PARTICIPATORY RESILIENCE ANALYSIS AND MEASUREMENT TOOL (PRAM)

GUIDANCE DOCUMENT

OCTOBER 2020

WHAT'S INCLUDED IN THIS GUIDE?

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ACKNOWLEDGEMENTS

SECTION 1
INTRODUCTION AND BACKGROUND

Since 1979, Action Against Hunger has engaged in collective efforts that aim to address the root causes of hunger and undernutrition. The impact of natural hazards such as floods, cyclones, earthquakes and drought pose a significant threat to the advancement of this work and the achievement of national and international goals related to achieving zero hunger. Climate change and the potential for increased climate-related shocks and other stresses represent a further challenge to achieving food and nutrition security in many poor and vulnerable communities. Reducing disaster risk and building resilience to climate change in order to support sustainable livelihoods and food and nutrition security is therefore a core element of Action Against Hunger's work.

The Participatory Resilience Analysis and Measurement (PRAM) tool was born of the desire to be able to assess, measure and track changes in the resilience levels of households and communities that participate in Action Against Hunger's targeted disaster prevention and resilience, and nutrition security interventions. Measuring changes in resilience is considered a key element to understanding how resilience manifests itself in different contexts, and can provide a basis for understanding the drivers of resilience in the most vulnerable communities, and therefore how best to address the root causes of vulnerability. The PRAM has been developed with this in mind, and seeks to meet three closely interlinked needs:

MEASURE CHANGES IN RESILIENCE: The primary purpose of the tool is to measure changes in the resilience level of the population participating in targeted Action Against Hunger interventions, by quantifying resilience at the baseline and end-line of a project, according to a predefined scoring framework.

EFFECTIVE TARGETING OF INTERVENTIONS FOR THE MOST VULNERABLE: Combined with other analyses like a Nutrition Causal Analysis (NCA) and Participatory Capacity and Vulnerability Analysis (PCVA), the PRAM will contribute to extensive data collection that can inform decisions on targeting interventions towards the most vulnerable. This complements the wider context analysis, which can help steer and support the development of community action planning.

INFORM THE DESIGN OF A PROGRAMME OR A PROJECT: The results from the resilience analysis will highlight specific gaps in resilience capacities, hence pointing towards the need for improvement and the identification, design and prioritization of relevant strategies and targeted activities to be developed and implemented.

DEVELOPMENT OF THE TOOL

The current iteration of the PRAM is a result of a lengthy process combining an extensive review of relevant theory and practice related to resilience measurement, with consultations both internally within Action Against Hunger, and with external stakeholders and practitioners. A previous version of the PRAM was also piloted and implemented in the Philippines, Cambodia, Nicaragua, Mali and Senegal. To better understand and pinpoint the need for a resilience study methodology, an initial internal consultation was conducted in September 2015. An online questionnaire was sent to more than 60 key people from Action Against Hunger offices in the USA, Spain and France. The following core principles came out of this consultation process, and have been used to guide the PRAM development:

LEVEL OF ANALYSIS: The detail of analysis and final outputs of the PRAM process are based on the principal of "good enough". This means that while the final results are unlikely to be statistically comparable across populations, due to sampling limitations, they will be detailed enough to facilitate a valuable analysis. The methodology, and the steps outlined in this guide, do however provide the framework for which a more detailed statistical analysis can be carried out if so desired.

EASE OF APPLICATION: The methodology is simple enough for project managers or technical staff, with the support of the field team, to carry out the study with minimal additional training required. In-house technical capacity should be sufficient and there should be no need for an external consultant to conduct the study.

TIMEFRAME: The team should be able to conduct the analysis and scoring for one unit in approximately four weeks, from the planning phase to the final analysis. It will take longer if the analysis is conducted in several study areas.

BUDGET: The cost invested should be reasonable and the method practically possible and quick. Depending on the number of communities included in the study sample, between 5,000 USD and 10,000 USD per unit of study.

PARAMETERS OF THE TOOL

Experience from large-scale resilience-building programmes[1] highlights that resilience is highly contextual, and pathways to enhancing it vary greatly from one location to the next. Social inclusion and meaningful participation in planning and decision-making by those that are affected by climate variability and extremes are also the cornerstones of Action Against Hunger's approach to building resilience. With this in mind, an effort has been made to develop a tool that is **structured** enough to enable a degree of coherence, methodological robustness and practical applicability, but also **flexible** enough to allow it to be adapted to different contexts and reflect the different environments and priorities that participants may have according to their specific situation.

The PRAM is primarily a **quantitative instrument** that uses subjective self-reporting to measure people's own abilities to deal with risk.[2] For reasons of practicality, the numerical data is primarily collected at village level in focus groups using multi-voting techniques, and as such is not based on a representative sample of households, as is the case with other similar methodologies. However, when time and budget allow, household surveys can be used to collect the level of data that would be required for a more representative sample. The PRAM data is processed and analyzed **using a customized analytical framework that organizes the data for analysis**, which can be used in an attempt to quantify levels of resilience and make general comparisons in changes in resilience over time, and across communities.

The PRAM process allows for the simultaneous collection of **qualitative data** that should be used to support the quantitative analysis. The collection of qualitative data is important for a more nuanced analysis of why and how resilience might manifest itself in a given community, providing a more detailed picture of the situation in the study area. This will be essential for project design as well as monitoring and evaluation.

The PRAM is designed so that it can be carried out in parallel with a **nutrition causal analysis (NCA)** when relevant. At this stage, Action Against Hunger is not attempting to establish causation or confirm pathways between shocks from natural hazards and undernutrition in the study area: the PRAM is a completely independent tool that has intrinsic value when implemented in isolation of other analyses. Nonetheless, this important information, gathered by a NCA, can support an analysis of the potential existence of a relation between the impact of natural hazards, and food and nutrition security.

