increasing income, improving health and nutrition, and understanding how households and communities mitigate risks and impacts in the face of shocks and stresses.

Contextualizing indicators: In order to gain insight on the SABAL and PAHAL project areas, resilience indicators were included in the design of the mixed methods baseline study. Using the resilience analysis plans in Nepal's SABAL and PAHAL projects as a comparison to standard indicators,[24] we find that resilience indicators were contextualized under each capacity to capture data relevant to that country's context. As seen in Table 4 under the column labeled "Nepal SABAL & PAHAL Resilience Indicators," the indicators in bold and italics and found in in the boxes with the thick borders are indicators that were added to the standard indicators that are used to measure resilience (e.g., access to remittances, adoption of improved practices, access to agricultural services, gender equitable decision-making index, and active participation in local decision-making bodies) based on the needs of the particular context. Nepal did not include access to livestock services, access to communal natural resources, and most notable, aspirations and confidence to adapt.

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[22] Both PAHAL and SABAL were funded by the U.S. Agency for International Development (USAID) Office of Food for Peace (FFP) and implemented by to Save the Children (SABAL) and Mercy Corps (PAHAL).

[23] TANGO International. 2015. Rapid Exploratory Study to Identify/Validate Shocks/Stressors and Contextualize Resilience Capacity Indicators in PAHAL and SABAL Target Areas, Nepal. Proposal. Commissioned by TOPS. May.

[24] These have been drawn from an illustrative list of resilience indices and proposed indicators (see Table 2).

Table 4 – Resilience indicators in Nepal's PAHAL and SABAL projects

	Standard Resilience Indicators[25]	Nepal SABAL & PAHAL Resilience Indicators
Absorptive capacity	Bonding social capital	Bonding social capital
	Savings	Saving
	Asset ownership	Asset ownership
	Informal safety net	Informal safety net
	Shock preparedness and mitigation	Shock preparedness and mitigation
	Hazard insurance	Hazard (agricultural) insurance
	Perceived ability to recover	Perceived ability to recover
		Access to remittances
Adaptive capacity	Access to financial resources	Access to financial resources
	Human capital	Human capital
	Diversity of livelihoods	Diversity of livelihoods
	Exposure to information	Exposure to information
	Asset ownership	Asset ownership
	Aspirations and confidence to adapt	
	Bridging social capital	Bridging social capital
	Linking social capital	Linking social capital
		Adoption of improved practices
Transformative capacity	Formal Safety Nets	Formal Safety Nets
	Access to markets	Access to markets
	Access to infrastructure	Access to infrastructure
	Access to basic services	Access to basic services
	Access to livestock services	
	Access to communal natural resources	
	Bridging social capital	Bridging social capital
	Linking social capital	Linking social capital
		Access to agricultural services
		Gender equitable decision-making index
		Active participation in local decision-making bodies

Small Group Discussion: This session allows time for the facilitator and participants to summarize the key objectives and discussion points of Session 1.

[25] Ibid.

- *What are the key challenges and opportunities for applying resilience concepts to M&E frameworks within a rural context?*
- *What are the main opportunities and challenges for measuring resilience in the South and Southeast Asia context?*
- *How can resilience indicators be adapted to fit a program's purpose in a way that captures resilience capacities and responses to shocks and stresses?*

Session 1.4: Wrap-up

Small Group Discussion:

- *[Participants, please refer to Annex 6 – Module 1 Evaluation Form to provide insight on experience for Session 1]*

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SESSION 2: INCORPORATING RESILIENCE INDICATORS INTO ASSESSMENT DESIGN AND M&E FRAMEWORKS

Session 2 introduces participants to Mercy Corps' Strategic Resilience Assessment (STRESS) approach[26] and an introduction to resilience M&E frameworks in preparation for the design of qualitative tools (Session 2.3a and Session 2.3b) for the fieldwork to be carried out during Session 3. Participants will gain an understanding of the measures needed to develop project-level resilience M&E frameworks.

Session 2.1: Resilience Assessment Design and the STRESS Approach

Mercy Corps' approach to resilience aligns with the resilience framework introduced in Session 1.1 from the FSIN network as well as with USAID's definition of resilience (see Session 1) and is an approach that adopts the visualization of resilience as a process and not simply as an outcome. Mercy Corps defines resilience as:

The capacity of communities in complex socio-ecological systems to learn, cope, adapt, and transform in the face of shocks and stresses[27]

Recent trends – economic downturns, catastrophic natural events, fuel and food crises – have promoted a forward-thinking approach at Mercy Corps that allows for humanitarian and development work to strategically focus on finding solutions to both recurrent and entrenched challenges.[28]

Mercy Corps' STRESS process frames the way resilience is understood in complex system by providing guidance on addressing resilience through four key questions:

1. Resilience of what? (Outcome measures)
2. Resilience for whom? (Disaggregated population)
3. Resilience to what? (Shocks/stresses)
4. Resilience through what? (Resilience capacities)

These questions frame how resilience programming is designed and implemented. The questions seek to identify those who are vulnerable and the root causes of their vulnerability through an integrated systems approach.[29]

Resilience of what? *(What are we hoping to build the resilience of?)*

This question delineates the geographic boundaries as well as the social, economic, and ecological systems that bind the target area. Elements of the social systems include the relationships, networks, and norms between individuals, households, and communities. Elements of the ecological systems include the ecosystem and the natural environment that support the principal livelihood strategies of the target area while elements of the economic systems include the production and consumption activities.

[26] Mercy Corps. 2015. Our Resilience Approach.
[27] Mercy Corps. 2015. Our Resilience Approach. Page 1.
[28] Mercy Corps. 2015. Resilience.
[29] Mercy Corps. 2015. Our Resilience Approach.

Resilience for whom? *(Whose resilience are we trying to build? Who are we building resilience for?)*

This question investigates who is your target population by seeking the social and geographic drivers of vulnerability for different social groups. By investigating varying degrees of vulnerability across social groups, program design can better target those households and communities who may be more exposed to shocks and to stresses and who may have a more difficult time recovering. Consider some of these factors when identifying your target population: gender, race, age, ethnicity, and caste.

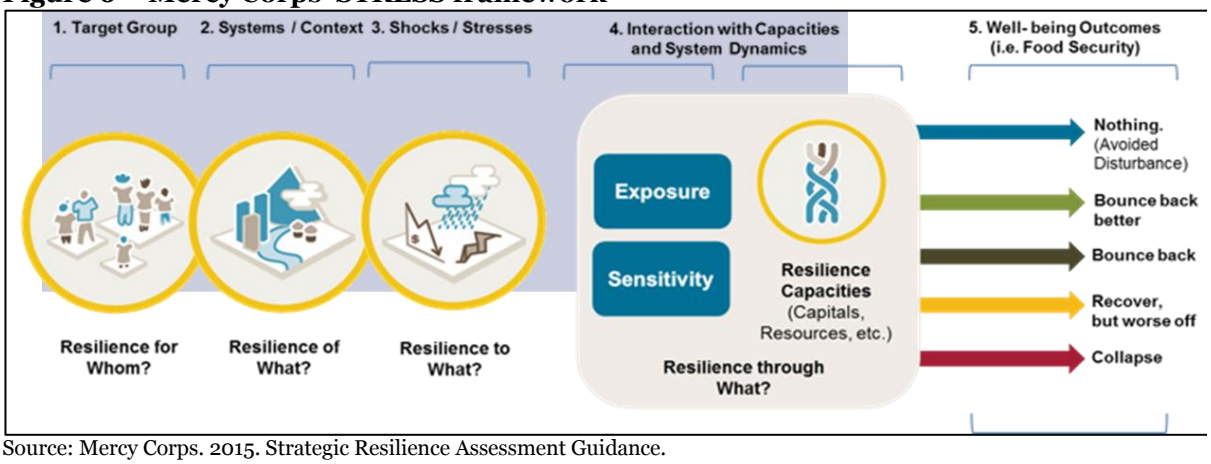
Resilience to what? *(What types of disturbances are we building resilience to?)*

This question helps to identify and prioritize which shocks and stresses plague a target population by identifying the threats that can destabilize households and communities. This allows for resilience programming to refine how to address risk across different systems and temporal scales.

Resilience through what? *(What is being done to build resilience?)*

This question in the STRESS approach addresses the need to strengthen the three resilience capacities(absorptive, adaptive, and transformative) in order to better equip individuals, households, communities, and systems to prepare for and deal with risk over time. These are covered in Session 1 in more detail (also see Table 2).

Figure 6 – Mercy Corps' STRESS framework



Source: Mercy Corps. 2015. Strategic Resilience Assessment Guidance.

Using the four guiding questions, the STRESS approach frames the design and subsequent facilitation of a resilience programming TOC. This is accomplished as a learning process in which preliminary information is gathered to understand the situation and then built upon and adapted throughout the life of the assessment.

Through the STRESS assessment, the TOC becomes the description through which a resilience program is operationalized. It is through the TOC that a measureable path from interventions to a desired outcome is described using a written or illustrated diagram. Through individual programs, a TOC is tested and adapted for future programming, making the TOC flexible enough to different circumstances as lessons area incorporated.

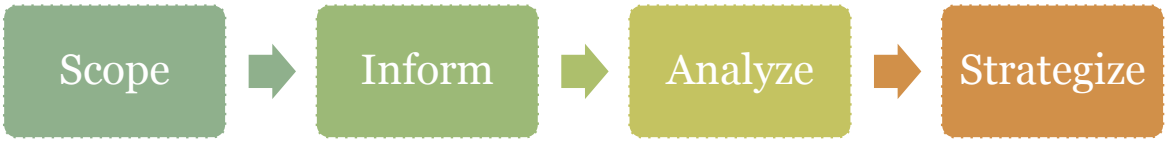
It is through this adaptive management approach that the design, planning, and implementation of a resilience program are guided. This allows for actions to guide advancements through a refinement of practices following continual monitoring. This provides an evidence-based learning process that incorporates scientific and local knowledge which shapes resilience programming and which can be shared across different stakeholders and partners for effective interventions and meaningful impacts.

The four objectives of STRESS[30] are:

1. Identify and analyze the ways in which shocks and stresses impact development outcomes at various levels (local, regional, national);
2. Define the ways in which shocks and stresses impact certain subgroups or geographies in different ways as well as defining underlying factors that worsen these impacts;
3. Understand capacities and opportunities in the face of shocks and stresses through the resilience capacities (absorptive, adaptive, transformative); and
4. Develop capacity-building for a resilience programming team to understand complexity for future resilience work.

The STRESS objectives fit within the STRESS process that follows four sequential phases: scope, inform, analyze and strategize. Phase 1, **Scoping**, builds a contextual understanding of the system based on the four resilience guiding questions (listed above), and establishes the focus of the research based on knowledge gaps and key capacities for resilience identified in the systems mapping process. The **Inform** phase employs a mixed-methods approach to collect qualitative (and quantitative) data needed for an informed analysis. The **Analyze** phase evaluates and synthesizes the data collected. In the final phase, **Strategize**, a TOC is developed (see Figure 7).

Figure 7 – Phases in the STRESS approach



Source: Mercy Corps. 2015. Strategic Resilience Assessment Guidance.

This comprehensive framework uses Mercy Corps' four guiding resilience principles:[31]

Principle 1: Complex dynamics require a systems approach. Gaining an understanding of the dynamic, unpredictable, and interlinked political, economic, ecologic, and social systems is key to addressing resilience. Mercy Corps seeks to capture the ways in which these structures influence how households and communities are able to absorb, adapt, and transform so that interventions can have a significant and meaningful impact.[32] This ensures that the STRESS approaches resilience assessment in a strategic level process in which household and community analysis are incorporated into a portfolio or projects that are include more comprehensive goals at a higher level. However, it is necessary to understand

[30] Source unless otherwise noted: Mercy Corps. 2015. The STRESS Process at Mercy Corps.
[31] Mercy Corps. 2015. Our Resilience Approach.
[32] Mercy Corps. 2015. The STRESS Process at Mercy Corps.

the capacities and responses at the individual, household, and community level to build resilience within complex systems.[33]

Principle 2: Our role is one of facilitation. Mercy Corps' intention is to promote an environment of capacity building, inclusivity, and awareness to enable local households and communities to have the ability to respond to changes. Through investing in relationships and collaboration, Mercy Corps catalyzes and supports resilience-building.

Principle 3: Strong partnerships and dynamic relationships are transformative. As part of long-term sustainable change, Mercy Corps emphasizes the importance of creating lasting partnerships with various stakeholders across all levels to enact changes that are integrated and cohesive.

Principle 4: Model, test and iterate to build an evidence-base toward resilience. While resilience-building takes time and is less visible within a short time frame, continuous modeling, testing, measuring, and refining of resilience-based interventions and projects across country and regional portfolios allows for the construction of a pathway towards resilience.

These four guiding principles ensure the systematization of a meaningful resilience approach through the STRESS assessment process that complement the concepts introduced in Session 1.1 and Session 1.2. Session 2.2 will demonstrate how the STRESS approach has been developed across two different countries in the South and Southeast Asia region by Mercy Corps as an example for participants to visualize the various phases in practice prior to their fieldwork in Session 3. The topical outline for FGDs (see Annex 4 – Sample qualitative tools) provides an example of how a qualitative tool may be adapted to fit within the STRESS assessment approach.

Session 2.2: From Assessment Findings to Theory of Change– Case Examples from Myanmar and Nepal

In order to understand how a TOC is developed using the STRESS approach, case studies from Myanmar and from Nepal will highlight this process. The four phases of STRESS will be discussed as they have been applied by Mercy Corps to demonstrate potential ways of using project-level assessments towards building resilience TOC.

Small group exercise: Participants will be divided into two groups by the case studies. They will need to review the information provided below for their designated case study in order to answer the following questions:

1. Resilience of what?
2. Resilience for whom?
3. Resilience to what?
4. Resilience through what?

The participants will then reconvene and give a brief presentation of their findings.

[33] MerCy Corps. 2015. Strategic Resilience Assessment Guidance.

Case Study 1: The Dry Zone of Myanmar – A strategic resilience assessment of farming communities[34]

Background: Myanmar has three primary agro-ecologic zones: Central Dry Zone, Hilly Zone, and Coastal Zone. The focus of this assessment is on the impact of stresses and shocks in the Dry Zone where individual farming communities' experiences are notably different due to the social, economic and environmental dynamics particular to that zone. Mercy Corps utilizes the STRESS methodology to develop an evidence-based TOC for resilience building for Dry Zone communities in Myanmar. The STRESS methodology was adapted by Mercy Corps in this context in the following way:

Figure 8 – Zones of Myanmar

Phase 1: Scope

Mercy Corps collected data and existing literature from national-level expert input and qualitative research across nine Dry Zone villages. Data from Phase 1 helped to inform Mercy Corps on the important social and economic characteristics that shape the understanding of the central Dry Zone of Myanmar.

<u>Findings:</u>

- Food insecurity is a primary constraint and is characterized by a reliance on market purchase for food access in a context of low, undiversified, agriculture-based incomes, high debts, and reliance on credit.
- Primary livelihood is climate-related, but more specifically to crop production. Other livelihoods activities include livestock production, industrial labor, government, remittances, and petty trade. Overall, livelihood diversification is poor with a median income source per household of two.
- Primary crops grown are rice, oil, and pulses.
- Livelihood choices and outcomes are significantly impacted by a community's access to water sources for crop production and markets.
- Primary shocks and stresses include:
    - *Land degradation* where the central Dry Zone is increasingly susceptible to desertification due to a combination of deforestation, erosion and salinization
    - *Erratic rain*, where high variability has resulted in recurring shocks of both drought and floods
    - *Pest and plant disease*
    - *Unsupportive agricultural policies* that have inflated input costs and lowered *kyat*[35] prices for exported outputs by maximizing the production of paddy

[34] Mercy Corps. 2015. The Dry Zone of Myanmar: A strategic resilience assessment of farming communities. Please see the Supplementary Annex Volume 2 for the complete case study material.
[35] Myanmar's currency is the *kyat*.

crops to keep prices and availability of rice low; farmers also restricted in crop selection
- *Land insecurity* driven by land confiscation due to debt, dispute, or industrial agricultural development, and by land disputes as a result of poorly defined ownership and indebtedness
- *Poor access to quality inputs* such as seed, fertilizer, pesticide and labor, largely due to inhibited and irregular farm incomes
- *Price variability* where farmers in the Dry Zone are exposed to export price instability and intra-annual price fluctuations
- *Indebtedness* where low profitability, undiversified production and report exposure to environmental and market shocks have deepened the cycle of debt

Overall:

The individual impact of and interactions between erratic rain, unsupportive policy, land degradation and poor access to quality inputs contribute to the vulnerability of farmers in the Dry Zone. The central linkage between these stresses and shocks is the use of credit. Unmanageable household debt over time and in conjunction with shocks are most likely to manifest in households engaging in negative coping strategies that not only degrade the environment but reduce productivity and access to emergency lines of credit.

Phase 2: Inform

An impact analysis was conducted to assess the perceived impacts of identified shocks and stresses on livelihood and coming strategies most commonly employed. Farming communities were divided into three categories based upon water and market access conditions:

- Poor: living more than 25 miles from the township capital and using 0 to 30% irrigation water
- Medium: living 10-25 miles from the township capital and using 30-70% irrigation water
- Good: living less than 10 miles from the township capital and used more than 70% irrigation water

A key has been developed to rank the impact of each category of shock or stress from one to 27 based on three factors: trend, magnitude, and severity, with each factor receiving a ranking between one and three (see Table 5). The overall sensitivity ranking for each type of strategy is the sum of all the impact rankings from individual shocks and stresses.