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1   Bahadur, A.V. et al. (2015)
2   Jones, L. (2018). This approach to subjective, self-reporting of resilience has been pioneered by the BRACED Rapid Response Research (RRR) methodology.

The primary intended users of this guide are Action Against Hunger project managers, and technical and field staff and partners, but it may also prove useful to other food and nutrition security practitioners. It is also hoped that the development of this tool and guide will contribute to the wider community of resilience measurement practice through lessons learned during its application in the field and its evolution over time.

This first iteration of the PRAM will focus primarily on resilience to the impact of **natural hazards**. At a later stage, other types of shocks and stresses such as conflict, economic and financial shocks, and epidemics might be included. Resilience to disease and viruses has become particularly salient in the wake of the Covid-19 pandemic and the flexibility of the tool does allow for changes to be made in order to capture this important element.

LINK TO THE PCVA AND OTHER RELEVANT TOOLS AND PROCESSES

The PRAM has been designed to be a stand-alone analytical tool that can be used to fulfil the project management and monitoring and evaluation (M&E) objectives previously stated, through the production of numerical values of resilience in a selection of villages within a livelihood zone. However, the PRAM does not seek to replace existing project management tools, but rather to provide an additional perspective and analytical framework to complement them. As such, the PRAM can be used either completely on its own, or in parallel with the Participatory Risk, Capacity and Vulnerability Analysis (PCVA) that was developed by Action Against Hunger in 2012, which is a community-based approach used to develop community action plans and inform the design of interventions at the individual village level. There is, however, an opportunity for an exchange of relevant information so that practitioners can avoid duplication of tasks, resource waste, and respondent fatigue when carrying out multiple analyses in the same locations. In order to facilitate the coherent and coordinated use of the two tools, the overlaps and commonalities between the two processes have been highlighted in Annex 4. Continued implementation of the PCVA process is encouraged, as its objectives differ from the PRAM, and it allows for an overall more contextualized and site-specific evaluation of vulnerability and capacity, as there is no intention for comparison across different communities. The PCVA Practitioner's Manual for Field Workers can be found at the following link: https://www.actionagainsthunger. org/publication/2013/01/participatory-risk-capacity-vulnerability-analysis-practitioner-manual-field

LINK TO PROJECT MANAGEMENT TOOLS

Reducing resilience to a simple score or set of numerical values has its limitations in terms of analytical worth, and understanding true resilience and what drives it at the local level. Conversely, quantifying resilience has its benefits for traditional project management processes, such as results based reporting. By quantifying changes in resilience, we can reliably report changes against specific and measurable indicators that are often a requirement in logical frameworks. When logical frameworks require the inclusion of performance-based indicators such as *number of people in which resilience status has improved*, the outputs of the PRAM can provide a simple way of presenting this change in the population. Furthermore, the way in which the PRAM breaks down resilience into its component parts, identifying actionable areas for intervention, allows project managers to present pathways to resilience in the design of their projects. This is something that will be increasingly important as the inclusion of Theories of Change in project design and reporting increasingly become a requisite for donors. Further guidance on using the PRAM for the design and management of projects and programs is provided in step 6 (page 33) of the PRAM tool implementation discussion.

LIMITATIONS OF THE PRAM

The PRAM tool aims to find the right balance between: building in enough flexibility to account for the socio-political, economic and environmental differences in its areas of application; and having a framework and methodological approach that is structured enough to allow it to be accessible, user friendly, and methodologically robust enough to be used to make comparisons over time and in different geographies. However, in doing so, there are inevitably certain trade-offs and compromises that have to be made.

Firstly, the **indicators and survey questions** that are proposed for data collection are generalized and will ideally require adapting to the context of the PRAM study area and the objective of its application. Forming indicators and appropriate survey questions is a specialized and often time-consuming task that should ideally include the participation of local stakeholders, and usually requires prior experience with social research methods and monitoring and evaluation practices. Therefore, if the indicators and survey questions are adapted, additional investment in time and resources will likely be required.

Secondly, the participatory **weighting process** of the core elements of the PRAM attempts to place greater importance on some resilience elements than others in a given study area. It is recognized that this is currently an imperfect process, but it offers an important additional element that seeks to encourage participation and buy-in to the process from local stakeholders, as well as offering a further contextualized layer for the final analysis.

Finally, the observed numerical values that are generated from the PRAM application are a simple representation of resilience that can **facilite the identification of changes over time** and between communities. This cannot in itself be used to measure impact or project performance, which would require additional steps and analysis. As such, the PRAM results should be viewed as a starting point for further analysis, rather than a definitive judgment on the success or failure of interventions.

In summary, the PRAM is an imperfect tool, but is considered to add significant value to the work of Action Against Hunger's resilience-building interventions, by offering an addtional analytical lens that can guide disaster risk reduction and climate change adpation work, and achieve the goal of universal food and nutrition security. The PRAM will evolve over time as further insights and lessons are learned from its application.

OVERVIEW OF THE GUIDE

This guide provides a step by step account of how to implement the PRAM. The following sections provide a brief overview of the conceptual underpinnings and measurement framework of the PRAM tool, before providing a step by step guide for practitioners on how to undertake a PRAM study and analyze the results. A set of tools and further guidance that can be used to implement the PRAM are included in the annex and cross-referenced in each step, in order to facilitate their use.

In addition to the guide and the tools presented in the annex, a set of templates (excel spreadsheets) have been developed to facilitate data collection and analysis. They include;

1   DATA STRUCTURE MATRIX

2   PRAM SCORECARD

3   DATA ANALYSIS MATRIX

These are available for download at https://knowledgeagainsthunger.org/technical/participatory-resilience-analysis-and-measurement-pram-tool/
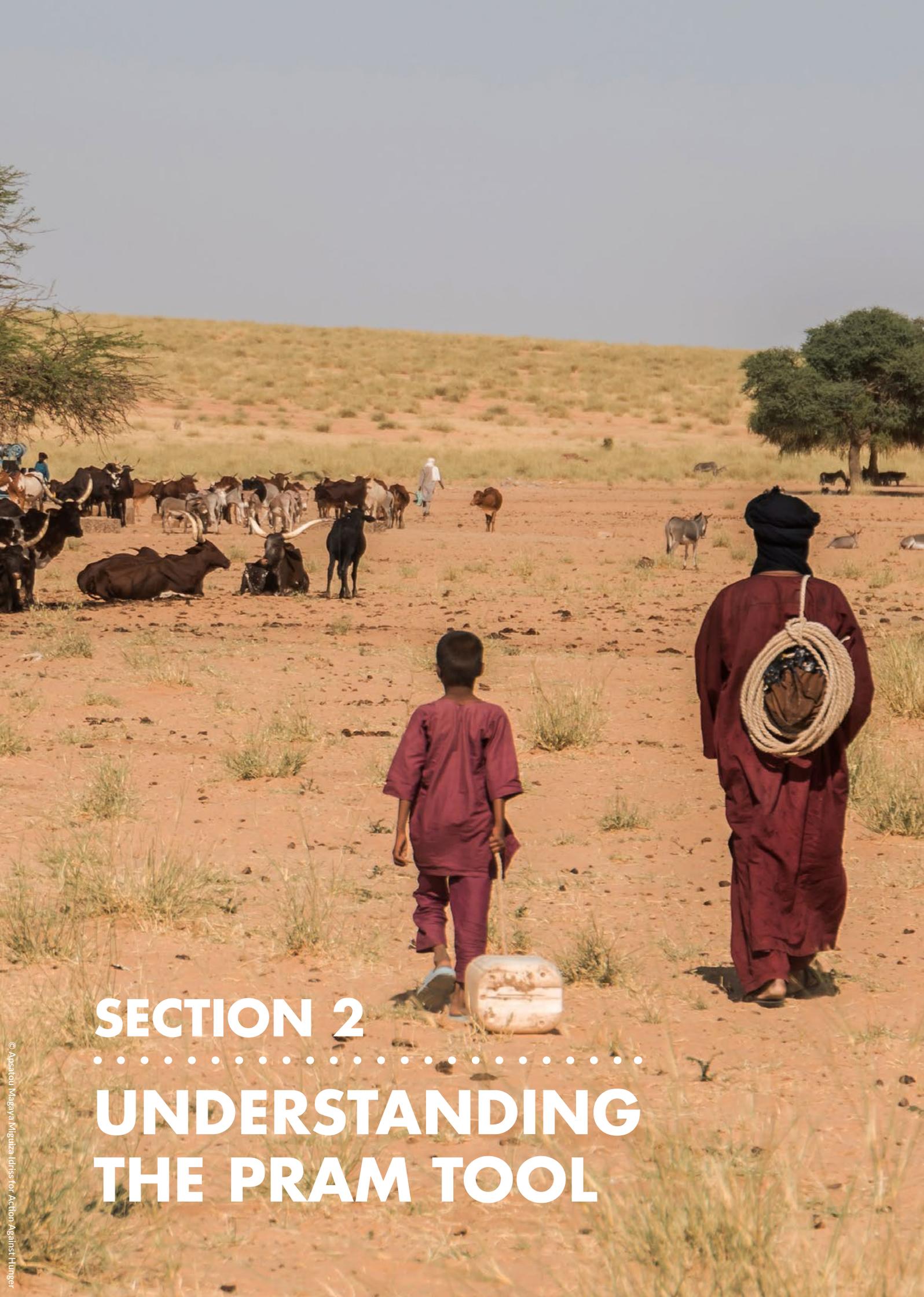
SECTION 2
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UNDERSTANDING THE PRAM TOOL

A CONCEPTUAL FRAMEWORK FOR MEASURING RESILIENCE

How resilience is measured is very dependent on how it is defined and understood, so it is important that there is a common understanding among the users of the PRAM about how resilience is understood in the context of its application.

Resilience is a multi-faceted concept that encompasses many distinct and inter-related elements, and unlike many concepts in the development and humanitarian sphere, there is no universally agreed definition of resilience. However, as improving resilience to shocks and stresses resulting from natural phenomena becomes an increasing priority, there is growing consensus about what constitutes disaster resilience. With this in mind, Action Against Hunger defines resilience as:

> THE CAPACITIES OF **PEOPLE, HOUSEHOLDS, COMMUNITIES**, AND THE **SYSTEMS** ON WHICH THEY DEPEND, TO **RESIST, ABSORB, COPE AND ADAPT** WHEN EXPOSED TO A HAZARD OR MULTIPLE HAZARDS, WHILE **PRESERVING, RESTORING, OR ENHANCING** THEIR FOOD AND NUTRITION SECURITY.[3]

Resilience, as conceptualized by Action Against Hunger, is therefore viewed as a means of achieving food and nutrition security, and is manifest in a **set of capacities** that enable **individuals, households and communities** to effectively function in the face of **hazards** (shocks and stresses).