Table 5 – Shock and stress impact ranking key – The Dry Zone of Myanmar

	1	2	3
Trend	No changes	Magnitude or severity increasing	Trend is increasing and being exacerbated by 2 or more other shocks/stresses
Magnitude	Less than 1/3 of the community affected	1/3 to 2/3 of the community is affected	More than 2/3 of the community is affected
Severity	Subjective ranking of potential for harm (low, medium, high)		

Findings:

- All three communities ranked indebtedness as one of their highest impacts
- Poor and medium communities are more sensitive to environmental shocks and stresses where they additionally rank land degradation and erratic rainfall as high impact shocks. Rich communities rank poor access to quality inputs and price variability highly.
- The most sensitive coping strategy for all types of communities is the ability to invest in productive assets. This strategy is most sensitive to land degradation, indebtedness and erratic rainfall in poor and medium communities.
- Laborers, were also asked to rank their sensitivity to shocks and stresses and it was found that price variability and indebtedness ranked highest among this group

Phase 3 and Phase 4: Analyze and Strategize

The impact analysis narrowed down the developmental strategy for the Dry Zone into three outputs under the absorptive, adaptive and transformative resilience capacities:

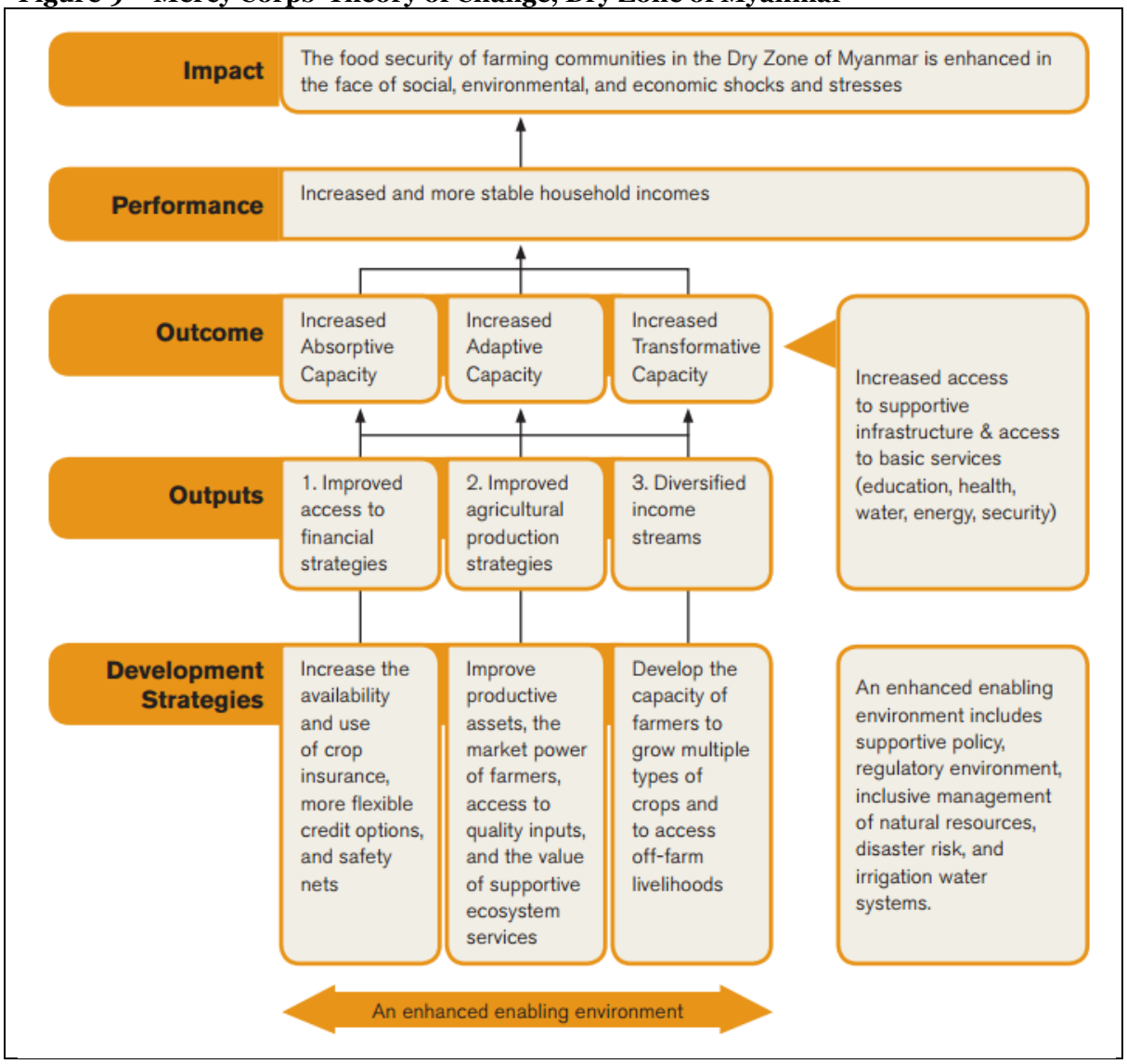
1. Increased use and flexibility of financial strategies (Adaptive)
2. Improve agricultural production strategies (Absorptive)
3. Diversify income streams (Transformative)

However, different types of communities in the Dry Zone experience shocks and stresses with varying effect and as such, developmental efforts should be tailored to fit the needs of the communities. For poor communities, the focus of the development strategy should be to increase access to flexible loan options, promote low-cost strategies that protect and improve productivity of primary environmental assets, and increases access to off-farm or complementary livelihood options. The focus for rich communities should be to increase opportunities for income diversification and increase market power with support for improved technical capacities and investment in productive assets. The strategy for laborers should be to increase access to flexible credit options and opportunities for off-farm income diversity and investment in productive skills.

Mercy Corps' Theory of Change:

If we build absorptive, adaptive and transformative resilience capacities at the individual, household and community levels to better manage environmental, governmental and market-based shocks and stresses, then the well-being of farming communities in the Dry Zone will be improved.

Figure 9 – Mercy Corps' Theory of Change, Dry Zone of Myanmar

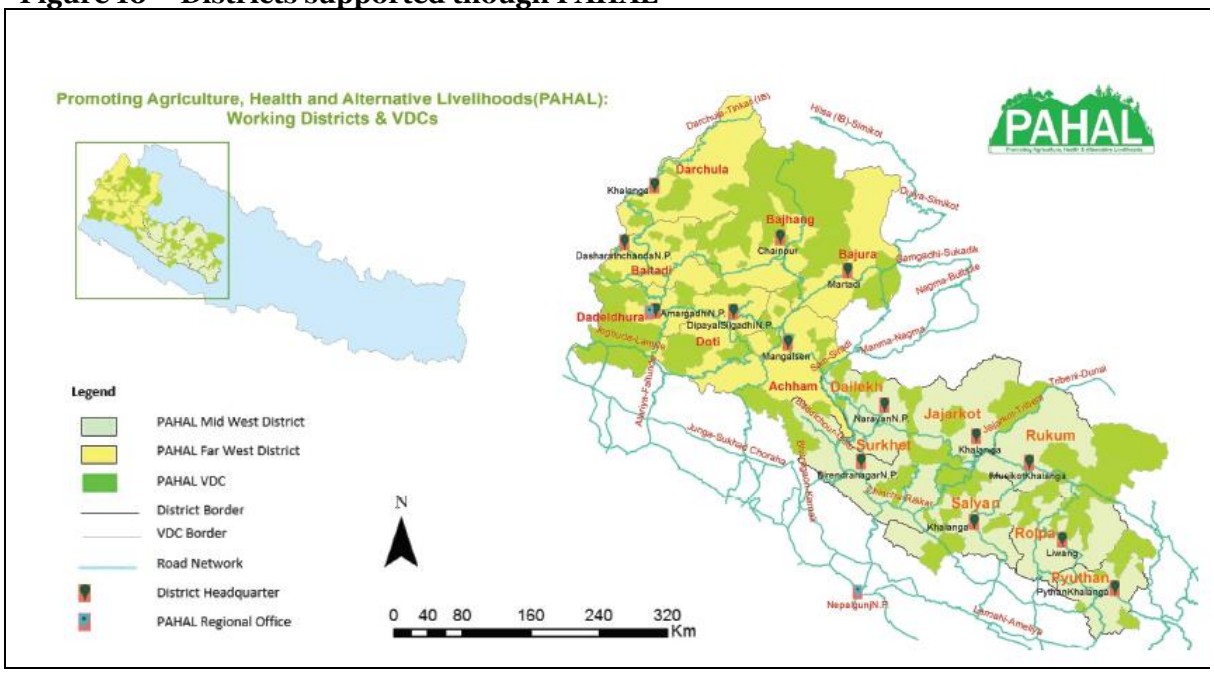


Case Study 2: Nepal's PAHAL Program – STRESS Report[36]

Background: Nepal's PAHAL program was designed to achieve food security among vulnerable populations in the hill and mountain regions of Midwestern and Far West Nepal through a resilience approach (See Session 1.3b for a brief description). The PAHAL team used the STRESS approach of the target areas in order to develop a resilience-specific program TOC. STRESS analyzed (in collaboration with a range of actors) the dynamic social, ecological and economic systems: (1) within which communities are embedded, and (2) how these conditions determine vulnerability to shocks and stresses, and therefore, food security.

[36] Mercy Corps. 2015. PAHAL Program – Strategic Resilience Assessment (STRESS) Report. Please see the Supplementary Annex Volume 2 for the complete case study material.

Figure 10 – Districts supported though PAHAL



The process included four phases:

Phase 1: Scope

Preliminary literature review to set the assessment parameters and identify core research questions. During the scoping workshop, the PAHAL team and Mercy Corps technical advisors established an initial understanding of the program area's social, economic and ecological context through systems mapping. The team articulated the rationale and objectives of the STRESS, identified knowledge gaps and lines of inquiry and designed research methods.

Phase 2: Inform

A total of 64 FGDs were conducted in selected Village Development Committees (VDCs)[37], the major local administrative unit in Nepal, with groups of mixed-caste men, mixed-caste women, marginalized caste men and marginalized caste women in order to assess communities for vulnerability, preparedness and response to shocks and stresses, resources access and control, and networks and institutions. KIIs were conducted among 28 community members, 30 government officials, and 23 market actors in selected VDCs and district capitals to inform how they impact decision and action among households, government institutions and markets. In tandem, a team in Kathmandu conducted a secondary data review.

<u>Findings:</u>

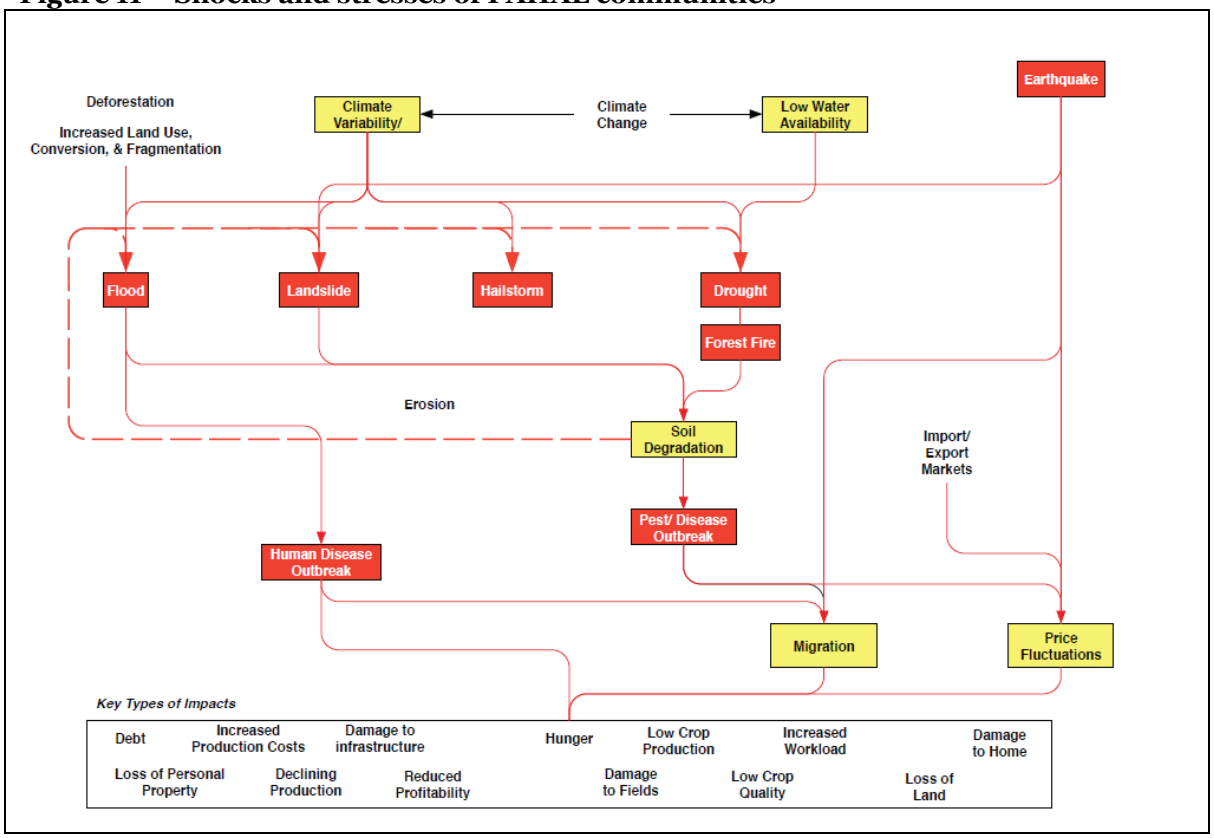
[37] Field data collection began with determining vulnerability criteria at district, community and household levels. At the district level, survey areas were selected to offer variation in agro-ecological zones and remoteness. After districts were selected, a range of VDCs were selected based on access to road head, capitals, and vulnerability to disasters.

Shocks and stresses for communities in the PAHAL intervention area are interrelated, with climate as the most important driver in the regions. They include:

- Low water availability and drought
- Floods, concentrated in July and August at the height of the monsoon season
- Agricultural/Livestock pests and disease
- Human disease outbreaks
- Heavy rain and hailstorms
- Forest fires
- Migration where almost half of all households in Nepal have either a current or former migrant
- Food price fluctuations due to erratic market prices related to the areas poor connection to major roads and high transportation costs
- Earthquakes, although infrequent, are prone to this area, with one most recently occurring on April 25, 2015 in Gorkha

Since most people in the PAHAL area depend on agriculture for food and income, these shocks and stresses are a primary concern to food security where they have an impact food availability, accessibility, and utilization. Farmers are not able to produce enough for their own consumption or for sufficient income, which is intensified in times of shocks and stresses. Food availability is limited due to a number of constraints such as poor quality inputs, poor road infrastructure, migration, poor governance, social inequality, etc. In the face of larger shocks, local and regional market prices are impacted, which raise the cost of food. The impact of food utilizations can cause immediate and lasting health problem which in turn inhibit labor productivity and limit agricultural production.

Figure 11 – Shocks and stresses of PAHAL communities



Phase 3: Analyzes

PAHAL conducted an analysis of field results and literature review via debrief workshop with assessment team leads.