This conception of resilience underpins the PRAM methodological framework and has been further elaborated based on a measurement framework first developed by Mercy Corps in 2016. This framework, presented in figure 1, provides a basic articulation of how a programme or project builds resilience towards a specific wellbeing outcome. Answering the key questions identified in the graphic provides us with a framework for how resilience can be assessed in any given context.

FIGURE 1: CONCEPTUAL FRAMEWORK FOR MEASURING RESILIENCE[4]

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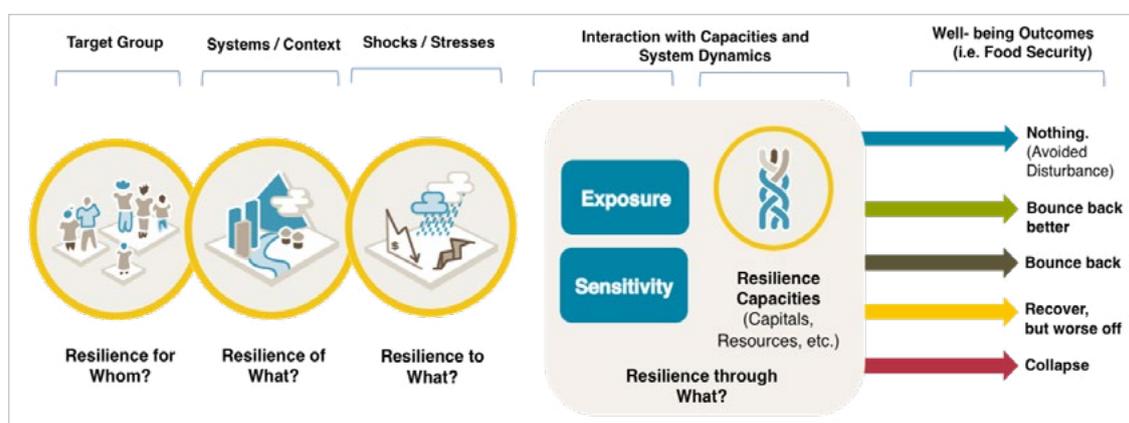
3   Action Against Hunger, (2012)

4   Vaughan and Henly-Shepard (2018).

RESILIENCE FOR WHOM AND OF WHAT?

Vulnerability to natural hazards and climate change varies within countries, communities and even households, and is often driven by the inequitable distribution of rights, resources and power. Hungry and undernourished people and marginalised groups in developing countries – particularly women and young children – are typically among the most vulnerable. The target population of the PRAM application will likely include individuals and households that make up these vulnerable groups. The key to answering the question *resilience for whom?* lies in understanding the attributes of these groups, including demographic factors such as gender, age and ethnicity, and cultural practices, as well as the geographic and social factors that drive their vulnerability.

Action Against Hunger targets its interventions at addressing the underlying drivers of food and nutrition insecurity, and advocates for integrated disaster risk management at community level that expands on the humanitarian mandate from saving lives to saving livelihoods. The answer to the question, *resilience of what?* in the case of the PRAM, refers mainly to livelihood systems and the key geographic, economic, social, and ecological elements that make up that system. Detailed guidance on identifying livelihood systems is given in the following section.

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EXAMPLE STUDY LOCATION OF THE APPLICATION OF THE PRAM IN MALI IN 2016

The Cercle of Kita is located in the Kayes Region in South-western Mali. The climate is tropical, and is characterized by two seasons: a rainy season (June-October), and a dry season (November-May) which has a cold period from November to February and a hot period from March to May. Economic activities are based on agriculture (including animal husbandry), which is the predominant livelihood activity. Key crops are millet, sorghum, maize, groundnuts, and cotton. Petty trading, gathering and logging are among secondary activities.

ML01 - Nomadism and trans-Saharan trade
ML02 - Nomadic and transhumant pastoralism
ML03 - Fluvial rice and transhumant livestock rearing (agropastoral)
ML04 - Millet and transhumant livestock rearing
ML05 - Dogon plateau - millet, shallots, wild foods, and tourism
ML06 - Niger delta/lakes - rice and livestock rearing (agropastoral)
ML07 - 'Office du Niger' - Irrigated rice
ML08 - North-west remittances, sorghum, and transhumant livestock rearing
ML09 - West and central rainfed millet/sorghum
ML10 - Sorghum, millet, and cotton
ML11 - South maize, cotton, and fruits
ML12 - South-west maize, sorghum, and fruits
ML13 - Bamako urban

International Boundaries
Regions
Capital
Cities

Three sites were selected for the PRAM study in Kita: Sakoura, Djougoun, and Niagané. They are located in the same livelihood zone (ML08) and are characterised by significant levels of food insecurity, undernutrition and exposure to multiple natural hazards.

RESILIENCE TO WHAT?

This refers to the shocks and stresses that impact people's capacities to achieve development outcomes. In any given community there are a long list of potential disturbances with varying degrees of potential severity of impact on food and nutrition security, and likelihood of occurrence. This initial version of the PRAM has been developed with shocks and stresses caused by natural hazards and climate change in mind. However, the conceptual framework allows for its easy adaptation for other slow-onset, social, and/or socio-natural stresses, such as disease epidemic, pest infestation, or persistent conflict, for example.

Table 1 below presents a list of some of the natural hazards that are likely to be considered in the PRAM analysis.

TABLE 1: TYPES OF SHOCK AND STRESSES OF NATURAL ORIGIN TO BE CONSIDERED IN THE APPLICATION OF THE PRAM			
GEOPHYSICAL	**HYDROLOGICAL**	**METEOROLOGICAL**	**CLIMATOLOGICAL**
- Earthquake - Landslide - Mudslide - Volcanic eruption - Tsunami	- Coastal flooding - River flooding - Flash flooding - Groundwater flooding	- Storm (wind and precipitation) - Tornado - Hurricane / typhoon - Strong winds	- Heat wave - Cold wave - Drought - El Niño/La Niña
Other slow-onset or chronic stresses that often have a human element include: rising sea level; rising temperature; ground water salinization; fluctuation of precipitation; changes in seasonality.			