Findings:
The STRESS process helped identify a set of six absorptive and adaptive capacities which communities must have access to build resilience in the PAHAL program context:

- *Quality health and nutrition services and information*, which can reduce household risk related to human disease epidemic and support households to shift their reliance on rice and grow more vegetables for a more nutritious diet
- *Enhance WASH services, strategies and technologies* to prevent disease epidemics and improve nutrition outcomes
- *Effective disaster risk reduction and climate services, strategies and technologies* to help communities prepare for and cope with regular floods, landslides, forest fires, droughts and earthquakes
- *Appropriate and diverse financial services and products* to keep markets going in times of shocks and stresses and allow households to adapt to shifting social, economic and ecologic conditions
- *Dynamic and responsive agricultural and non-agricultural markets*, allowing households to diversify their income sources
- *Productive natural resources an resource management systems* leading to more productive soil and improved water availably, which in turn improves incomes, reduces incentives for migration, increases savings and credit potential and supports improved conditions for water, sanitation and hygiene

PAHAL focused on these four transformative capacities:

- *Increased participation, agency and voice of vulnerable groups in governance processes*, especially in system that only afford rights, privilege and position of power to upper caste
- *Enabling rules and regulation* related to formal financial institutions , the Forest Act, and actions of the District Disaster Relief Committee (DDRC)
- *Enabling knowledge systems, attitudes and perceptions across community, private sector and government institutions*
- *Social capital across diverse community groups, private sector stakeholders and government institutions*, where bonding social capital has been shown to be a strong deterring factor for resilience in PAHAL areas

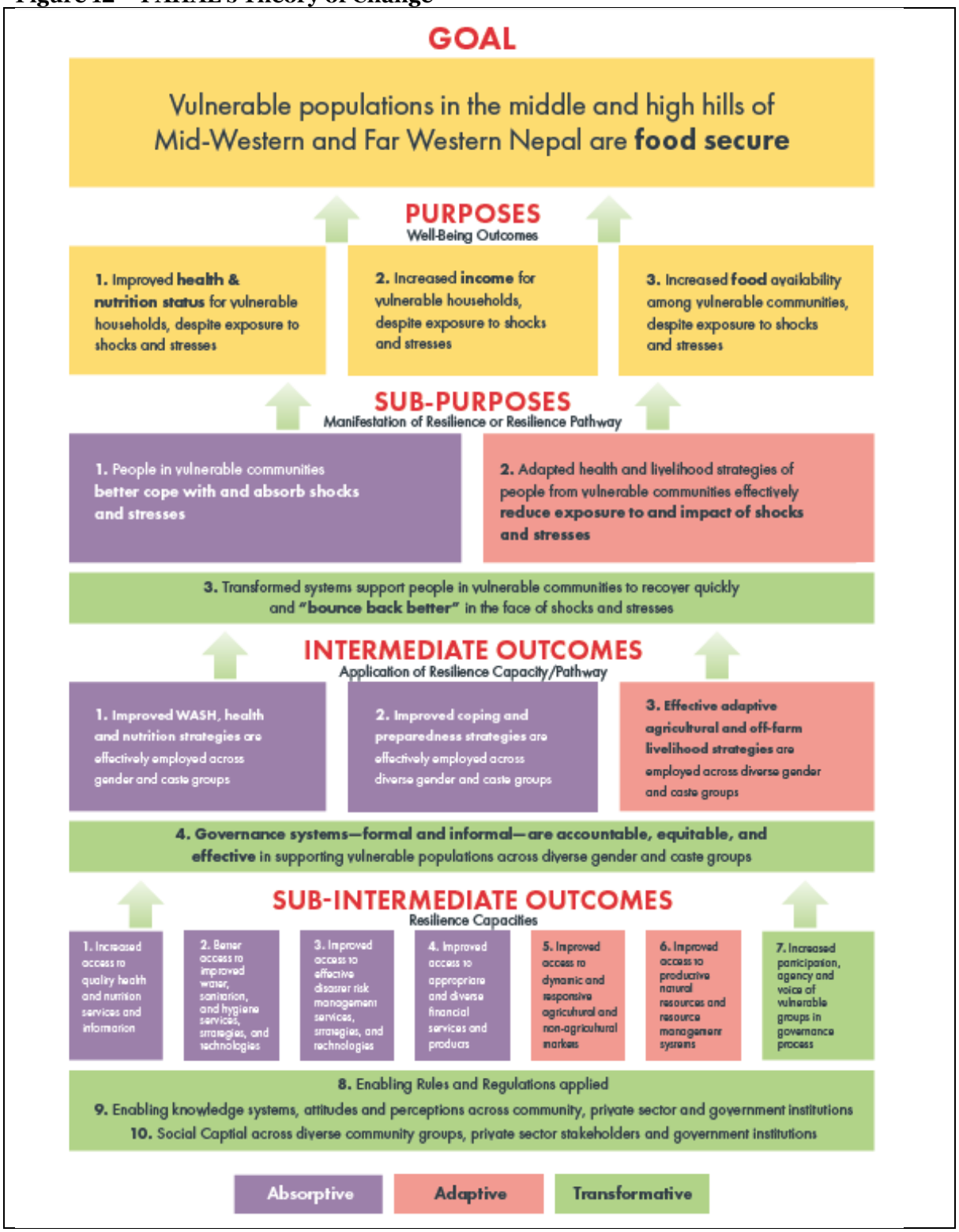
Phase 4: Strategize

TOC was revised from the STESS process and directly informed the log frame, indicators and work plan structure.

PAHAL's Theory of Change:

If vulnerable women, men, girls, and boys have increased absorptive and adaptive capacities and are able to act within an equitable and inclusive enabling environment, then individuals and communities will be more resilient to the shocks and stresses that impede food security (See Figure 12).

Figure 12 – PAHAL's Theory of Change



The case studies in Session 2.2 are illustrative to participants to show how the four phases in the STRESS approach are useful to design a Theory of Change which is necessary for resilience programming.

Session 2.3a: Resilience Assessment Qualitative Tool Development

A brief review of common qualitative tool techniques is provided prior to the fieldwork (Session 3).[38] In mixed methods design, qualitative methods are designed to complement the results from quantitative techniques by providing confirmation and explanation of quantitative results or 'triangulation' (see also Session 4.1). [39]Another way qualitative methods are complementary is by providing new perspectives on quantitative findings, new hypotheses, and specifications for estimation equations. In addition, the qualitative research provides opportunities for in-depth investigation of underlying social factors that explain the results derived from the quantitative analyses. This section describes the methods/techniques, sampling, data collection, and data analysis strategy for the qualitative component.

Methods: Qualitative researchers gather data from separate focus groups of men and women, and from sub-groups of interest as appropriate (e.g., youth, unemployed people, participants in the Tonlé Sap/Preylong Region). A brief description of additional participatory tools (Venn diagrams, transect walks, wealth ranking and, visits to individual households) is also provided.

Specific research methods likely to be used during qualitative fieldwork include:

Focus group discussions: The teams will conduct focus group discussions (FGD) among groups representative of the primary livelihood systems and wealth ranking categories in the particular communities under study. The teams will make an effort to limit the size of FGDs to 8-10 individuals, and to ensure that participants are representative of different groups within the community (youth, elderly, poor, better-off assets, etc.). Separate focus groups are conducted with male and female respondents in each community. Focus group facilitators are guided by the topical outline (to be developed in Session 2.3b) but should remain flexible in time and structure. FGD discussions will include the nature of shocks and stresses experienced by the community and common responses to them. Particular emphasis will be given to individual and household engagement with formal and informal institutions and factors influencing the community's capacity for collective action.

Key informant interviews: The team will also conduct key informant interviews (KIIs). Key informants will be selected based on their special knowledge of some aspect of the population being surveyed.[40] KIIs often have a broader perspective when compared with focus group participants and can provide greater contextual information that will inform the data analysis. KIIs are typically held with the community's legal, political and/or customary leaders and authorities. They may also include individuals noted for their unique perspective and/or high degree of vulnerability, such as widows, educated girls, ethnic minority leaders, elders, teachers, and health post attendants. Key informant interviews should result in the development of more detailed community profiles and a wealth of information useful for cross-checking information gained in other stages of the research. Potential themes to

[38] These qualitative tool techniques are drawn from common practices in resilience monitoring and evaluation practices.
[39] As part of Module 1, participants will have received secondary data (See Annex 5 – Cambodia background material) to complement the primary data collected in Session 3 to 'triangulate' in lieu of the collection and the analysis of quantitative data.
[40] Assistance will be provided by the Rice Field Fisheries Enhancement Project (RFFEP) staff in conjunction with the personnel of USAID – RDMA (See Session 3).

explore with key informants include changes in government policies or programs; natural resource management practices; market dynamics; link between livelihoods and the environment; community social capital and relations with neighboring communities; lending activity; spillover effects of other development projects, or social and economic characteristics of particular groups.

More examples of potential key informants include: local level government officials responsible for relevant fishery, agriculture, livestock, and other food security programs; local individuals involved in private fish markets and/or processing; representatives of local financial institutions; providers of public services (e.g., health, education); or local resource persons employed by other development actors in the area.

Two types of participatory techniques that may be utilized in FGD or KII:

- *Venn diagrams* are typically used to identify the institutional relationships in a given community. They are particularly useful for understanding the informal social networks that vulnerable households rely on for buffers from periodic shocks. They may also help to assess the degree to which individuals, households or groups may be empowered, or disempowered by certain institutions, and identify potential conflicts by determining local stakeholders that may be negatively affected by future interventions.

- *Social network analysis* is founded on the recognition that people and communities rarely function in isolation. Research shows that strong social networks contribute to household and community resilience. Social network analysis is useful to understand how individuals, communities or organizations providing services interact with each other. It involves mapping and measuring interactions between actors in the network and in so doing provides insight into the relationship between resilience at various levels within a community. In social network analysis, individual actors or organizations function as a 'node' in the network, and different types of 'lines' represent relationships between actors in the network. Often these actors and relationships are visualized through the use of a network map. In a network map, there are various ways to depict both actors and relationships.

- *Resilience ranking exercise:* Qualitative ranking exercises are typically used to collect objective information on individuals' opinions and ideas related to certain themes. The purpose of a resilience ranking exercise is to ascertain community understandings and definitions of resilience, including the individual components of (or factors contributing to) resilience at the household level. Once the participants of a ranking exercise are facilitated to reach consensus on the indicators of resilience, these indicators will then be ranked according to their relative importance / impact on household resilience. Finally, community participants will be asked to consider these indicators carefully when estimating the relative proportion of households that fit into distinct resilience categories (i.e., highly resilient, somewhat resilient, not resilient/chronically vulnerable).

Direct Observation: Direct observation of community surroundings and activities during field visits is a valuable method of collecting important information on the local context, community practices and physical features within the intervention area without introducing bias or having to solicit direct participation of community members. For the baseline study,

important indicators of household and community resilience are gained from observing poverty status, livelihood practices, demographic/population characteristics, quality of housing and infrastructure, and access to natural resources.

Positive Deviance Inquiry: Positive Deviance Inquiry (PDI) is used to explore existing capacities and resources in the community. The positive deviance approach differs from many approaches in that, rather than focusing on challenges and needs, it instead seeks to identify and optimize access to existing resources and solutions within the community to solve common problems. In essence, a PDI involves an in-depth study of households or individuals whose behaviors and practices enable them to maintain greater resilience in the face of shocks and stresses than most of their neighbors. In order to ascertain the factors that differentiate positively deviant respondents from others, it is important to collect information on relatively intangible contributors to resilience including family history, social background, educational level and adoption of new skills, technologies and practices. Identification and interviewing of positive deviants is opportunistic based on information gained through KIIs and FGDs.

Sampling: In a mixed methods resilience study, qualitative research is typically carried out among a sub-set of communities included in the overall quantitative sample. Communities are selected to represent diverse livelihood risk profiles (e.g. agriculture, livestock producers, private sector development, and livelihood that reduce risk from drought-related and other shocks) (See Session 3)

Data collection: Qualitative interviewing teams should be gender-balanced, multidisciplinary, and will include key staff from USAID RDMA offices as well as implementing partners. It should be noted that qualitative skills are quite different from those required of enumerators in formal surveys, and the selection and training of qualitative researchers is critical (see the general skills needed in Figure 13).

Figure 13 – Qualitative researcher interview skills

- ✓ Excellent interpersonal skills
- ✓ Excellent listening skills
- ✓ Open attitude
- ✓ Ability to formulate questions in a non-leading manner
- ✓ Capable of tactfully asking questions about sensitive topics, such as violence or coping strategies, etc.
- ✓ Ability to handle group dynamics
- ✓ Ability to adapt on the spot
- ✓ Ability to reflect and summarize

Analytical competence

Data analysis: The information obtained from the qualitative interviews will be analyzed by first summarizing the narrative responses and placing responses into a smaller number of relevant categories. The summarized responses will then be placed into matrices, broken down by topical outline items, types of respondents, and categories of responses. This process helps to identify key themes and trends, and it ensures that analysis of qualitative data provides complementary explanations of results arrived at through secondary literature analysis and quantitative methods (see Session 4.1 for an introduction to data analysis using data collected in Session 3).

Small group discussion: Follow the instructions and prompts of the facilitator. In small groups discuss the follow questions:

- *Which standard and innovative qualitative data collection tools/techniques and methods can be used for resilience programs at baseline, midterm, and endline?*

- *How do you analyze data collected on resilience indicators and evaluation questions? What are the strengths and limitations of each method used for analyzing data?*

Session 2.3b: Qualitative tool development for the Tonlé Sap Plain area

In order to prepare the participants to collect data in Session 3, the formation of topical outlines used to facilitate FGDs and KIIs are particularly dependent on knowledge of the local context. The physical and social environment in which households and communities reside is key to asking questions that will capture the nuances of resilience capacities and responses. In order to design tools that are context specific, participants are provided information on the interplay between climate change shocks and stresses, population changes, and health outcomes preceding information specific to the Tonlé Sap Plain so tools are appropriate and relevant to the communities in the area. Session 2.3b provides a summary of the Tonlé Sap/Preylong Region (see Annex 5 – Cambodia background material for additional information).

Figure 14 – Changes events, demographic changes, and implications on health*

Communities in Asian are exposed to a myriad of sudden shocks and low-impact stresses which are influenced by and which influence changes in populations and in turn impact the health and wellbeing of millions of people.

Catastrophic events (e.g., earthquakes and tsunamis) are infrequent but they are principal causes for the majority of deaths linked to natural disasters in the region. Conversely, trends indicate a higher frequency of floods and storms which may cause less damage are experienced by more households and communities. Droughts, heat waves, tropical cyclones, and dust storms and other climate changes also impact various regions. Climate variability occurs from both El Niño and El Niña events as well as from climate change events which may influence and intensify each other.

Natural disasters account for enormous human losses and damages to physical assets. Nearly 90% of the population of the region have been affected by disasters (1970-2015). In the last 45 years, economic losses due to natural disasters have multiplied by 15% while GDP has increased by only 5%, indicating the need to build resilience across different levels.

Responses to changes in climate events are affected by demographic patterns which have implications for resilience. Managing changes in demographics (e.g., areas with large youth or high aging populations) can impact patterns in migration, for instance. Rapid urbanization is encouraging the creation of megacities while emptying rural areas of productive populations. Such demographic changes can expose vulnerable communities to disaster risks.

Health outcomes related to climate events and rapid population changes include changes in debilitating illnesses (e.g., heat stress and decreased productivity), access to resources (including potable water and safe food needed for adequate nutrition), climate-sensitive diseases (e.g., vector borne diseases, spread of epidemics), environmental changes (e.g., air quality) and their effect on respiratory diseases.

*Note: Some of the information in Figure 14 pertains to Asia and the Pacific but is used in this curriculum to demonstrate wider trends in the region; for a complete reference list, see Session 2.4

Tonlé Sap Area:[41]

Over 1.7 million people live in the Tonlé Sap area. There are 1,555 villages with 80 percent of them being rural. Demographically, the area is dominated by youth where the two largest age groups are between 15-19 year and 20-24 years. An estimated five percent of the Tonlé Sap population lives in the lower floodplain or fishing zone and 60 percent live in the upper floodplain, or agriculture zone. [42]

Figure 15 – Cambodia's Tonlé Sap area

The Tonlé Sap Plain is characterized by rich wetlands that have been designated as the world's most productive ecosystem due to the huge reserve of renewable resources available, e.g. water, forestry, and fisheries. It is often considered the food basket of the country because of its contributions to national economy, livelihoods, and food security. Freshwater fishing and agriculture are major activities in this area. However, habitats of the Tonlé Sap have diminished over the years due to deforestation, water pollution, and overfishing leading to both decreased fish sizes and catches.

Climate change has also had an impact on agricultural development. Although the Tonlé Sap Plain area is affected by floods several months of every year as a vital part of its natural cycle, it is projected that rainfall will increase during the wet season and remain unchanged or lower in the dry season. This results in more flooding in the central agricultural plains, which in turn has devastating consequences for crops, livestock and fisheries, transport and infrastructure, housing and health. The frequency of droughts, in conjunction with floods, has also increased over the last decade as temperatures steady rise. Rice farming is significantly affected by droughts and floods producing low yields and consequently affecting food security of these rural communities, especially among the poor.

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[41] Sources from the Supplementary Annex Volume 1 unless otherwise noted (see Annex 5 – Cambodia background material).

[42] It should be noted that the Population Censuses of 1998 and 2008 are the first demographic datasets collected in Cambodia since the 1960s, thus providing an opportunity to look at key demographic and socio-economic trends in the country. See Kingdom of Cambodia, National Institute of Statistics. 2008 and Kingdom of Cambodia, National Institute of Statistics. 2002.

Adaptation strategies utilized in response to shocks and stresses include diversification of farming practices, community management of natural resources, and bonding social capital between close family relations. Micro credit (both cash and rice) is also accessed by many villagers during stress and shock in order to pay for emergencies, diversification or to open small shops. However most rural household lack capital formal loans and resort to middlemen or richer villagers for loan access. Other key strategies include wage labor and labor migration. It is estimated that 30-50 percent of households migrate to other provinces, Phnom Penh or other neighboring countries (Thailand, Vietnam) or Malaysia. Young women above the age of 18 predominately migrate but run the risk of being trafficked.

A large bulk of the food production in the country is carried out by rural women, estimated around 80 percent. However, their contributions are underappreciated as 78 percent of them work as unpaid workers for their family farms. This also points to greater gender imbalance where women have limited access to financial resources, land, natural resources and development services; have negligible participation in decision making; and are not involved in the distribution of environmental management benefits. Consequently, women are less able to confront vulnerabilities associated with climate change.

Education: Siem Reap Province[43]

Educational attainment of the female household population age 6 and over

- No education: 26.3%
- Some primary: 47.8%
- Completed primary: 4.8%
- Some secondary: 17.0%
- Completed secondary: 2.0%

Educational attainment of the male household population age 6 and over

- No education: 20.1%
- Some primary: 47.9%
- Completed primary: 5.1%
- Some secondary: 19.3%
- Completed secondary: 4.5%

Net attendance ration of primary school-aged children

- Males: 78.8%
- Females: 82.7%

Water and Sanitation: Rural Households (National)

Improved drinking water source

- During dry season: 60.1%
- During rainy season: 81.4%

Improved sanitation facility

- Not shared facility: 39.7%
- Shared facility: 9.1%
- (Non-improved facility: 51.2%)

Housing Characteristics: Rural Households (National)

- Electricity: 49.2%

[43] National Institute of Statistics, Directorate General for Health, and ICF International, 2015.

- Primary flooring materials
    - Wood planks: 51.1%
    - Palm/bamboo: 23.6%
- Primary cooking fuel – Wood: 84.6%

Wealth Quintiles: Siem Reap Province

- Lowest: 30.9%
- Second: 25.3%
- Middle: 15.8%
- Fourth: 11.6%
- Highest: 16.4%

Infant & Child Mortality: Siem Reap Province

- Under 5 mortality rate: 56 (national: 2.7)
- Infant mortality rate: 40

Fertility: Siem Reap Province

- Total fertility rate: 2.7 (national: 2.7)
- Currently pregnant women age 15-49 years: 5.2%

Qualitative tool development: From the secondary data provided on the Tonlé Sap Plain, participants will need to begin to think about how this information can help guide them to answer the following questions:

1. Resilience of what?
2. Resilience for whom?
3. Resilience to what?
4. Resilience through what?

This will help participants not only identify their audience but also the gaps in their knowledge about their resilience capacity. This will help guide participants to develop questions for their qualitative assessment tools.