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RESILIENCE THROUGH WHAT?

The PRAM identifies 24 **dimensions of resilience** that are based around a set of abilities, knowledge, behaviours, practices, and resources held by individuals, households, and communities, which are considered to be the traits that influence (positively or negatively) people´s capacity to anticipate, absorb, and adapt to shocks and stresses. The PRAM assumes that resilience is achieved by the positive advancement towards this set of characteristics and as such, we can use the PRAM to identify the degree to which each of these dimensions are contributing to resilience or vulnerability. We can then use this data to design projects and programmes that address specific gaps, as well as measure changes in resilience over time. The full list of resilience dimensions can be found in the Data Structure Matrix (See link on page 5).

The **sustainable livelihoods framework** and the **3As framework** provide us with a deeper understanding about what constitutes resilience, and provide the structure that is used to organize our dimensions of resilience. Using these two frameworks enables us to identify resilience dimensions that capture both the static and dynamic elements associated with resilience. The 3As framework identifies *three capacities* that capture the temporal aspect of resilience (pre-shock to post-shock), and the sustainable livelihoods framework identifies *six capitals* that represent resilience in a fixed point in time.[5] We should keep in mind that the three resilience capacities and six resilience capitals overlap and reinforce each other and so some resilience dimensions may refer to improvement in more than one capacity or capital.

RESILIENCE AS CAPITALS
THE SUSTAINABLE LIVELIHOODS FRAMEWORK ....

The Sustainable Livelihood Framework (SLF), first proposed by the United Kingdom Department for International Development (DFID) in 1998, has been used as a framework that explains resilience through an assessment of assets that stakeholders have control over, which are essential for people to achieve desirable livelihood outcomes. These assets are also considered the starting conditions that influence significantly the probability of being vulnerable or not to shocks in the future. This range of assets upon which livelihoods are built are organized under five capitals, and are discussed below;

FINANCIAL/ECONOMIC: examples include cash and other liquid resources, such as savings, credit, remittances, pensions.

NATURAL: examples include fresh water resources for drinking and irrigation, arable land, vegetation for grazing cattle, forest cover, and coastal mangroves.

PHYSICAL: examples include roads and bridges that connect farmers to markets, telecommunications networks that facilitate communication, and schools and hospitals.

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5   Serfilippi, E. and Ramnath, G. (2018)

HUMAN: examples include set of skills, knowledge, ability to work, and good health.

SOCIO-POLITICAL: examples include quantity and quality of social resources such as networks and access to wider institutions in society.

Figure 2 shows how these capitals are often presented and their interaction with the vulnerability context, transforming structures and processes and livelihood strategies to reach positive livelihoods outcomes.

FIGURE 2: THE SUSTAINABLE LIVELIHOODS FRAMEWORK
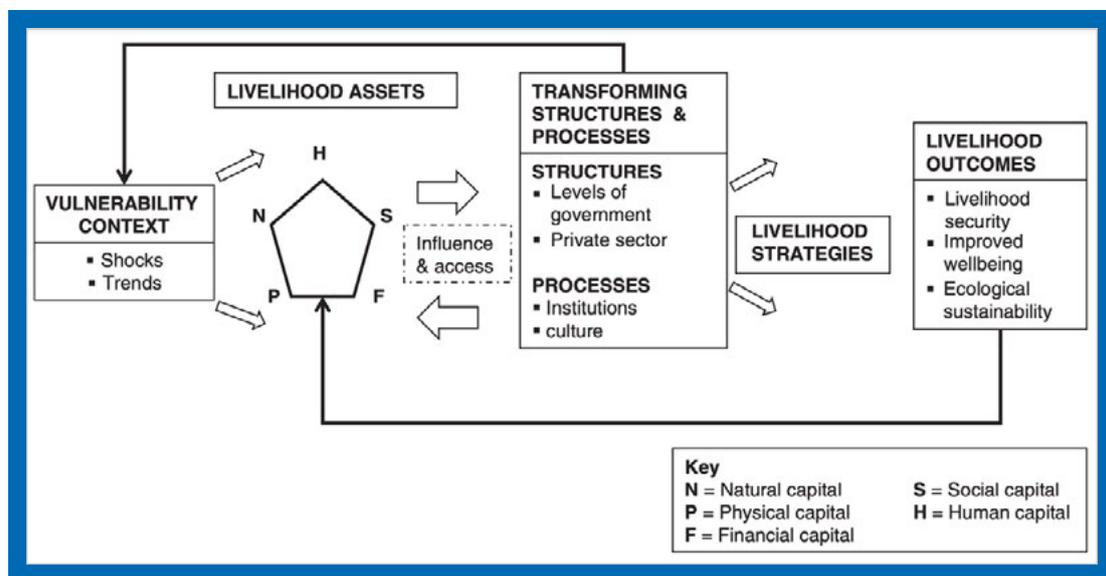
IMAGE SOURCE: BAUMANN, P. (2002). ADAPTED FROM FARRINGDON, J. ET AL. (1999)

The PRAM builds on the original SLF by adding a further capital that is explicitly rated to disaster management. The disaster risk management (DRM) capital includes assets that are specifically related to the ability to prevent, prepare for, and respond to known shocks and stresses.

RESILIENCE AS CAPACITIES
THE 3As FRAMEWORK ....

In order to capture the temporal aspect of resilience, the **3As framework** is used. This is broadly in line with the majority of organizations and initiatives that are leading the way in terms of innovation in resilience measurement. Anticipatory, absorptive and adaptive capacities are the chronological representation of the behaviours associated with the anticipation of and response to a shock.[6] As with the SLF, understanding resilience according to these three capacities is considered

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6   Serfilippi, E. and Ramnath, G. (2018)

particularly effective because it allows for the unpacking of the resilience concept according to recognizable behaviours and abilities, and the identification and organization of specific and measurable indicators that can enable a meaningful measurement of resilience at the individual, household or community level. A brief explanation of each capacity is provided below.

ANTICIPATORY CAPACITY – the ability to minimize exposure and vulnerability to the impact of known shocks and stresses by intentionally planning for them and taking specific protective action.

Anticipatory capacity is reflected in an individual, household or community's ability to forecast particular shocks, and take pre-emptive, targeted measures to engage with specific known shocks and stresses that are likely to occur in the medium to short term. The use of preventative measures, early warning systems, and planning and preparedness activities to manage disaster risk is central to anticipatory capacity.

ABSORPTIVE CAPACITY – the ability of systems, using available knowledge, skills and resources, to face and manage adverse conditions, emergencies and disasters.

Absorptive capacity is exercised during and immediately after a disturbance has occurred, to reduce the extremes in the short term and limit the impact on people's livelihoods and basic needs. Central to the concept of absorptive capacity is the *current availability* of a diverse set of options that ensure there is a greater chance that people will cope and recover quickly when exposed to a shock. This includes coping strategies that enable households and individuals to *withstand disruption* without complete collapse, and to *return to a functioning state*. For example, access to savings groups and/or insurance that can be deployed to meet consumption needs in times of crisis, or having social safety nets that can provide support if a household's ability to deal with a shock on their own is surpassed, are key to absorptive capacity.

ADAPTIVE CAPACITY – the ability of people, households and communities to adapt to multiple, long term and future risks, and also to learn and adjust after a disaster.

Adaptive capacity reflects changes in behaviour from mid-term to long-term if the system's capacity to absorb the shock is surpassed. While anticipatory capacity enables targeted responses to engage with specific known shocks and stresses that are likely to occur in the medium to short term, adaptive capacity is needed in the context of varied and potentially evolving risks, and long-term changes in a system to manage those changes.[7] It is the learning process that is considered central to the concept of adaptation in the PRAM, and includes the ability to **make incremental changes over the medium to long term based on lessons learned from previous experience and learning, and understanding of climate change and disaster risk.**[8] For example, adaptive capacity could be reflected in making informed choices about alternative livelihood strategies based on changing conditions, such

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7   Bahadur, A.V. et al (2015)
8   Oxfam International (2018)

as being able to switch crops or seeds, finding new income sources or changing physical location.

Adaptive capacity in the PRAM also encompasses elements of *transformative capacity* which is included in many conceptualizations of resilience. It is understood that the aspects of transformation refer to the capacity for **major changes in the structure and function of a system**. Such actions may relate to governance mechanisms, policies and regulations, and formal social protection mechanisms that are part of the wider system in which communities are embedded. Due to its primarily humanitarian focus, these transformative elements tend to fall outside of the scope of Action Against Hunger's work. Therefore, the 3As Framework was preferred as it was seen as more relevant for short- to mid-term programming, and easier to adopt for emergency-oriented workers used to thinking in terms of preparedness/response/recovery, but less familiar with the distinction between the developmental concepts of adaptation/transformation. However, some transformative aspects have been incorporated into the interpretation of adaptive capacity.

Table 2 below presents some examples of resilience dimensions that are associated with each of the 3As discussed above.

TABLE 2: EXAMPLES OF DIMENSIONS OF RESILIENCE ACCORDING TO THE 3A'S FRAMEWORK		
ANTICIPATORY CAPACITY	**ABSORPTIVE CAPACITY**	**ADAPTIVE CAPACITY**
- Existence and adequacy of early warning systems for specific known hazards. - Community coordination and response mechanisms in place. - Prevention and mitigation; e.g planting mangrove forests on coastline exposed to storm surge	- Availability of informal social safety nets - Access to cash savings - Availability of/access to insurance	- Livelihood diversification and adoption of improved cropping/livestock management practices - Exposure to climate forecasting information - Participation in local decision-making

EVOLUTION OF THE CONCEPTUAL FRAMEWORK ....

The dimensions of resilience have been identified based on an extensive review of concepts and practices related to resilience and its measurement. However, we need to keep in mind that, with this methodology, as with many others, the quality of the conceptual framework is only as good as the expert judgement used to construct it. The dimensions that comprise our conceptualization of resilience are

selected based on their perceived ability to act as a proxy measure for this complex concept. Over time, it is important to test this model and observe any inconsistencies in the levels of data and the correlation between resilience as an outcome and nutrition security. These dimensions are therefore not meant to be fixed, nor do we claim to have presented a definitive list of dimensions for study. What is presented here is based on our current understanding of the subject and is likely to change as lessons are learnt from the PRAM implementation and from further feedback.

RESILIENCE FOR WHAT?
ACTION AGAINST HUNGER'S WELLBEING OUTCOME

Resilience is a means, rather than an end in itself. We therefore ask the question, *resilience for what?* so that we have a clear idea of the ultimate goal or impact that we want to achieve by improving resilience outcomes. For Action Against Hunger, the wellbeing outcome of resilience is nutrition security. Due to the complexity of measuring nutrition security and for feasibility purposes, nutrition security can be ultimately observed through the prevalence rate of stunting and acute malnutrition. In the context of resilience, the seasonal and long-term evolution of the prevalence rate when correlated with shocks is of particular interest. The PRAM does not seek to establish causation between resilience and improved nutrition security, but rather simply observes any correlation between changes in nutrition security and resilience.