Figure 16 provides guiding topics for each of these resilience questions that fit within the STRESS approach. For KIIs and FGDs, these topics can be drawn upon, adapted, and expanded in order to fit the specific context of the area/community of interest.

The sequence of the questions as seen in Figure 16, participants may note, start with factual questions and then lead into questions that require opinions and judgment. Questions also, in general, should begin from the present (*what kinds of shocks is the community experiencing now*) to questions about the past (*what kinds of shocks has the community experienced in the last 5 years?*) or the future (*is your community able to recover from future shocks?)*. Phrase the questions carefully to elicit detailed information and avoid questions that can be simply answered with a 'yes' or 'no' or be sure to add questions that probe after a yes/no question is asked. For example, under community response in Figure 16, the question asks them to describe the actions members of the community are taking to support each other instead of asking "are community members taking actions to support each other?" Topical outlines are intended to help guide the interviews, and as such, probing techniques should be exercised to encourage informants and FGD participants to detail the basis for their conclusions and recommendations. Questions should also maintain neutrality and should not be biased or loaded with the opinion or view point of the interviewer. When

conducting interviews, begin by establishing rapport by providing an explanation of the purpose of the interview, the intended uses of the information, and assurances of confidentiality (for example topical outlines and an example FGD topical outline which aligns with the guiding resilience questions under the STRESS approach, see Annex 4 – Sample qualitative tools).

Figure 16 – Categories of information for qualitative component

Resilience to what? (What types of disturbances are we building resilience to?)

- What kind of shocks and stressors is the community experiencing now?
- In what ways are these shocks/ stressors affecting the entire community?

Resilience through what? (What is being done to build resilience?)

- What are the resilience capacities (absorptive, adaptive, and transformative) that households and communities have? How are households and communities responding to disturbances?
- What actions are members of the community taking to support each other to respond to the shock/ stressor in order to build resilience capacities (absorptive, adaptive, and transformative)?
- Which are successful? Which are less successful?
- Examples of actions may include: savings, investment, decision-making control, disaster preparedness, participation, involvement in community action; access to services, etc.
- Are community leaders effective at organizing support for all members of the community? Why or why not?
- What collective action is the community taking to protect or maintain resources important to the whole community? Which resources and why? How are collective actions interlinked with actions at other levels (i.e., household, region, national, and system-wide levels)?

Resilience of what? (What are we hoping to build the resilience of?)

- In building resilience, what is the geographic target? (includes identification of ecological, administrative, economic boundaries to better target resilience as well as the outcomes such as food security, sustainable natural resources, health wellbeing etc.)
- What elements of the target population are we hoping to increase resilience of?
- What are the desired resilience outcomes for the target population?
    - How food secure are households and communities in the face of a shock/stress?
    - How is your livelihood impacted by the disturbance?
    - Is the market functioning in the face of shocks/stresses? How is price stability affected?
    - Are households and communities building sustainable natural resource management practices?
    - What are the health outcomes in the face of shocks/stresses?
    - Is a community able to achieve social cohesion/peace/tranquility in the face of shocks/stresses? How are social networks and relationships impacted and how can resilience build social capital?
- What are the social, ecological, and economic systems for which resilience needs to be built? (e.g., networks, ecosystems, market systems etc.)

Resilience for whom? (Whose resilience are we trying to build? Who are we building resilience for?)

- Who is the target population in the resilience programming? How do social rules and norms and cultural attitudes affect the resilience capacities of different groups? (These may include vulnerable groups, rural populations, marginalized communities and should include questions on gender, race, age, ethnicity, and caste).

Small Group Exercise: Follow the instructions and prompts of the facilitator. Participants will be separated into groups. Each group will review the example KIIs and FGD provided in Annex 4 – Sample qualitative tools and develop topical outlines for KIIs and FGDs to be used in the field during Session 3. Groups can use the template below to help guide them as begin to think about their intended audience and the purpose/objective of the KIIs or FGD.

Table 6 – Exercise prompt to design qualitative tools

Who is your audience?	What are your objectives? What is the purpose of the KII or FGD? What type information do you wish to elicit?	What are your questions for the topical outline?

Session 2.4: Wrap-up

This session allows time for the facilitator and participants to summarize the key objectives and discussion points of the Session:

- *What are the most important considerations in resilience-focused assessment approach? Which qualitative (and quantitative) data collection tools and methods can be used for resilience programming and how can data from resilience indicators and evaluation questions be analyzed?*
- *[Participants, please refer to Annex 6 – Module 1 Evaluation Form to provide insight on experience for Session 2]*

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SESSION 3: FIELD PRACTICE IN THE TONLÉ SAP/PREYLONG REGION

Session 3.1: Application of assessment approaches and measurement techniques to specific problems

Participants will travel from Siem Reap to the Tonlé Sap area in the Preylong Region and apply assessment approaches and measurement techniques to specific problems. Participants will have the opportunity to apply the lessons learned from resilience concepts and measurements (Session 1) through the use of the qualitative tools (Session 2). The goal of Session 3 is to have the opportunity to put the STRESS approach into practice (specifically Phase 2 – Inform, see Session 2.1). In doing so, participants will be able to complete the first two phases of STRES (Phase 1 – Scope and Phase 2 – Inform) from the a)secondary literature review (pre-training through the factsheet on the Tonlé Sap area, see below) and b) the fieldwork from Session 3 to gain insight on project-level resilience M&E frameworks for future programming.

Fieldwork will be conducted through the coordination and assistance of the Rice Field Fisheries Enhancement Project (RFFEP). The goal of RFFEP is to protect fish populations through sustainably strengthening field fisheries and building community fish refuges.[44] This is to be obtained by improving management practices of local communities in Cambodia.[45]

Fieldwork will include a visit to three to four communities. Participants will be divided into groups and will receive more detailed instructions once specific sites have been selected. For the collection of primary data in the field, participants will be instructed to:

- Gain informed consent (see Supplementary Annex Volume 2)
- Protect anonymity of respondents; and
- Gain permissions and procedures from the USAID Mission

For additional information on the Tonlé Sap area, please see Annex 5 – Cambodia background material.[46] Annex 4 – Sample qualitative tools

Session 3.2: Wrap-up

This session allows time for the facilitator and participants to summarize insight gathered from application of resilience concepts and principles and the design of resilience indicators in the field practice.

- *[Participants, please refer to Annex 6 – Module 1 Evaluation Form to provide insight on experience for Session 3]*

[44] Brooks et al., 2015.
[45] See http://www.vsgcambodia.org/rffe/
[46] It is expected that participants will have reviewed the secondary data in the Supplementary Annex Volume 1which is summarized in Session 2.3b prior to the beginning of Session 2 in preparation for the qualitative tool development to be implemented in Session 3 to ensure efficiency given the time constraints of the workshop.

Session 3 References:

- Village Support Group (VSG). 2015. Rice Field Fisheries Enhancement Project.
- Brooks A, Kim M, Sieu C, Sean V and Try V. 2015. A characterization of community fish refuge typologies in rice field fisheries ecosystems. Penang, Malaysia: WorldFish. Handbook: 2015-37.

SESSION 4: PRACTICAL ANALYSIS OF KNOWLEDGE AND CONCEPTS

Session 4.1: Introduction for Analyzing Qualitative and Secondary Data

After the primary data is collected in Session 3, participants will be guided to analyze the primary qualitative data and triangulate the findings with the secondary data.

Qualitative data management and analysis: To guide the analysis of primary and secondary data, participants may find it useful to devise a matrix to organize their notes from the primary data collection. Please see Annex 3 – Sample data management tools for a sample matrix that should be adapted based on the research questions for this field practice.

The matrix approach ensures that all team members are recording information consistently and in a manner that directly responds to key research questions. Capturing qualitative data in matrices enables identification of important patterns in responses and specific contextual information that helps to explain quantitative data (in this case, secondary data). Developing qualitative data matrices also allows responses from different stakeholders and data sources to be triangulated to determine whether information is reliable and representative of the project area. Data in qualitative matrices can be compared to identify differences in perception between groups based on gender, location, social or economic status. Before analysis of qualitative information can begin, the data should be aggregated into matrices at a level that makes sense such as by province or project area and respondent type (e.g., male/female).

It should be noted that this approach to qualitative data analysis does not use a coding scheme nor rely on analytical software to search for key words, thus meaning the researcher must perform the conceptual work. In this case, the researcher reads through the matrices multiple times, identifies emerging themes and categories, revises and tests these patterns against the primary and secondary data, and finally draws conclusions around the research questions.[47] While studies are designed to test hypotheses (deductive research), researchers should also be open to developing new hypotheses based on the data gathered (inductive research).

Another analysis technique is to pay attention to the outlier voices, those that don't agree or fit with the emerging pattern and to explore why. Negative case analysis, for example, highlights evidence that disconfirms the hypothesis, such as what factors are assumed to contribute to greater resilience capacity.[48] While positive deviance enquiry, on the other hand, explores the evidence from those cases that perform better or overcome a problem without special resources; for instance, exploring the factors related to how certain community members have recovered more quickly from shocks than others faced with the same challenges.[49] (Of course, without statistical testing, these forms of qualitative analysis cannot state whether some cases are significantly different than others.)

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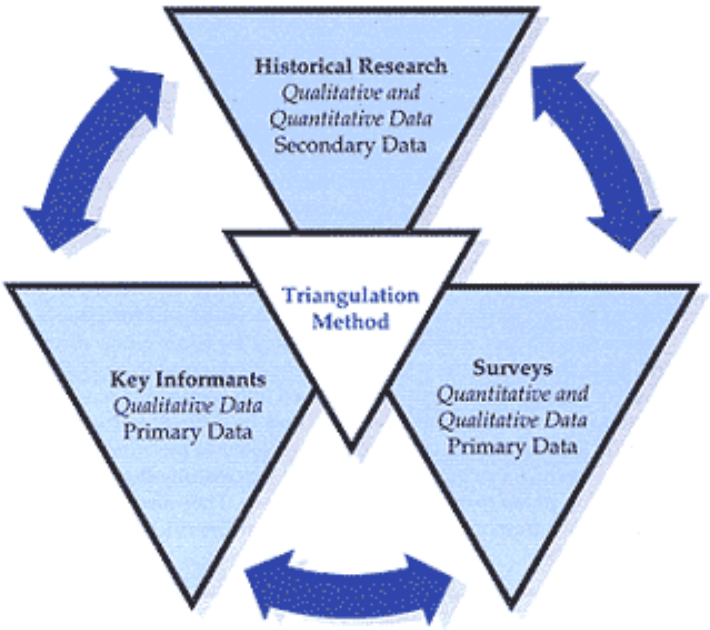
[47] Judd et al., 1991.
[48] Ibid.
[49] Positive Deviance Initiative, 2010.

Triangulation refers to analysis comparing findings from three or more data sources. Triangulation is using data from three or more sources so that if two are inconsistent, a third provides a tie break between the other two. More generally, it refers to the use of multiple sources, observers and methods of data collection to ensure that the issue at hand is seen through more than the biased single lens. The analysis involves comparing these sources and identifying where there is agreement or not.

Your analysis will clearly show how key findings from the qualitative data agree/disagree both internally, with the other primary data or similar interviewees (a.k.a. internal coherence),[50] and externally with the secondary data (used in place of quantitative data), or with your field observations. The points of the triangle vary depending on the data you have gathered, but a simple graphic for this is shown below.

Figure 17 – Triangulation method



Source: http://eddiejackson.net/web_images/triangle.gif

Individual Exercise Instructions:

1. **Transfer notes**: Transfer field notes for each interview into a matrix with legible key points, quotes and observations from the interview.
2. **Aggregate**: Aggregate matrices at a level that makes sense for the research questions.
3. **Analyze**: Based on answering the research questions, analyze the aggregate matrices for consistency (or lack thereof), patterns and trends in responses, as well as for outlier voices. List these initial findings.
4. **Triangulation**: Next, note for each qualitative finding how this agrees or disagrees with other data sources, including: secondary data, program reports, and field observations.

[50] Bergman and Coxon, 2005.

5. **Conclusions**: Draft conclusions based on the findings of this analysis, noting areas for further study and information gaps.

Small Group Discussion:

- *What do these findings (from field practice) tell us about the resilience capacities and responses, vulnerability, and well-being of target communities as well as the shocks/stresses of the community?*
- *What do the findings mean for resilience programming?*

Session 4.2: Introduction to Impact Evaluation (IE) Study Design

While Module 1 focuses on the qualitative component of a resilience framework and will focus on the STRESS assessment during Session 2 and Session 3, participants will also receive information on the makeup of an impact evaluation (IE) to be developed at later stages of programming. The IE described in this session is that of the Resilience in the Sahel-Enhanced (RISE) Project Impact Evaluation.[51] The discussion in this section will include an outline of an IE protocol (with a quantitative component) as well as the research questions used for the RISE baseline to demonstrate an IE resilience study.

What is an impact evaluation? USAID's Evaluation Policy (2011) defines an impact evaluation (IE) as the following:

> "Impact evaluations measure the change in a development outcome that is attributable to a defined intervention; impact evaluations are based on models of cause and effect and require a credible and rigorously defined counterfactual to control for factors other than the intervention that might account for the observed change. Impact evaluations in which comparisons are made between beneficiaries that are randomly assigned to either a treatment or a control group provide the strongest evidence of a relationship between the intervention under study and the outcome measured."

Similarly, the World Bank[52] describes IEs as structured around one key type of question, "What is the impact (or causal effect) of a program on an outcome of interest?" Thus, with this important causal dimension, IEs are designed to focus only on the impact of the program, in other words, the effect on outcomes that the program directly causes.

An IE does not entail a specific or standard study design, though with a comparison group the studies are typically experimental (e.g., randomized controlled trials) or quasi-experimental.

USAID also explains that most IE designs fit into two categories, prospective and retrospective. Prospective evaluations are developed hand-in-hand with program design and implementation; where the baseline is conducted prior to program implementation for both treatment and comparison groups. Whereas retrospective IEs assess program impact after

[51] USAID. 2016. Resilience In The Sahel-Enhanced (Rise) Initiative Impact Evaluation (Ie) Protocol. For the RISE Protocol, please refer to Supplementary Annex – Volume 2.
[52] Gertler et al. 2011.

the program has ended, formulating the groups ex-post. USAID advises that the strongest evidence is collected through prospective and experimental IE study design.

Timing considerations for data collection: According to Béné, et al,[53] the type of data, along with the timing and frequency of data collection are key considerations for M&E for resilience programming. High frequency monitoring (e.g., monthly, bi-monthly, quarterly) is necessary to explore shock dynamics (often unpredictable), responses, and the impact on individual or household well-being (also see Session 5.2 and Session 5.3 for recurrent monitoring). If the study design desires to track changes in household responses, panel data (i.e., from the same households) are needed at the baseline. An option, though not ideal, are quasi-panel data, which are data collected from the same communities (but not the same households) and the level of analysis is then at the community level. Additionally, the length of time of data collection is another important consideration because the responses to a shock could vary- likely to be increasingly negative responses—over time. Data collection should take place at least 6-9 months after a shock should, and at an even longer time point.

Components of a protocol: The basic outline of a resilience IE protocol is outlined in Figure 18.

Figure 18 – Components of a protocol

A. Study Design
   a. Activity/program description
   b. Theory of change
   c. Research questions
   d. Methodology for quantitative data collection and analysis
   e. Methodology for qualitative data collection and analysis
   f. Primary and secondary outcome measures
   g. Sample frame/design
   h. Additional pertinent information
   i. Work plan
B. Data Collection and Management Plan
   a. Survey training
   b. Data management and security
   c. Institutional Review Board (IRB) approval
C. Survey Instruments
D. Background on IE Team: CV of researchers

Institutional Review Board (IRB) approval: An IRB is an independent, ethics review committee established to monitor and approve research involving human subjects. The IRB aims to ensure that all human subject research is conducted following all federal, institutional, and ethical guidelines. USAID adheres to the Common Federal Policy for Protection of Human Subjects in Research, or the "Common Rule," and follows various other guidance documents to apply the rule around the world (USAID Research Policy, 2014). IRB approval should be sought in country at the appropriate government ministries or ethics boards and also at the institution that is leading the IE. Append documentation of IRB approval to the protocol once it is received.

[53] 2015

RISE research questions: The RISE IE baseline study is provided to highlight the types of research questions that may be developed in the design of a resilience IE study.

The objective of the RISE IE is to provide insight into how the resilience capacities of communities affect the impact of program interventions on key resilience outcomes (income, assets, food security and nutrition) in beneficiary households. Household resilience outcomes are envisioned as depending on the initial level of community resilience capacities and the package of RISE interventions that the respective communities receive. The Resilience and Economic Growth in the Sahel (REGIS)[54] theory of change states that individuals, households, and communities need to be resilient in order for systems to be resilient.

The four RISE IE research questions from mixed-methods data are (from protocol):

1. Does layering multiple RISE interventions into the same communities and among the same households result in greater gains in terms of household and community resilience capacities and household outcomes? (This may demonstrate the ways in which household, community, and system-wide resilience are interlinked).
2. How do RISE interventions interact with existing community resilience capacities to improve household resilience capacities and outcomes?
3. What are the specific aspects of community resilience capacities that most strongly support household resilience capacities?
4. Will interventions designed to improve household resilience outcomes like food security have a lasting impact or are they just a short-term remedy? That is, is the impact brought about by improving household resilience capacities?