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THE PRAM METHODOLOGY

The PRAM is predominately a quantitative tool that uses subjective self-reporting from participants on the extent to which they meet the resilience criteria, defined by the dimensions of resilience discussed in the previous section. This subjective approach is based on the premise that people understand the risks they face, and can use methods of self-evaluation to subjectively measure their resilience. It also allows for contextual information that informs the wealth of knowledge people have of their own resilience to be taken into account.[9]

FIGURE 3: EXAMPLE OF A PRAM SURVEY QUESTION

CAPITAL: Financial/Economic
DIMENSION: Availability and Access to Financial Mechanisms
INDICATOR: Availability and access to savings and/or affordable savings mechanisms in the community

If a [insert hazard] hit in the near future, our household would have access to enough savings to replace lost income in the short-medium term.						
Perception of vulnerability			Neutral	Perception of capacity		
Strongly disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
-3	-2	-1	0	1	2	3

Respondents are asked to rate their levels of agreement with the statements provided, ranging from strongly agree to strongly disagree. These responses are then coded on a scale from -3 (high vulnerability/no resilience) to 3 (high capacity/ resilience) which enables the responses to be converted into a numerical score. This approach allows for each dimension to be compared individually, as well as allowing the generation of indexes for the 3 capacities, the 6 capitals and a final collective score. Figure 3 below provides an example of a typical question that would be asked in a PRAM study.

SUBJECTIVE RESILIENCE QUESTIONS: The dimensions of resilience provide a structured framework for understanding the specific capacities and assets that contribute to resilience in a household, which can be aggregated to give an idea of resilience at the village level. The resilience dimensions are not likely to change from one assessment to another, but they provide a basis from which the questions can be adapted to specific contexts while keeping the general framework constant. In order to support teams to develop or adapt the questions, a resilience vision has

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9   Jones, L. (2018)

been identified for each dimension. The resilience vision seeks to summarize how resilience is imagined to manifest itself for each dimension of each capital and capacity. Having a clearly articulated vision of resilience for each dimension enables us to formulate questions that specifically address this vision, and allows us to measure whether or not our community of study is living in that reality.

INDICATORS: In order to further support the identification of appropriate questions, the PRAM presents a series of indicators for each dimension. The Data Structure Matrix[10] presents the current set of indicators and questions. Both the indicators and the questions have been formulated based on an extensive review of related literature and current practice, as well as lessons learned through piloting the tool and feedback from stakeholders. As with the final questions, and in line with the principal of flexibility and contextualization, the indicators presented in the Data Structure Matrix are intended to be used as a guide for practitioners who may wish to develop their own indicators or use only selected indicators which they feel best approximate the dimension of resilience in question, considering the socio-political, economic and geographical context on the ground at the time of the PRAM implementation.

Where more than one indicator and question are identified for each dimension, they can be used as a simple index. In this case a simple average of the indicator scores will be used as the final dimension score. Table 3 below presents an example of the resilience vision, indicators and questions from the Data Structure Matrix.

TABLE 3: EXAMPLE FROM THE DATA STRUCTURE MATRIX

RESILIENCE CAPITAL	3A'S	DIMENSION	RESILIENCE VISION	INDICATOR	QUESTION
Social cohesion and participation in decision making (Social Capital)	Anticipatory Capacity	Village leadership and communication	Effective leadership within the village allows for self-organisation and effective and inclusive communication in times of crisis.	Self assessment of effective village leadership in times of crisis	If a [insert hazard] hits in the near future, I am confident that village leaders will organise an effective response. Strongly agree | Agree |Slightly Agree | Neither agree nor Disagree | Slightly Disagree | Disagree | Strongly disagree
				Perceived ability to self-organise and react to crises	Individual households in the area where I live, work together in times of crisis. Strongly agree | Agree |Slightly Agree | Neither agree nor Disagree| Slightly Disagree | Disagree | Strongly disagree
				Perceived effectiveness of communication within the village in times of crisis	My village keeps people informed about issues that are relevant to them in times of hardship. Strongly agree | Agree |Slightly Agree | Neither agree nor Disagree | Slightly Disagree | Disagree | Strongly Disagree

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10   Available at the link provided on page 7

The indicators can be adapted to a specific hazard (recommended) or can be used to gather a general snapshot of multi-hazard resilience. They may also need to be adapted according to the objective of the study. For **monitoring and evaluation purposes**, the indicator should be adapted to include measurable and timebound elements, in order for changes to be observed over time and answer evaluation questions. For example, for the dimension "availability and access to financial mechanisms" in the Economic Capital, the general indicator *"availability and access to savings and/or affordable savings mechanisms in the community"* might change to *"90% of households report having access to enough savings to maintain current levels of food consumption in the case of a sudden loss of income".*

QUALITATIVE ANALYSIS: Reducing resilience measurement to purely nominal values risks missing out on a depth of understanding about how and why resilience capacities and assets may be contributing to resilience and nutrition security or driving vulnerability in the study areas. A simultaneous qualitative analysis is therefore incorporated into the PRAM methodology. Details of how to conduct the qualitative analysis are given in the data collection step in the next section.