Plenary discussion: Follow the instructions and prompts of the facilitator. In plenary discuss the follow questions:

- *How does resilience IE or experimental study design build on the assessments already being conducted by your agencies or country offices?*

Session 4.3: Wrap-up

This session allows time for the facilitator and participants to summarize the key objectives and discussion points of Session 4, related to: What are the main opportunities and challenges for developing resilience IE in this context?

- *Plenary discussion 4.3: What are the main opportunities and challenges for developing resilience IE in this context?*
- *[Participants, please refer to Annex 6 – Module 1 Evaluation Form to provide insight on experience for Session 4]*

[54] The REGIS project is one of the initiatives under the RISE initiative, also under FFP.

Session 4 References:

Session 4.1

- Bergman, M.M. and A.P.M. Coxon. 2005. The Quality in Qualitative Methods. Forum Qualitative Sozialforschung / Forum: Qualitative Social Research, 6(2), Art. 34, May.
- Judd, C.M., Smith, E.R., Kidder, L.H., 1991. "Ch. 13: Qualitative Research: Fieldwork and Participant Observation," in *Research Methods in Social Relations, 6th Edition*. Holt Rinehart and Winston, Orlando, FL: 298-320. [Not available online]
- Positive Deviance Initiative. 2010. Basic Field Guide to the Positive Deviance Approach. Tufts University Friedman School of Nutrition Science and Policy. Boston, MA. September.

Session 4.2

- USAID. 2011. Evaluation: Learning from Experience - Evaluation Policy. Washington, D.C. January.
- USAID FEED the FUTURE. 2015. Ethiopia Pastoralist Areas Resilience Improvement and Market Expansion (PRIME) Project Impact Evaluation. Report of the Interim Monitoring Survey 2014-2015. Prepared by Tim Frankenberger and Lisa Smith, TANGO International. Washington, D.C. November.
- Béné, Christophe, Tim Frankenberger and Suzanne Nelson. 2015. Design, Monitoring and Evaluation of Resilience Interventions: Conceptual and Empirical Considerations. Supported by USAID and TOPS. IDS Working Paper. Volume 2015 No. 459, Brighton, UK. July.
- Gertler, P.J., S. Martinez, P. Premand, L.B. Rawlings and C.M.J. Vermeersch. 2011. Impact Evaluation in Practice. The World Bank, Washington, DC.
- Khandker, S. R., G.B. Koolwal, and H.A. Samad. 2010. Handbook on impact evaluation: Quantitative methods and practices. The World Bank, Washington, DC.
- USAID. 2014. DRAFT Research Policy. February, Washington, DC.
- USAID. 2011. Evaluation Policy. Washington, DC. January.

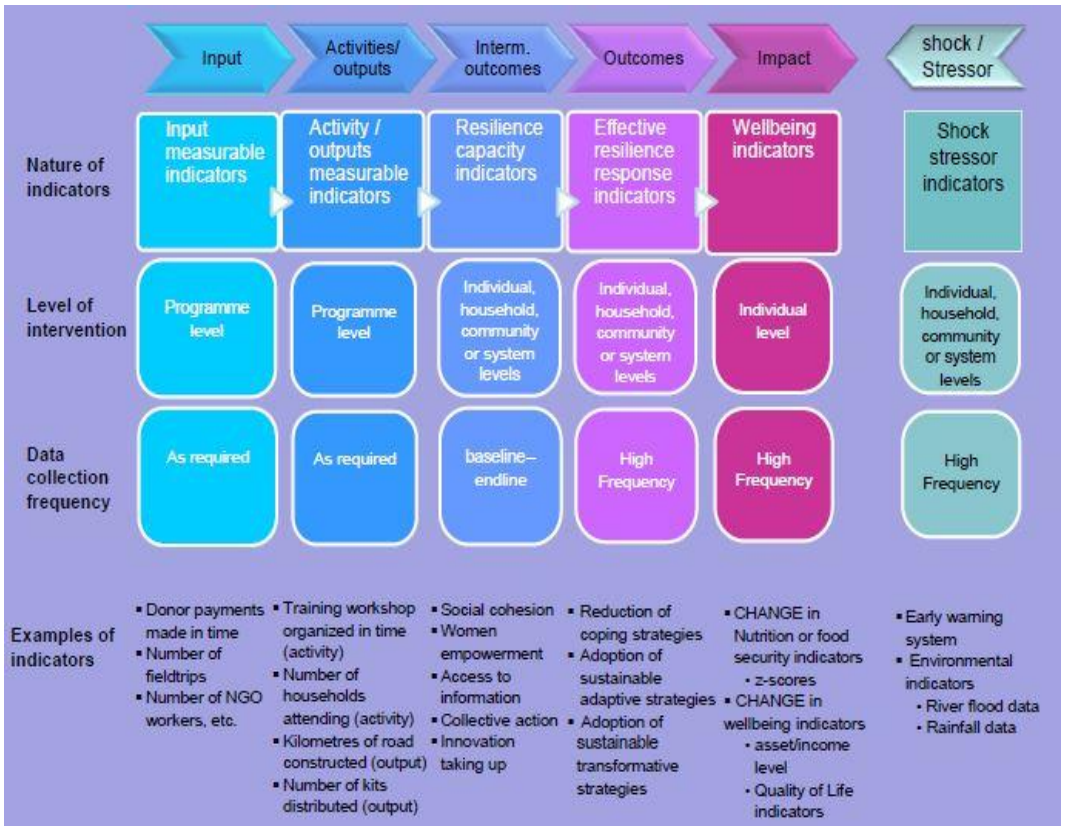
SESSION 5: RESILIENCE RECURRENT MONITORING AND IMPLICATIONS FOR PROGRAMMING

Session 5.1: Introduction to M&E Logical Framework with a Resilience Lens

As part of the introduction to IE resilience frameworks, participants will gain insight into the design of logical frameworks (logframe) intended to capture the goals of future resilience programming in their offices/agencies. The logrfame used to discuss the M&E system of a resilience intervention described in this curriculum is drawn from a paper produced by Béné, Frankenberger, and Nelson.[55] It provides the first step in designing a resilience framework by identifying and then visually illustrating the components of the program. The typical logframe may include the following ordered components: inputs, activities, outputs, intermediate outcomes, outcomes, and impact indicators.

Figure 19 demonstrates an example of the logframe components for a resilience program, including the nature of indicators, levels of interventions, and frequency of data collection.

Figure 19 – Logframe for M&E of resilience programming interventions



Source: Béné, Christophe, Tim Frankenberger and Suzanne Nelson. 2015. Design, Monitoring and Evaluation of Resilience Interventions: Conceptual and Empirical Considerations. Supported by USAID and TOPS. IDS Working Paper. Volume 2015 No. 459, Brighton, UK. July

It should be noted that some of the input and output indicators of a resilience M&E plan are the same as those collected through performance monitoring activities for many programs.

[55] 2015

For instance, an indicator measuring the number of fisher families or farmers who have applied improved technologies or management practices may be used to track progress for a performance monitoring plan (PMP) as well as for an M&E resilience plan.

The indicators for the absorptive, adaptive and transformative resilience capacities discussed above comprise the intermediate outcome indicators of the resilience M&E plan.

The outcome indicators of this logframe example represent effective resilience responses employed by individuals, households or communities such as positive coping and livelihood strategies. Participants should note that the well-being outcomes previously mentioned, for the purposes of this paper's logframe example, are considered impact indicators.

The final component includes indicators for measuring shocks and stressors, which the paper proposes are regularly monitored to truly capture the dynamics of shocks, resilience responses, and effects of the shocks, and then the ultimate impacts on well-being indicators.

Plenary discussion: Follow the instructions and prompts of the facilitator. In plenary discuss the follow questions:

- *How does resilience IE or experimental study design build on the assessments already being conducted by your agencies or country offices?*

Session 5.2: Recurrent Monitoring Surveys (RMS)

Interim monitoring has not yet been conducted in Asia by TANGO International. This section presents an example of interim monitoring completed in Ethiopia as a starting point using the PRIME Ethiopia Recurrent Monitoring Surveys(RMS) methods and findings from 2014-2015:

Background: The PRIME project, funded under the United States government's Feed the Future initiative, was launched in October 2012 in one of the most shock-prone areas of the world, the drylands of Ethiopia. A key objective of the project is to enhance the resilience of households to shocks.

The PRIME IE was launched with a baseline survey undertaken in two zones of the project area, Borena and Jijiga, in November/December 2013. In addition to the baseline and endline surveys, two RMS were planned in order to capture real-time household and community responses to any actual shocks that might occur during the project's five-year implementation period. This innovative feature of the IE would be launched after "trigger indicators" being monitored on the ground, for example, livestock body conditions, reached shock levels.

Objective of RMS for resilience measurement: Providing real-time data collected during an actual shock in progression, the RMS data present a unique opportunity to understand how, in a time of increasing climatic variability throughout East Africa, droughts affect households, their responses, and whether their resilience capacities can help them recover. The following are additional reasons for the need for high frequency data:

- Sensitivity to resilience dynamics, to map out the trajectory of well-being over time.
- Reveals path dependencies of well-being states with special reference to shock exposure.

- Observations of a consistent upward trajectory may reflect a resilience pathway even in cases where acceptable levels of food security or poverty have not been reached.

Methods: As it were, March 2014 marked the beginning of a protracted period of drought in the PRIME IE area, as detected by the PRIME trigger indicators. In response, the first PRIME RMS was launched in October 2014. A quantitative questionnaire was administered to a representative sample of over 400 households in 17 kebeles (communities) over a period of six months (through March 2015) for a total of six rounds. It was administered to a panel of households selected from among the baseline households. Qualitative data collection, including FGDs and KIIs, also took place in each round.

Research questions:

1) What downstream impacts of the drought did households experience and how did the incidence of these impacts evolve over the RMS period?
2) What coping strategies did households employ to deal with the drought?
3) How did households' food security change over the drought period? Which types of households were able to maintain their food security in the face of the drought, i.e., which were resilient to its impacts?
4) How did the severity of exposure to the drought affect households' ability to recover from it?
5) Did households' resilience capacities before the onset of the drought help protect them from its negative impacts?
6) Did households' resilience capacities before the onset of the drought prevent them from using negative coping strategies that undermine their resilience to future shocks?

PRIME RMS FINDINGS

Evolution of the drought, analysis with external data: External data sources were used to map out the progression of the 2014-15 drought in the two PRIME IE areas. The data sources include FEWS NET Food Security Outlook publications, PRIME trigger indicator data, rainfall classifications provided by the Ethiopian government, and satellite remote sensing data from the African Flood and Drought Monitor (AFDM). In both geographic areas, Borena and Jijiga, the drought unfolded in two waves roughly corresponding to March-September 2014 (between the PRIME baseline survey and RMS Round 1) and October 2014-April 2015 (between RMS Rounds 1 and 6). The regions both experienced relatively good rainfall in 2013, the year leading up to the PRIME baseline survey. However, during the initial wave of the drought, the first rains (Ganna in Borena, Diraa in Jijiga) failed in the regions, leading to abnormal precipitous drops in soil moisture and vegetation coverage. Critical water and pasture shortages ensued, followed by unusual mobility patterns among pastoralists, a deterioration of livestock body conditions, and crop failures. Cereals prices sharply increased and livestock prices fell, leading to a livestock-to-cereal terms of trade far below normal in markets, to the detriment of pastoralists. Many areas in both regions were elevated to Priority 1 Nutrition Hotspot status by the Ethiopian government as malnutrition cases increased.

The second wave of the drought evolved differently in Borena than Jijiga. In Borena, the second rains, the Hagaya rains, failed. Thus the region experienced two successive below-average rainy seasons. The lack of water and pasture reached critical levels, desperate livestock movements both within Ethiopia and cross-border ensued, and local crop production failed, necessitating cereal imports from other areas in Ethiopia. Many households were dependent on humanitarian assistance to meet their food needs, and malnutrition continued to rise. In Jijiga the second rainy season, the Karan rains, followed a near-normal pattern, improving water and pasture availability. FEWS NET and the PRIME trigger indicators reported that water and pasture availability had returned to normal, there was a normal harvest, and households' access to food was stabilizing. However, satellite remote sensing data show that these favorable conditions were only the beginning of a sharp drop-off in soil moisture and vegetable coverage below the norm over the post-Karan dry season. While remote sensing data confirm that, overall, Borena faced more severe drought conditions over the two drought waves, this additional climate shock put Jijiga households under further stress.

Household drought exposure, evidence from the RMS data: RMS 2014-15 household survey data confirmed that households indeed experienced drought conditions in the period between the PRIME baseline survey and the first round of RMS 2014-15 (October 2014). In both Borena and Jijiga reports of drought or "too little rain" increased dramatically over the period. The data also confirmed continued drought conditions between RMS Rounds 1 and 6, the second wave of the drought. Over 90 percent of households participating in the quantitative survey reported experiencing drought in both of those rounds. The qualitative data collected during FGDs and KIIs also pointed to drought as the key shock households were currently experiencing across the six months of the RMS data collection.

With respect to downstream drought impacts, the quantitative data reveal that those most commonly felt by households in Borena, where pastoralism predominates, were livestock or crop disease, food price inflation, and increases in the prices of inputs. Those most commonly felt in Jijiga, where agro-pastoralism and non-pastoralism are more common, were livestock or crop disease, food price inflation, and "very bad harvest." The RMS data confirm that the downstream effect of the drought on prices was very strong in both areas. After food price inflation, the most common economic shocks experienced were: increases in the prices of livestock or agricultural inputs, drops in the prices of products sold, and lack of demand for products sold. There was a noticeable increase in conflict-related shocks since the baseline, including theft of crops and livestock, and in deaths of household members, the ultimate negative impact. The qualitative data provide a rich source of detailed information on how households experienced these downstream impacts as well as others, including reduced access to fodder and water, cattle raids, and illness due to exposure to polluted water.

Overall summary measures of shock exposure constructed from the RMS quantitative data allowed understanding of which population groups were most exposed to the drought and how their drought exposure evolved over the RMS period (the second drought wave). Two such measures were constructed. The first is a perceptions-based index based on data on the types of shocks experienced and their perceived severity as reported by survey respondents. The second is an index based on the percent of households in each of the 17 sampled kebeles reporting a series of drought conditions, downstream drought impacts, and drought coping strategies. This measure was constructed in order to provide an "exogenous" measure of

shock exposure based on indicators of area-wide drought conditions. The perceptions-based measure indicates that drought exposure was roughly the same in Borena and Jijiga. By contrast, consistent with the AFDM remote sensing data, the kebele-based measure indicated that drought exposure was much greater for Borena. The different pictures given by the measures points to the fact that they are measuring different phenomena, but may also point to a limitation of the perceptions-based measure in accurately representing differences across population groups in actual drought exposure. Keeping this caveat in mind, the measure indicated that shock exposure was greatest for pastoralists, followed by agro-pastoralists and non-pastoralists.

Household responses, coping strategies for dealing with the drought: The RMS data indicated that households were using both positive and negative coping responses. Reducing food consumption, a negative coping strategy, was used by almost all households—a strong indication that the drought and its downstream impacts were exacerbating food insecurity in both regions. Widespread use of the strategy can explain why 50 percent of households planned to rely on some type of humanitarian assistance (food aid or cash) at some time over the RMS period. The use of other negative coping strategies that undermine future resilience to shocks, for example, taking children out of school and selling productive assets, increased in the last two rounds of the RMS when drought conditions were plummeting.

A very common positive coping strategy was to rely on assistance from friends and relatives, including receiving money for food and borrowing money. The qualitative data concurred that people's reliance on social capital to get them through the drought period was critical. However it was only a reliable coping strategy in the early months of the survey, because over time social capital was eroded. As the downstream impacts of the drought began to accumulate, there was a steady erosion of social support, with resource constraints making it harder for better-off households and community leaders to support those in need.

As the food security situation deteriorated over time, more households in Borena were taking children out of school either to migrate with the animals, to work to support the family, or to live with relatives. This response can negatively affect the long-term human capital of a household and degrade its opportunities to escape from poverty and food insecurity in the future. Also in Borena, the governance systems in communities were starting to be negatively affected because community leaders were migrating to distant locations in search of water and pasture, making it more difficult to hold clan meetings. It is at these meetings that support is mobilized for the poor. Other traditional ritual ceremonies where food redistribution takes place were also neglected.

In Jijiga, indications that coping abilities were becoming strained as the drought progressed were reports of quarrels between spouses over food shortages, sometimes leading to divorces, and at the community level, the breakdown of mutual support mechanisms. Patterns of migration where household males leave for long periods of time seeking water and pasture for livestock can lead to stressful conditions for families. Children, women and the elderly are often more negatively affected by the drought and its downstream impacts because they are the ones who remain behind in the villages.

Results on household food security and resilience in the face of the drought: Trends were examined in household food security over the RMS rounds compared to the baseline and exploration of how resilient households were to the drought. Resilience to the

drought was measured using two indicators: (1) the change in food security over the drought period; and (2) an indicator of whether households were able to maintain or increase their food security over the period. The underlying measure of food security relied on is an index calculated as the inverse of the Household Food Insecurity Access Scale. This scale is also used to classify households into four groups: food secure, mildly food insecure, moderately food insecure, and severely food insecure.

The RMS data showed that changes in food security over time differed for Borena and Jijiga. In Borena, food security was lower in all RMS rounds than it was at baseline, indicating a decline in the average households' food security over the first wave of the drought. Further, it showed a downward trend over the six-month monitoring period. Overall, the percentage of food secure households fell from just over one-quarter of households at baseline to one percent by RMS Round 6. That is, there were practically no food secure households by the end of the RMS period, one year after the onset of the drought. In Jijiga, the food security index was higher in all RMS rounds compared to the baseline. While the percent of food secure households fell between the baseline and Round 1, the percent of severely food insecure households was significantly lower in Round 1 than the baseline, and fell from 36 percent to 28 percent over the rounds, indicating a greater resilience to both waves of the drought in Jijiga than Borena.

The qualitative data from both regions on households' experiences of food and livelihood security during the second drought wave highlighted common conditions of economic hardship and simply not having enough food to eat. With reductions in crop production, households were forced to buy the food they would normally produce themselves yet faced rising food prices. Similarly, households unable to sell their livestock due to reduced demand and low prices found themselves in a situation where "we do not have enough money for food consumption." Children and women felt special burdens. Children were taken out of school due to the need to use funds to buy foods that previously were used for schooling expenses. Children, the main consumers of milk, also saw a reduction or complete stoppage in their milk consumption. Women were finding it difficult to feed children and other family members and perform their domestic chores due to the disruption caused by the drought. Further, their income generating activities, such as retail sales, were disrupted, reducing their incomes and money available for food.

Overall, only about one-third of households were resilient to the first wave of the drought, 26 percent in Borena and 48 percent in Jijiga. Pastoralists were less likely to be resilient than agro-pastoralists, and agro-pastoralists less likely to be resilient than non-pastoralists.

Relationship between household resilience, drought exposure, and pre-drought resilience capacity: The relationships between household resilience to the drought, the degree of their exposure to the drought, and their pre-drought resilience capacity were explored using regression analysis. The analysis focused on the first wave of the drought spanning the time between the baseline (December 2013) and the first round of the RMS data collection (October 2014). Resilience capacity was measured using indicators of its three dimensions—absorptive capacity, adaptive capacity, and transformative capacity.

The regression analysis confirmed that the more severely a household was exposed to the drought, the less likely it was to recover from it, that is, the less resilient it was. It suggests that households' absorptive capacity had a positive impact on their resilience to the drought in Borena. This result is strongly robust to the measure of shock exposure employed,

whether it is based on agro-climatic conditions or households' own perceptions of their exposure to the drought. It found no impact of absorptive capacity on resilience to the drought in Jijiga, perhaps due to the combination of lower drought exposure and low pre-drought absorptive capacity in the region. While the evidence was not as strong for adaptive capacity and transformative capacity, the analysis was suggestive that they play a role in supporting households' resilience to shocks as well. Finally, the factors contributing to resilience capacity that were found to have made a difference for households' resilience to the drought (in at least one of the regions) were: bonding social capital, bridging social capital, access to informal safety nets, households' holdings of savings, their human capital, access to financial resources, access to markets, and access to communal natural resources.

Does resilience capacity help prevent the use of negative coping strategies? Four types of coping strategies were focused on: reducing food consumption, selling or consuming productive assets, employing negative financial strategies (taking out a loan from a money lender or purchasing food on credit), and employing negative strategies related to the care of children (taking children out of school and/or sending them to work for money).

When looking at use of the coping strategies immediately following the drought (in RMS Round 1), the results differed for Borena and Jijiga. For Borena, the regression analysis indicated that all three dimensions of resilience capacities helped to prevent households from reducing their food consumption as a response to the drought. Additionally, adaptive and transformative capacity helped to prevent them from depleting their productive assets. And transformative capacity helped prevent them from undermining the human capital of their children by taking them out of school or sending them to work for money. However, there is some evidence that households with greater absorptive capacity were more likely to use these strategies involving children.

The analysis suggested that resilience capacity had less of a preventative effect in Jijiga than Borena at the time of RMS Round 1, again perhaps because all three dimensions of resilience capacity were much lower in that region at the onset of the drought. While absorptive capacity was found to reduce asset depletion in the region, both adaptive and transformative capacity were found to increase it, perhaps because households with greater adaptive and transformative capacity start out with greater asset bases.

When looking at the use of coping strategies over the entire six-month RMS period (when the second drought wave was in full progress), there was strong evidence that adaptive and transformative capacity helped to prevent households from either taking their children out of school and/or sending them to work for money in both regions. Additionally, absorptive capacity helped to prevent Borena households from employing negative financial strategies, and adaptive capacity helped to prevent Jijiga households from reducing their food consumption.

PRIME RMS Conclusions: The majority of households in the PRIME IE area were not able to maintain their food security in the face of the drought, that is, they were not resilient. Their absorptive, adaptive and transformative capacities did buffer them from the shock. But for most households, these capacities were not enough to maintain their food security and prevent them from employing negative coping strategies that undermine their ability to manage future shocks and stressors. Any future interventions should be focused on both strengthening resilience capacities to manage shocks and timely social protection. With regard to the latter, social protection should be provided over a long enough period and

appropriately targeted to protect households from the most severe drought impacts—such as food insecurity, conflict, and death—as well as enable them to maintain their asset and human capital bases.

Small group discussion: Follow the instructions and prompts of the facilitator. In small groups discuss the following question:

- *What external data sources could be used to map out the progression of shocks in the South and Southeast Asia context?*

Session 5.3: RMS and contextualization in the South and Southeast Asia region

This session provides an overview of future plans for a RMS to take place in Nepal's PAHAL region to illustrate the ways Mercy Corps intends to conduct this type of survey. It is useful to demonstrate how project-level RMS is implemented for participants to gain insight for their own programming needs.

Proposed research methods and study design for PAHAL recurrent monitoring in Nepal:[56] Recurrent surveys can begin after the baseline survey and following a shock. Mercy Corps will define indicators such as the magnitude and type of shock that would trigger post-shock resilience monitoring. The start-up of recurrent monitoring cannot be known for certain a priori, since their implementation depends on the occurrence of a shock in project areas during the course of the project. Data collection should begin one month after a trigger event has occurred.

The data will be collected in four rounds in the shock-impacted areas every three months over a twelve month period, monitoring the ability of households to withstand and recover from the shock. The surveys will gather panel data by monitoring the same households at baseline, endline, and post-shock. The RMS data will be collected for a panel of households selected from among the baseline households so that baseline (pre-shock) information on resilience capacities and household characteristics will be available for analysis.

Sampling design: In order to facilitate the actual impact evaluation of the PAHAL project and understand whether program interventions build resilience capacities and food security, the baseline sampling design was planned to collect data in purposively selected shock prone Village Development Committees (VDCs), a subset of shock-prone areas identified through a district level Disaster Rick Reduction committee.

To ensure a representative sample, sample selection will be based on a two-stage, stratified random sampling design for the baseline data collection. In stage one of sample selection, sampling clusters (wards) will be selected within each stratum using probability proportional to size (PPS) sampling based on ward populations. In the second stage, households within each ward will be selected randomly from household listings that will be constructed from censuses conducted in the selected wards. Sample size will be chosen to be able to detect a 20 percent reduction—a change from 50 to 40 percent—in a key outcome variable of interest, the prevalence of poverty, between the baseline and endline surveys.

[56] Information in this session obtained from: TANGO International. 2016. Promoting Agriculture, Health, and Alternative Livelihoods (PAHAL)/Post-Shock Resilience Monitoring (PSRM) Analysis. Technical Proposal. Submitted to Mercy Corps. 28 March.

After baseline data collection, a smaller number of households will be sampled for the RMS and will be located across the VDCs. The goal of the RMS sample selection is to ensure a representative sample of a minimum number of households from the baseline sample throughout the monitoring period. Sample selection will be based on a stratified random design, with the strata being the four VDCs and clusters (i.e. sub-units of the VDCs) randomly selected within them. All baseline households residing in each cluster will be included in the sample. In order to ensure the minimum household sample size, and using a 10 percent mark-up for non-response and five percent mark-up for sample attrition, five clusters will be chosen in each stratum using PPS sampling.

In each RMS round, data will be collected on the shocks households experienced, the strategies they used to deal with the shocks, and indicators of household food security.

Surveys will use a subset of modules from the baseline questionnaire. The recurrent survey takes approximately 15 minutes to complete.[57] It includes the following modules:

1. Module 1: Household identification cover sheet
2. Module 2: Shocks and shock coping strategies
3. Module 3: Fodder and water availability
4. Module 4: Food insecurity coping strategies
5. Module 5: Household dietary diversity
6. Module 6: Household hunger.

Plenary discussion:

- *What RMS research questions, trigger indicators, and study design features apply to the South and Southeast Asia context? What external data sources could be used to map out the progression of shocks in this context?*

Session 5.4: Implications of Findings for Programming and Strategy

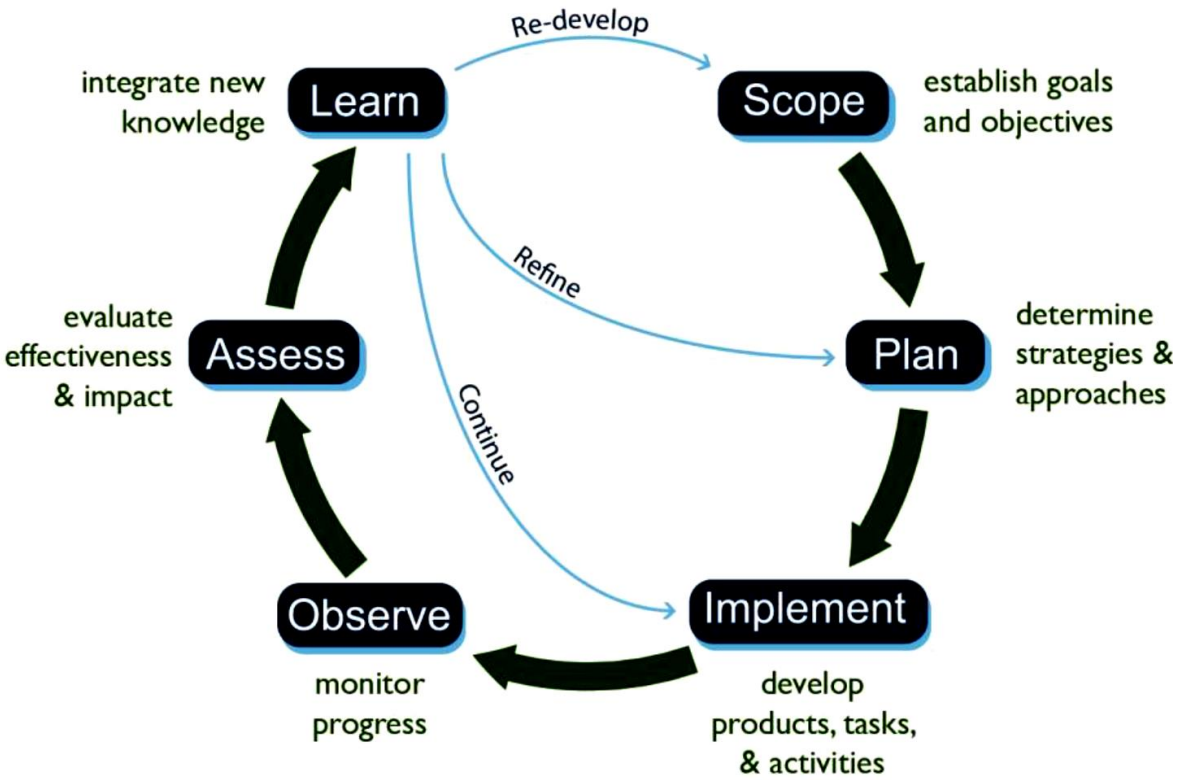
In Session 5.4, participants will have the opportunity to reflect on the concepts learned during the previous sessions of Module 1. Part of this discussion will involve a brief review of a selection of lessons that have been learned over the course of resilience programming over the years. This list is not exhaustive and will serve as a starting point for the discussion on programming implications for participants' next steps.

Collaboration, Learning, and Adapting (CLA): USAID's CLA approach allows for participants to apply systems thinking and collaborative management to decision-making for future programming. CLA can be used to ensure that knowledge-management practices and learning are incorporated into resilience programming through the continuous collection of information as well as through the processing, the sharing of that information among stakeholders and the adaptation of programming if necessary (see Figure 20). The CLA process aligns with the way assessments are performed under the STRESS approach (see Session 2.1): gaining insight into the local context is used for adaptation of interventions and portfolios, capacity-building ensures partners and stakeholders drive development goals, and incorporating evidence-based results ensures resilience programming which is relevant and appropriate for sustainable changes. CLA and STRESS can then become part of a

[57]Similar surveys in the PRIME Ethiopia recurrent monitoring surveys were, on average, less than 10 minutes long.

comprehensive resilience framework (see Session 1.1 and Session 1.2) in a way where CLA becomes a toolkit for practitioners to systematize knowledge management in resilience programming.[58]

Figure 20 – Collaborative, learning, and adaptive management approach



USAID. 2013. Learning About Learning: Lessons on Implementing a KM and Learning Project from the USAID KDMD Project

Lessons learned from resilience M&E over the years: How have past experience on resilience M&E design and practices contributed to current practice? Among the lessons learned are:

- *Complementarity of primary and secondary data*: The combination of subjective data (e.g., primary data collected from FGDs and KIIs) with objective data (e.g., satellite imagery of deforestation and the changes in size of lakes and bodies of water) provides a more comprehensive view of resilience perceptions
- *Appropriate variable selection*: Variables used for the construction of indices have varying level of impact on resilience. This has led to improvements in the design of M&E tools that capture, inter alia, community resilience, linking social capital, personal aspirations, and livelihood diversification in order to gain an understanding of the resilience status of each environment.
- *Dynamic use of variables and resilience capacities:* Past experience has provided insight on the best ways to use the three resilience capacities (absorptive, adaptive, and transformative) in approaches that are dynamic and based on the best contextual environment. A nested, versus a linear, approach allows the resilience capacities to be

[58] USAID. N.d. Learning Lab – Collaborate, Learn, Adapt for Better Development Results.

adapted to each environment. Variables may also contribute to one or more of the resilience capacities (e.g., access to financial services contributes to enhanced absorptive and adaptive capacity).

- *Frequency of data collection:* Fine-tuning the frequency at which data is gathered provides a greater depth of understanding and an added time-lapse of households' and communities' responses to shocks and stresses over time. The addition of recurrent monitoring as part of a resilience M&E provides a more comprehensive view of resilience capacities.
- *The use of proxies for resilience:* Measures of recovery and of stability can now be understood to be proxies of resilience. In this way, stability in food security and the speed at which households and communities recover can be used as proxies for resilience.
- *Improved analysis of resilience indices:* The use of enhanced analysis tools, such as regression analysis, allows for a more nuanced

Small Group Discussion:

- *What are effective strategies for operationalizing resilience findings as part of the program cycle, and to guide agency resilience strategies?*
- *How to move forward with resilience planning in participants' country offices and agencies?*
- *What support is needed to deepen resilience work?*
- *Where can you find the right support?*
- *How can the resilience framework be integrated into project and program design so a resilience lens is incorporated in all stages of programming? (revisited from Session 1.1 to prompt participants to prompt participants to move forward on next steps).*

Session 5.5: Wrap-up and Final Debrief

- *Final discussion, conclusion*
- *Final evaluation. [Participants, please refer to Annex 6 – Module 1 Evaluation Form to provide insight on experience for Session 5 and to provide insight into Module 1]*

Session 5 References:

Session 5.1

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Session 5.3

- TANGO International. 2016. Promoting Agriculture, Health, and Alternative Livelihoods (PAHAL)/Post-Shock Resilience Monitoring (PSRM) Analysis. Technical Proposal. Submitted to Mercy Corps. 28 March.[Not available online]

Session 5.4

- USAID. N.d. Learning Lab – Collaborate, Learn, Adapt for Better Development Results.
- USAID. 2013. Learning About Learning: Lessons on Implementing a KM and Learning Project from the USAID KDMD Project. November

Annexes

Annex 1 – Incorporating gender in a resilience M&E framework

Gender equality, or women's empowerment, are key desired outcomes for many humanitarian and development programs. In the TANGO resilience measurement framework, gender equality may be identified as one of the key well-being outcomes. Many studies and papers discuss the dynamics of gender in strengthening resilience and this annex draws directly from a workshop on this topic developed for a TOPS learning and knowledge event.[59]

> *"Despite the fact that women often face a range of unique challenges in areas of recurrent crisis – and often bear the heaviest burden of shocks and stresses – they also possess enormous individual and collective capacity to help themselves, their families, and their communities." (USAID, 2012)*

It is important to understand the gender-differentiated impacts of shocks/stresses and the barriers to strengthened resilience capacity. Some of these impacts and barriers that disproportionately and negatively affect females are a result of cultural norms, for instance, such norms that affect participation of women in decision-making at household and community levels. It is important to note that gender equality is not binary, thus, empowering women does not equate to disempowering men. As gender norms and roles are upheld at every level of society and in all aspects of life (e.g., economic, political, social, environmental), building resilience capacities that empower women necessitates gender integration at all levels. Thus, building capacities alone are not enough, but it is the effective use of capacities (response) by people in all levels of society. For instance, enhancing assets alone is not sufficient if households do not use the assets effectively to respond to shocks in ways that do not compromise their future wellbeing.

What factors, which should be considered with a gender lens, influence whether individuals, households, or other levels of society put resilience capacities to effective use?

- Sense of individual power/ agency/ absence of fatalism (individual/HH level)
- Aspiration/ motivation to adapt in the face of change (individual/HH level)
- Exposure to alternatives to the status quo (individual/HH level)
- Power dynamics (community and other layers of society)
- Political willingness (community and other layers of society)
- Perceived risk/ opportunity cost (all)

Absorptive capacity: How might gender norms and roles influence absorptive capacities and response to shocks and stresses? (The following illustrative list is not exhaustive and may vary depending on the specific context)

- **Asset ownership and informal safety nets/savings**: For women: Women may have low rates of ownership and/or control over assets and resources, including equipment/ machines and land. Male/female differences may exist in post-shock

[59] This session draws heavily on the research and presentations developed by Laurie Starr (TANGO) and Kristi Tabai (TOPS), "Gender Equality and the Resilience Agenda: Moving Towards Transformative Change" (November 2015).Questions: laurie@tangointernational.com; and ktabaj@savechildren.org

asset divestiture. The type and intensity of shock affect men's and women's assets differently. For instance, a study in Bangladesh showed death has a higher impact on men's assets while illness-related shocks have a higher impact on women's assets; in Uganda, drought-related shocks affect women's but not men's assets. (Quisumbing, 2015) For Men: Men potentially have less access to informal safety nets than women due to the prevalence of female-centered village savings and loans groups, etc.

- **Exposure to shocks and stresses**: For Women: Women disproportionally vulnerable to environmental risks due to outmigration of men. In addition, Women have more difficulty reaching safe places in times of floods or cyclones, and there are higher death rates among women. (Chindarkar, 2012). For Men: Men have higher prevalence of short-term migration as coping strategy to reduce their exposure to shocks; yet, men more often are the last to evacuate when a shock hits (Oxfam, OCHA, 2014).

- **Shock impact/risk mitigation and preparedness**: For Women: Higher mortality for women due to gender differences in service access after disaster shows inability to mitigate the impacts/risks of a shock. (Smith, et al., 2014) Additionally, drought /deforestation have increased the burden on women as they are more likely to be responsible for fetching water and firewood. Inequity in intra-household food distribution means women and children may have decreased ability to absorb a health or food security shock/ stressor. For Men: Men have potentially less knowledge about caregiving needs post-shock (illness/ elders/ nutrition). Based on norms, men may choose to deal with stressors in unhealthy ways (drinking, sex, violence). (Oxfam, OCHA, 2014)

> *"Climate change has been shown to have significant health burdens on women through higher mortality in places of residence in natural disasters, through differences in wealth, and through gender differences in access to services following disasters."* (Chindarkar, 2012)

Adaptive capacity: How might gender norms and roles influence adaptive capacities and response? (The following are a few ideas and examples)

- **Exposure to information, such as to make informed livelihood decisions**: Access to information regarding job opportunities or support for promotions often occurs in gendered networks, hurting women trying to enter a male-dominated industry or vice versa. Overall, globalization and technological advances allowing greater access to information have influenced markets, formal institutions, and informal institutions to remove some of the constraints to gender equality.[60] (World Bank, 2011) Norms on women's physical mobility/ other restrictions limit exposure to information. Women may have limited direct access to market information and have limited networks of potential buyers, as well as limited access to formal and informal institutions.

[60] For instance, related to female farmers, the report states: Growth in traditional agricultural exports has benefited men more than women because women are less likely to work on commercial crops and are crowded out of traditionally female-intensive crops when these crops become commercial. In contrast, nontraditional and high-value-added exports have stimulated higher female employment in export production, although the impacts vary by country and product.

- **Diversity of livelihoods (activities in different risk categories):** Women's reproductive work/ time burden reduce their ability to adopt natural resource management or community-supported agriculture practices. (Ringler, et al., 2014) Gender stereotypes may inaccurately determine "suitability" of work for men and women.

- **Access to financial resources**: Women may have limited access to and use of credit, and limited ownership of and decision-making capacity for productive assets. Additionally, women may have limited decision-making power regarding use of tangible and intangible household assets (e.g., consumption needs, health needs, education, shelter).

- **Aspirations and confidence to adapt**: Lower confidence level and limited aspiration may result in acceptance of current role. (World Bank, 2011)

- **Social capital**: Strong bonding social capital may increase women's adaptation, while limited linking social capital may limit adaptation.

- **Human capital**: Education levels for women and men are a key aspect of human capital, and in many development contexts education rates are highly gender-differentiated. In addition, gendered norms regarding male long-term migration may result in positive or negative response for the household members left behind.

Transformative capacity: How might gender norms and roles influence transformative capacities and response? (The following are a few ideas and examples)

governance mechanisms, policies/regulations, infrastructure, community networks, and formal safety nets which are part of the wider system in which households and communities are embedded: formal safety nets, access to markets, access to infrastructure, access to basic services, access to livestock services, access to communal natural resources, bridging social capital, linking social capital

- **Governance mechanisms and policies**: Discriminatory regulations and policy at national level trap women in the role of the "diminished opposite" of men. (Honeywill, 2013)

- **Linking social capital**: Low institutional inclusivity in government and decision-making bodies: e.g., women in leadership not culturally-accepted, and women's self-esteem and confidence to participate may be low. Women are recognized as capable leaders only in their gender-normative sectors, such as health and nutrition.

- **Access to services and infrastructure**: Women's limited mobility influences their access to basic services and infrastructure; and for migrating males, they may experience limited access to formal safety nets in destination communities.

Measurement considerations: Measurement of gender indicators must consider the unit of analysis / level of disaggregation that will offer reliable gender-sensitive measurement for each resilience capacity (e.g., individual male and female/male-headed household/female-headed household/community). The study design (discussed further in Session 3) may include gathering data from the wife of the head of household, through the perspective of a village leader or women's organization with the community survey, and from gender-disaggregated qualitative information.

Table 7 – Sample Indicators for Resilience— Applying a Gender Lens

Sample Indicators for Resilience Capacities and Resilience Response (need to apply gender focus)		
Absorptive Capacity	Adaptive Capacity	Transformative Capacity
– Household perceived ability to recover from shocks – Social capital (bonding) – Access to community safety nets – Asset ownership – Cash savings – Availability of hazard insurance – Availability of a disaster preparedness and mitigation program	– Exposure to information – Human capital (knowledge, skills) – Livelihood diversity – Access to financial resources – Asset ownership – Social capital (bridging and linking)	– Availability of formal safety nets in communities – Access to markets – Access to infrastructure – Access to basic services – Access to livestock services – Access to communal natural resources – Social capital (bridging and linking) – Inclusivity of institutions
Absorptive Response	Adaptive Response	Transformative Response
– Coping strategy index – Use of savings to absorb shocks – Use of remittances to absorb shocks – Use of hazard insurance – Use of bonding social capital to absorb shock	– Application of information – Adoption of improved agricultural practices – Use of savings for adaptation – Use of remittances for adaptation – Use of bridging social capital – Household aspirations and confidence to adapt	– Active participation in decision- making bodies – Participation in collective action – Gender equitable decision making index – Use of formal safety nets

General conditions that need to be in place to support each resilience capacity (need to apply gender focus)

Absorptive Capacity	Adaptive Capacity	Transformative Capacity
○ Supportive economic factors (assets holdings, cash savings, and hazard insurance) ○ Bonding social capital ○ Access to safety nets (formal and informal) ○ Disaster preparedness and mitigation plans/ programs	○ Exposure to and use of information; human capital ○ Social capital (bridging and linking) ○ Economic factors: livelihood and risk diversification, access to financial resources, asset ownership and quality of assets	○ Enabling environments: governance mechanisms; policies/ regulations; equitable cultural & gendered norms ○ Access to key resources that are part of the wider system in which households communities are embedded (e.g., markets, infrastructure, basic services, communal natural resources) ○ Institutional inclusivity: men, women, disadvantaged groups ○ Social capital that draws on relationships with entities outside of households' own group (bridging / linking).

Factors influencing resilience response: Sense of individual power/ agency/ absence of fatalism; aspiration and motivation to adapt in the face of change; power dynamics; political willingness; perceived risk/ opportunity cost

Common interventions for strengthening resilience capacities

Absorptive Capacity	Adaptive Capacity	Transformative Capacity
○ Cash or in-kind transfers ○ Risk-financing mechanisms (e.g., crisis-modifiers) ○ Improving access to informal safety nets ○ DRR/DRM approaches	○ Strengthening human capital (e.g., skills building, health and nutrition education; improved ag. practices) ○ Promoting climate change adaptation, climate-smart agriculture ○ Encouraging livelihoods diversification and asset accumulation and diversification ○ Improving access to financial services	○ Investments in good governance; advocacy for pro-poor policy/regulation ○ Basic service delivery (e.g., health, education, sanitation, water) ○ Infrastructure investments (e.g., markets, roads, communications systems) ○ Improving access to formal social protection mechanisms

Supporting questions for Annex 1 - Incorporating a gendered perspective in resilience M&E framework:

- *How can we evaluate whether gender-equitable change has taken place for: absorptive capacities and response, adaptive capacities and response, transformative capacities and response?*
- *What level of disaggregation is needed for existing resilience indicators (e.g., intra-household; sex of HH head; age of respondent)?*
- *What new indicators are needed?*

Annex 2 – Additional case study material

Please see the Supplementary Annex Volume 2 for the complete case study materials for:

- Mercy Corps 2015. The Dry Zone of Myanmar: A strategic resilience assessment of farming communities.
- Mercy Corps. 2015. PAHAL Program – Strategic Resilience Assessment (STRESS) Report

Mercy Corps' third case study provided in this annex provides the first two steps of the STRESS process to scope and inform the assessment as a preliminary guide to the development of the TOC.

Case Study 3: Recovery in Western Leyte after Typhoon Yolanda[61]

Background:

In November 2013, the Philippines was devastated by Typhoon Yolanda. The hardest hit was Leyte with rural farmers being identified as a particularly vulnerable population. Mercy Corps' TabangKO program was intended to speed recover and promote resilience to future disasters through cash transfers to severely affected households in this region. This program was designed under the assumption that financial inclusion and livelihood diversification contribute to household resilience. Mercy Corps in collaboration with John Hopkins University's School of Advanced International Studies, set out to understand what contributed to a households' response and recovery after Yolanda. The purpose to of the research was to fill any knowledge gaps needed to inform future interventions.

Research Question: What are the main determinants of resilience to natural disasters in the Philippines?

Phase 1: Scope

A literature review was undertaken to incorporate existing evidence that address the research question. Based on the literature review of studies conducted in different regions of the world, the research team narrowed down their focus on these four areas of resilience: financial inclusion, livelihood diversification, social capital, and gender.

Phase 2: Inform

Both a quantitative and qualitative analysis were used in this study. However for the purposes of STRESS process, only the qualitative methodology is provided. A total of nine FGDs were carried out with community members (5) and association members (4). Fourteen KIIs were conducted with Barangay officials (4), municipal officials (4), NGO and cooperative staff (3) and leaders of community organizations (3).

Findings:

- Formal loans were positively associated with recovery.

[61] Hudner et al., 2015.

- Savings before the typhoon was associated with better recovery, however only a small proportion of households saved.
- Livelihood diversification and type of livelihoods did not show improved recovery
- Households that began a new income source after the storm performed significantly better
- Greater social capital was associated with better recovery where community associations replaced local governments as distributors of assistance
- Women's roles within households and the community had changed as many began to take work outside of the home; women began to take on responsibilities or engaging in occupations traditionally dominated by men
- Many community organizations offered resources specifically for women

Annex 2 References:

- Hudner, Daniel, Harter, G. , Van Asselt, J. & Kummings, M. 2015. What matters for household resilience? Lessons from recovery in Western Leyte after Typhoon Yolanda.

Annex 3 – Sample data management tools

Table 8 – Data entry matrix example

Qualitative Survey - Data Analysis Matrix	
Women FGDs Summary for "Example" Province Report by : [Name] Date:	
Focus Group Discussion: 95 Women from 10 Villages	
1. Shocks/Stresses (exposure)	**A. Characteristics overview**
Attach mapping of shocks if produced: add observations	
Types of Shocks	✓ Flooding ✓ Drought: Drought in some of the sites we visited; they have had a drought that has stretched on for 8 months of last year ✓ Outbreak of water-borne diseases ✓ Outbreak of livestock diseases ✓ Crop failure due to drought: 2014 and 2015 harvest was bad
Types of Stresses	✓ Conflicts with the neighboring community due to water shortage ✓ Food shortage during the dry season ✓ Environmental degradation ✓ Chronic unemployment and lack of income ✓ Lack of access to health center means it is costly to transport to hospital, pregnant women suffer complications
How it affects community	✓ Flooding has destroyed roads to market and homes/belongings ✓ Drought has caused death of livestock and human beings, has led to famine in the community ✓ Because of drought people cut trees to feed their goats which has led to environmental degradation ✓ Water shortage causes deterioration in hygiene thus leading to disease outbreaks. In the rainy season they get water from the seasonal rivers, but this water is not clean leading to outbreak of water –borne diseases ✓ Drought causes loss in livestock leading to poverty and death of livestock "our *people do not understand the importance of pasture. They still do not practice good pasture management such as reseeding and rotating. There is also a problem of where to store fodder for the few who have started harvesting the pasture for the dry season."*

	✓ Young women are exposed to insecurity as they search for water or move to market because tensions have increased between communities due to resources scarcity ✓ Due to lack of productive livelihoods, male children drop out of school to help the family survive ✓ Petty crimes such as muggings and break-ins
2. Household and Community Responses (attitudes and absorptive capacity)	**A. How do households (HH) and the community respond to shocks/stresses**
Know in advance/ early warning	Yes: There are some traditional methods that the communities use such as: ✓ Observing the stars or the moon ✓ The elders have a method of counting days ✓ Observing the cow when it goes to drink water *"when a cow drinks water and quickly moves out of the watering point that is a sign of rain, but if it starts lazing around at the drinking point and curls its tail it is a sign of drought."* ✓ If white birds appear it means the rains are approaching ✓ From the cloud cover they can tell if they will experience rain or a dry spell ✓ If the rains fall during the known dry months, what follows is a long period of drought
Actions to reduce impact	✓ Water shortage: Water harvesting using various methods e.g. roof catchment, the women dig a big hole in the kitchen and line it with a plastic paper then fill it with water and cover it properly; they also come together and contribute money to buy water which usually comes from ABC town ✓ Women are engaged in small businesses such as selling tomatoes or baskets while others have formed groups which support them to engage in larger scale agriculture ✓ Women groups that engage in savings and loaning to each other ✓ The women look for water from water points further away ✓ Filling sandbags to stop flood waters from entering homes ✓ They take food on credit from shops, the debts are paid off in the rainy season ✓ Assistance from relatives in other places and big towns ✓ Daily labor jobs ✓ Relief food from the government though this has not been done since beginning of 2015 ✓ Emphasize on education of their children so they can get into formal employment/good jobs ✓ Women engage in poultry farming as chicken is easy to sell and low maintenance ✓ Growing fodder "*Three years ago we experienced a serious drought. Many people were reduced to poverty due to death of their livestock. A few people who could afford bought hay for their livestock. This was the first time in our lives to buy fodder. It is from this experience that farmers recovered."*

	✓ Food for Work though not all affected households are in this program ✓ Selling firewood
Most effective actions to cope (from previous experience)	✓ Water harvesting ✓ Women's savings groups ✓ Small businesses *".....we no longer depend on farming; we have small businesses which have become our main source of livelihood."* *"...grocery business is not weather dependent, people buy grocery whether or not there is drought, this is better than livestock-raising and crop farming from which one incurs huge losses during drought.* ✓ Getting credit from the shop ✓ Engaging in menial jobs ✓ Relief food
3. Social support (Bonding, bridging and linking social capitals)	**A. Bonding: Are people within the community sharing resources with one another to recover from shocks/stresses?**
People within the community supporting each other to cope and recover	✓ Yes: "*we come together as a group and contribute to buy water, even a member who has no money gets an equal share of the water*." ✓ Households that have lost all their livestock or assets are loaned a goat or tools to start them up again ✓ Members support each other in the groups through loans e.g. a member who has been left vulnerable by the shocks and stresses is given a loan by the group to be able to buy food and take care of other household needs. They repay the loan after the drought when the livestock recovers and can be sold for good money. ✓ They share food communally i.e. several households come together and prepare food from the same pot to maximize on limited resources and ensure that neighbors have food ✓ Fundraising for education if vulnerable household cannot afford school fees or for health costs or funeral costs if a community members dies
How has this changed past two years?	✓ Groups are loaning their members ✓ They share information e.g. on business and other opportunities within the groups ✓ The groups come together to assist their member during hardships ✓ The women have formed groups to assist each other improve their economic status e.g. the women from one group all have retail shops selling food. They have agreed on which type of food stuff that each woman should stalk so they can also buy from each other thus supporting each other and not competing with each other. Another group does table banking, and another group buys and sells goats as a group
Which resources shared	✓ Food

	✓ Water ✓ Money ✓ Livestock ✓ Pasture ✓ Information (on opportunities) between and within groups
Who shared with	✓ Group members ✓ Poor households ✓ Orphans ✓ People with disability ✓ Fellow group members ✓ Neighbors
Who gets priority	Priority is in the order below:- ✓ Orphans ✓ Poor households ✓ Widows ✓ Elderly ✓ Disabled ✓ A community/group member whose livestock has all died or been stolen during drought
What people doing to help each other be productive again	✓ Loaning each other money in groups ✓ Sell milk and livestock as a group Coming together to form savings groups which support each other through merry-go-round and loans
Levels of trust affected by shocks/stresses; Changes in social support due to continuous shocks/stresses	<u>Note differing opinions:</u> ✓ The community still remains united even through shocks and stresses, they still trust and assist each other though mistrust has started to creep in slowly in some villages because the debts are taking longer to repay. *"The village elders remind us to stay united and to take care of each other."* ✓ This has not changed much except that people now prefer to help within groups and mostly to help members with start-up capital and information on opportunities available to them. ✓ "*Unlike before the community would come together and identify a needy household and help. Nowadays, the person in need has to look for people and explain to them her problems and hope for goodwill. We are less united.*"
	B. Bridging/Linking: Are people or institutions outside the community providing supports?
Differences in social support across villages or communities?	✓ No difference ✓ They buy things from them (neighboring communities) ✓ Allow them to get water from their water catchment areas

	✓ The neighboring location allows them to graze our livestock on their land and use their water they seek permission through their chief
Use connections to people in authority/with influence to access support? How?	✓ Chief is the most common resource person in the community. The chief links the community to their neighboring locations and communities e.g. to borrow from them agricultural land from the neighboring community; to reach out to both the district and national government. ✓ Occasionally the political leaders link the community to NGOs and to other resources ✓ Some households receive remittances from relatives in bigger cities, but this has become less frequent in last two years
Conflict with other communities	✓ Fight for water with neighboring communities
Conflict resolution mechanisms	✓ The village elders and political leaders meet with those from the neighboring community and discuss the matter. Each group of leaders goes back to talk to their people and, for instance, the livestock that was stolen is returned back. ✓ Village elders and the chiefs play a crucial role in conflict resolution they are the negotiators for peace
Sense of security/safety changed in last 5 years	✓ Women engage in fist and verbal fights at watering points more often because of rising tensions, these cases are usually sorted out by the women themselves there and then. Rarely do they get reported to the chief as a peaceful solution is always found. ✓ Inter-tribe conflict due to resource shortages and hunger ✓ Muggings have increased as people especially the youth have no other means of livelihoods ✓ Consumption of illicit brews has increased
4. Collective Action and Confidence to Adapt (Behavior, Participation, Belief)(Adaptive and Transformative Capacity)	**A. Community leadership and collective actions to recover from and adapt to shocks/stresses**
If Venn diagrams drawn for this section, attach and provide observations:	
Community leaders effective at organizing support and responsive	✓ Yes: they are very effective because they organize support and contact the big organizations. There are also members of the community leaders that have business centers and they contribute money to the community when they can because they know our needs. They mobilize and maintain peace within the community.
Who else is helping community with shocks/stresses	✓ The government, through National Agricultural Extension Program constructed for them an irrigation system ✓ NGOs provide latrines, build schools and provide vocational trainings

	More micro-credit loans are needed: *"The loans we got have boosted our business. We are now able to take our children to school, pay for their medical and support our daily needs. Women also take loans from the groups to pay secondary school fees for their children. Before our children were not going beyond primary school because we could not afford to pay the secondary school fees."* ✓
	Collective action on:
Infrastructure	✓ Community members came together under the elder and provided labor in clearing debris from the roads ✓ <u>In one community</u>, the women came together to protect their drinking well. They cleaned the well and the men fenced around it. Three men were then employed to guard it. Each household contributes per month to pay the guards and maintence. ✓ Provided labor during the construction of the road and market
Natural resources	✓ Elders ensure environment is conserved e.g. trees are not cut, the environment committee community members came together and fenced off grazing lands, etc. ✓ The community is involved in conserving the environment with a local NGO
Deciding community priorities in open meetings	✓ All men and women in the community attend the elder's meeting where they outline issues affecting them and propose interventions
With other communities on shocks that affect multiple communities	✓ Elders come together to resolve inter-community conflicts, and request for grazing land and water for livestock from neighboring community
Other activities	None
How collective actions organized	✓ Elders, calling on NGOs to provide inputs too ✓ Women come together and form groups
Who participates/ or not	<u>Note differing perspectives</u> ✓ All genders participate ✓ Mostly women are in groups, women have a lot of power because of savings groups influence ✓ Traditionally women were not allowed to attend elder meeting as they were regarded as children. That has changed, women participate freely in community activities. There is no particular characteristic/s unique to households that do not participate in community activities. Such participation is voluntary. However the following are characteristics of women and vulnerable people who do not participate: ✓ Have no interest in joining groups they view it as a waste of time ✓ Those that are busy with domestic and livelihood duties ✓ Those that lack money ✓ Disabled people cannot access because of mobility and ability

Is your community successfully recovering	Note differing perspectives ✓ Yes though some households are lagging behind. We no longer depend entirely on relief. ✓ Yes through coping mechanisms but if big disaster hits it is not possible to overcome ✓ No it is not possible to recover without the basic life needs of water, food and health
Main differences between a community that successfully responds and one that does not	✓ The community that does not respond positively are still relying entirely on livestock ✓ A household that does not participate in groups is more likely not to be successful, their children are hungry and drop out of school ✓ The households that have savings are prepared to recover
Long-term assistance affected community response	✓ No, NGO grateful for NGO support
Most important factors that influence households' confidence to adapt and deal with shocks/stresses	✓ Emphasize on their children's education so they can be able to get formal employment ✓ Being members of a group to have access to loans and capital, this also exposes them to "what is out there" for more opportunities
5. Livelihood diversification (adaptive and transformative capacity)	**A. Livelihood activities; changes in activities; and household decision-making**
Livelihood activities and changes in last 5 years	✓ Importance of diversifying livelihoods *"Before we depended entirely on livestock, with every drought (which has persisted over the years) we lost our livestock. In life we were moving in a forward then backward then forward cycle because of drought. We have since realized that we need to engage in other means of livelihoods especially business."* ✓ Learnt to harvest water during the rainy season and save it for the dry weather *"During the rainy season some are lucky they have corrugated iron sheet roofs so they have bought tanks to harvest that water. Those who cannot afford that dig a hole in their kitchen, line it with a polythene paper and fill it with water during the wet season and cover it properly. This water is not used until the dry season when all sources close by have dried up."* ✓ They have formed groups for table banking. They loan members to cope and recover from shocks and stresses ✓ Learned the importance of savings

	✓ The women have realized they should sell their livestock during the rainy season because then they are fat and can fetch good prices, and the importance of having a manageable number but the men who own the livestock do not agree to sell or reduce the number of their herds with the onset of drought. ✓ Importance of harvesting and storing fodder for the dry months
Are activities affected by different shocks/stresses? How?	✓ Grocery shop business is not affected very much by drought. Business is almost constant all year round ✓ Livestock markets are affected by drought with prices going up during the wet season ✓ Business is not affected as much as farming ✓ Formal employment not affected by weather/climate shocks
Women same livelihood opportunities as men, access to information	✓ More opportunities for women: Women participate in groups where they can access loans and information and engage in micro-business
Economic conditions over last 10 years affected confidence to adapt	Overall, poor economic conditions have led to more reliance on government supports but they are lacking. The participants feel the local government has had minimal impact and social safety nets are needed and economic development on larger scale.
	B. Household decision making
Who in the HH makes decisions on:	*(Develop matrix with responses of men/women/joint decisions; Probe for differences between men's and women's decision-making influence)*
a. Production	7/10 FGD: There is a joint decision 3/10 FGD: Men
b. Product and livestock to buy/sell and when	6/10 FGD: There is a joint decision 4/10 FGD: Women
c. Other income-generating activities to undertake	6/10 FGD: Women 4/10 FGD: Men
d. How income is spent	8/10 FGD: Men 2/10 FGD: There is a joint decision
e. Whether to borrow	10/10 FGD: Women "*Women because they cover the needs of their households with the loans.*"
f. Whether HH or members move or migrate	7/10 FGD: Men 3/10 FGD: There is a joint decision
g. Health/nutrition issues for the women or children	10/10 FGD: Women
h. How HH responds/copes to a shock/stress (related to the above topics)	8/10 FGD: There is a joint decision 2/10 FGD: Men

Difference between HHs where women have decision influence versus little/no decision-making?	Note differing perspectives: ✓ No difference. ✓ The women who are educated and are intelligent have strong decisions, which means their households are strong. They also get respect and trust from their husbands so they are better than the woman who doesn't have any influence with their household.

Annex 4 – Sample qualitative tools

The following topical outlines provide participants with examples on how qualitative data is collected within a resilience M&E framework. The examples are intended to serve as prompts and will need to be adapted depending on the particular context and research questions being investigated. These topical outlines draw from TANGO's experience and are meant to provide participants with additional examples so participants can visualize resilience-focused topical outlines.

FGD topical outline

Note: You may consider using a map of the community as a tool but it is not necessary to conduct the focus group discussion.

1. Resilience to what?

A. Shocks/stresses

1. Elaborate the types of shocks/stresses experienced by the community?
2. Frequency, duration, severity *(slow-onset stresses?)*
3. How they affect the community (whole community/ women/men/youths/disabled/ minority groups/different groups within community)?
    a. *Show on map how shocks affected communities*

2. Resilience of what?

A. Household level

1. Was the health of your family impacted in the face of shocks or stresses? How and who was impacted?
2. Were you able to maintain your food supply in the face of shocks or stresses? If not, please specify how it was impacted and to what extent?
3. Were natural resource management practices impacted in the face of shocks or stresses? How?

B. System level

1. How did the markets change in the face of shocks or stresses? How was supply chains impacted?
2. Did you see price fluctuation for food and other household items during shocks or stresses? How did this impact the community?
3. Was access to formal and informal loans impacted during shocks or stresses? How were they impacted?

3. Resilience through what?

A. Livelihood activities and changes in livelihood activities because of shocks/stresses

1. What kinds of livelihood activities are households engaged in? Has this changed in the last 5 years? How? Why?
2. Are these activities affected differently by different types of shocks/stresses? Please explain.

    a. Are some households better able to manage their livelihoods and assets in the face of shocks/stresses than others? What is different about these households?
    b. How does household labor availability affect a household's ability to deal with shocks/ stresses? Please explain.
    c. How do livelihood and vocational skills trainings affect a household's ability to deal with shocks/stresses? Please explain.
3. Do men and women have the same livelihood opportunities? Why, why not?
    a. Do they have equal access to the same types of information and resources? *(e.g., financial services, agricultural extension services, market information, livestock ownership, etc.)* Why or why not?
4. How have economic conditions over the last 10 years affected households' or the community's confidence or willingness to deal with shocks/stress?

B. Response to current shocks/stresses

1. Did households and the village know about the shock/stress in advance? (i.e., did they have access to timely information?)
2. What actions were taken to reduce the impact of the shock/stress?
    a. If actions were taken, how do you decide how and when to respond? What do you do first, second, etc.?
    b. What actions were most effective in reducing the impact of the shock/stress? *(rank effectiveness of each, if multiple actions taken)*
3. If no actions taken, why not?

C. Previous experience/information to respond to shocks/ stresses

1. As a whole, have preparations/and early warning to deal with shocks in the community improved, stayed the same, or gotten worse in the last 5 years? 10 years? Why, why not?
2. What are the main sources of information or training used by households and the community to prepare for or cope with the shock/ stress?
    a. Are some sources more trusted or preferred than others? Why?
3. How useful is the information in dealing with the shock/stress? Why?
    a. How could it be made more useful, or more applicable to your household and livelihood decisions?
4. Is there anyone or any group in the community that does not have access to the information? Who?

D. Community leadership and collective action

1. Are community leaders effective at organizing support to recover from and adapt to shocks/stresses for all members of the community? Why or why not?
2. Are leaders responsive to community needs/input? How does the community communicate their needs to leaders?
3. Who else/or what other groups and organizations in the community is helping community members to build resilience to deal with shocks/stresses?
4. Is the community engaged in collective action to help households recover from and adapt to future shocks/stresses? If not, why not?
    a. What kinds of collective action?

b. Is there collective action on: *(describe each and develop a matrix on a flip chart; use map to illustrate if available)*
   i. Maintaining or repairing important community infrastructure (e.g., roads, markets, schools, water sources, health posts, etc.)?
   ii. Managing common or critical natural resources?
   iii. Deciding on community priorities through meetings open to all?
   iv. Cooperative actions with other neighboring villages to recover from shocks/stresses that affect multiple communities?
   v. Engaging private sector/business or trade associations for market or value chain development?
   vi. Other activities?

a. *[For each collective action]* How is this collective action organized (e.g., through religious organizations, informal groups, NGOs, family forums, private sector/ business, other)?
b. Who participates and in what ways?
c. Which households or people are not participating in collective action? Why? Does everyone in the community benefit from collective action? If not, why not?

5. Do you think your village is successfully recovering from the shocks/stresses it is exposed to? Why or why not?
6. What do you think are the main differences between a community that successfully responds to a shock/stress and one that does not?
7. How has humanitarian aid or long-term assistance from NGOs over the last 5 years affected how the community responds to shocks/stresses? (*Note*: *differentiate long-term assistance from NGOs versus coordination among family groups/social networks*)
8. What are the most important factors that influence households' confidence to adapt and deal with shocks/stresses?

E. Bonding Social Capital

1. Are people within the community sharing resources with one another to recover from shocks/stresses? If not, why not?
   a. Which resources are they sharing (e.g., money, food, labor, information, other)?
   b. Who do they share with (e.g., family, neighbors, most vulnerable, etc.)?
   c. Who gets priority when sharing resources? *(ask participants to do a simple ranking of resources that are shared, and who gets priority)*
   d. What are people doing to help each other become productive again after a shock/stress (e.g., labor exchange, loaning inputs, animals, passing on information)?
2. How are the shocks/stresses (recurrent) affecting relationships within the community? (e.g., between individuals, households or between individuals and local governance, etc.)
   a. Are people more in debt or lending more and for longer periods of time in order to deal with the effects of the shocks?

b. Have the levels of trust within the community been affected? (i.e., do people within the community trust each other – more or less – to help during/after shocks/stresses)?

F. Bridging/Linking Social Capital

1. How has the way people and external contacts help each other changed over the past several years? Please explain.
    a. Who is the "biggest" person you called upon for help in the past year?
2. Do people in your village use their connections to people with influence (like in private sector/business, NGOs or Govt.) to access support? How?
    a. If not, why not?
    b. Are some people or groups in your village more likely than others to obtain support or benefit than others? Why/why not?
3. Is there new or renewed conflict due to shocks/stresses?
    d. Within the village/or between neighboring communities?
    e. If yes, how do households and the village deal with such conflicts? What, if any, kinds of conflict resolution mechanisms are used, and who uses them?
4. Do you feel that your sense of security/safety has changed (increased or decreased) over the last 5 years? Describe any changes in how people feel about their physical safety in the community.

4. Resilience for whom? *(Whose resilience are we trying to build? Who are we building resilience for?)*

A. Household decision making

1. Who in your household makes decision on the following: *(Develop matrix with responses of men/women/joint decisions; Probe for differences between men's and women's decision-making influence)*
    a. Production (e.g., what crops to grow/sell, what livestock to rear)?
    b. What products or livestock to buy/sell and when?
    c. What other income-generating activities to undertake?
    d. How income is spent by the household? (Including remittances? Giving to charity?)
    e. Whether to borrow (and for what purpose)?
    f. Whether the household or members move or migrate?
    g. Health and nutrition issues for women and children of the household?
    h. How the household responds or copes in the face of a shock/stress? (Probe: related to the above topics a-g, Does women's decision making on the previous topics change during times of stress?)
2. What's the difference between households where women have a strong or joint influence on decision making versus little or no influence on the previous topics (listed above)?

KII Topical Outline for Community Leader

Participation in Government or NGO programs

A. What Government or NGO programs are active here?
    a. Describe activities
    b. Do government and NGO or other programs coordinate activities?
    c. Who benefits and how? (men, women)
    d. Who does not participate/benefit? Why?
B. How have these programs affected the community?
    a. Positive changes
    b. Negative changes
C. Effects of external support on community sharing?
D. Which programs are managed well? Which are not managed well? Why?
E. Recommended changes to these programs? What is missing?
F. Has the community used its links to:
    a. Obtain government services? Which ones? For whom?
    b. Advocate for change? On what issues? What was the result?
    c. Gain access to formal safety nets?

Shocks, Risks, & Coping Strategies

A. Types of coping strategies when income or agricultural/livestock production is not enough?
B. Reliance on other households during income and food shortages?
    a. What kind of support?
    b. Any changes in this practice? How? Why?
C. Household and community adaptations to reduce long-term shocks
D. Role of the community in reducing the impact of shocks. Any changes in the last 5 years? What changes?
E. Role of organizations in managing shocks
    a. Government
    b. NGO, community organizations
    c. Any changes in the past 5 years? What changes?

KII Topical Outline for Government or NGO Personnel

A. What are the main challenges your program is attempting to address? (Who is doing what to address the main challenges facing the community?)
    a. What activities are being implemented to deal with these challenges?
    b. How long have you been implementing activities in this community?
    c. Has it made a difference? How? If not, why not?
    d. Who else is working in the area?
    e. Do you anticipate these activities continuing in the future?
    f. What is process for dialogue with communities?
B. What has your program done to help communities reduce the impact of shocks/stresses that affect the community? How has this changed over the last 5 years?

KII Topical Outline for Civil Society or Private Sector Personnel

A. What Government or NGO programs are active here?
    a. Describe activities, including that challenges they're attempting to address?
    b. Do government and NGO or other programs coordinate activities?
    c. Who benefits and how? (men, women, youth)
    d. Who does not participate/benefit? Why? (minority groups, disabled, etc.)
B. How have these programs affected the community?
    a. Positive changes
    b. Negative changes (How have programs affected community dynamics/ informal social safety nets? Why?)
C. Which programs are effective? Why? Which are less effective? Why? What could be done differently?
D. Are these programs responsive to community needs/input? How does the community communicate their needs regarding:
    a. Government services (health services, education, roads)?
    b. Advocating for change? On what issues? What was the result?
    c. Accessing formal safety nets?
E. What has the community done to reduce the impact of shocks/stresses that affect the community? How has this changed over the last 5 years?
F. Do you think your community is successfully recovering from the shocks/stresses it is exposed to? Why or why not?
G. What do you think are the main differences between a community that successfully responds to a shock/stress and one that does not?

Annex 5 – Cambodia background material

[Please see Module 1 - Supplementary Annex Volume 1]

Annex 6 – Module 1 Evaluation Form

[Please see *Asian Resilience Monitoring & Evaluation Experiential Learning Event: Module 1 – Training Evaluation* provided in Supplementary Annex Volume 2]