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SECTION 3
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CARRYING OUT
A PRAM STUDY

OVERVIEW OF THE PROCESS OF CONDUCTING A PRAM STUDY

PHASE 1: PREPARATION OF THE PRAM STUDY

STEP 1
DEFINE THE OBJECTIVES AND IDENTIFY THE STUDY AREA

STEP 2
COMPOSE AND TRAIN THE TEAM

STEP 3
PREPARE THE PRAM AND PLAN THE FIELD WORK

PHASE 2: CONDUCTING THE PRAM STUDY

STEP 4
PRAM CONTEXTUALISATION THROUGH LOCAL EXPERT CONSULTATION

STEP 5
PRIMARY DATA COLLECTION

PHASE 3: CONCLUDING THE PRAM STUDY

STEP 6
DATA ANALYSIS

STEP 7
DISSEMINATION OF RESULTS

PHASE 1 – PREPARING THE PRAM STUDY

The preparation phase of the PRAM process consists of three steps.

STEP 1	▶	STEP 2	▶	STEP 3
DEFINE THE OBJECTIVES AND IDENTIFY THE STUDY AREA		COMPOSE AND TRAIN THE TEAM		PREPARE THE PRAM AND PLAN THE FIELD WORK
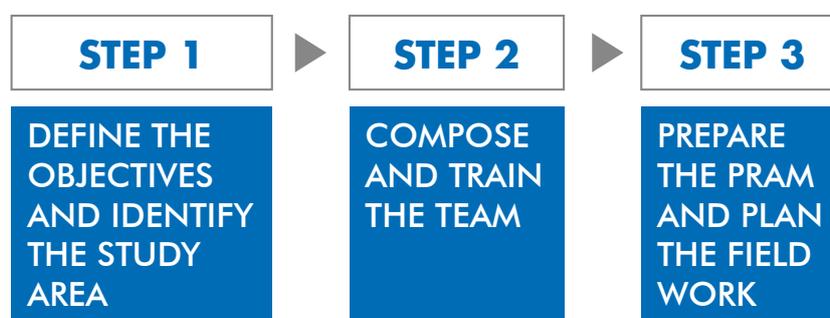
STEP 1
DEFINE THE OBJECTIVES AND IDENTIFY THE STUDY AREA

DEFINING THE OBJECTIVES

In this first part of the process, we need to ask ourselves, why are we conducting the PRAM? The scope of the study is very dependent on what our overall objective is, and defining the scope will be important for tailoring the PRAM implementation to meet our specific needs, from the timing of its application, to the details of the final analysis. The following points are examples of possible PRAM application objectives, building on those mentioned in the introduction:

PROJECT MONITORING: The primary application purpose of the PRAM will be monitoring changes in resilience in a given population, over a defined period of time, with the view to understand what resilience is, in a specific area, and how it can be strengthened. This allows project managers and stakeholders to monitor changes in resilience and make informed judgements about whether a project or programme is effective in meeting its objective of improving resilience status. The PRAM will also feed into logical frameworks, as it can be used to define and report against indicators. A baseline must be established at the start of the project in order to measure changes over time.

PROJECT EVALUATION: In cases where the PRAM will be used for evaluation purposes, the team should consider some of the following points:Primary evaluation questions will have to be established at this stage, and indicators and survey/focus group questions adapted to meet the information needs of the evaluation.

Although not the primary purpose of the PRAM, if there is a desire to establish attribution of changes in resilience to a specific project, a control group will have to

be identified (see Box 1 for further details on carrying out an impact evaluation).

IDENTIFY VULNERABILITY AND RESILIENCE CAPACITY WITHIN A LIVELIHOOD ZONE: The PRAM may be used to analyse the vulnerability and capacity of villages within a common livelihood zone in relation to the 25 dimensions of resilience. This can provide detailed information to plan targeted interventions that aim to improve resilience in the study area. In this case, there is no baseline or end-line study; the full PRAM study is simply carried out at the beginning of the project cycle. A clear rationale for the selection of the study area should be included here and may be based on Action Against Hunger's strategic objectives, the specific vulnerability context of the community, or requests for cooperation from local and/or international partners.

COMMUNITY ENGAGEMENT AND AWARENESS RAISING: The PRAM may also be used as a way of raising awareness of climate change and disasters in a population where Action Against Hunger does not yet have a presence. In this case, the demands on financial and human resources may be less, so the PRAM can be implemented in a more informal way to get a snapshot of resilience in the area.

This is also the stage in which a decision will be made with regards to whether to take a multi-hazard approach, or a hazard-specific approach where 1 -3 different hazards are assessed individually. This will depend on factors such as time and financial resources, capacity of the team, and the objective of the PRAM implementation. Whatever the ultimate goal of the PRAM study is in any given context, it is important to state this clearly from the outset, in order to guide activities in the following steps.

SELECTING THE VILLAGES
RESILIENCE FOR WHOM? ....

In cases where there are no ongoing interventions, the target population that will participate in the study will have to be identified. The selection may be based on Action Against Hunger's strategic objectives, the specific vulnerability context of the community, or requests for cooperation from local and/or international partners. However, the selection of the villages will likely be part of a wider analysis that considers factors such as disaster risk, nutrition status, accessibility, and safety and security, and will be driven by the priorities of Action Against Hunger and the partner country. As much as possible, local authorities and key civil society actors should be involved in the selection process.

Figure 4 below shows a multi-hazard risk map of the Philippines, which is an example of the type of information that will be used in the selection of the study area and participating villages. The map shows the multi-hazard risk index at municipality level. In addition to the overall risk (panel 1), the figure also shows exposure (panel 2) and vulnerability (panel 3) separately. We can see that exposure to natural hazards is particularly high in the northern and central parts of the

country (primarily due to a combination of typhoons, landslides and earthquakes), and high levels of vulnerability prevail in the south.

FIGURE 4: MULTI-HAZARD DISASTER RISK MAP OF THE PHILIPPINES
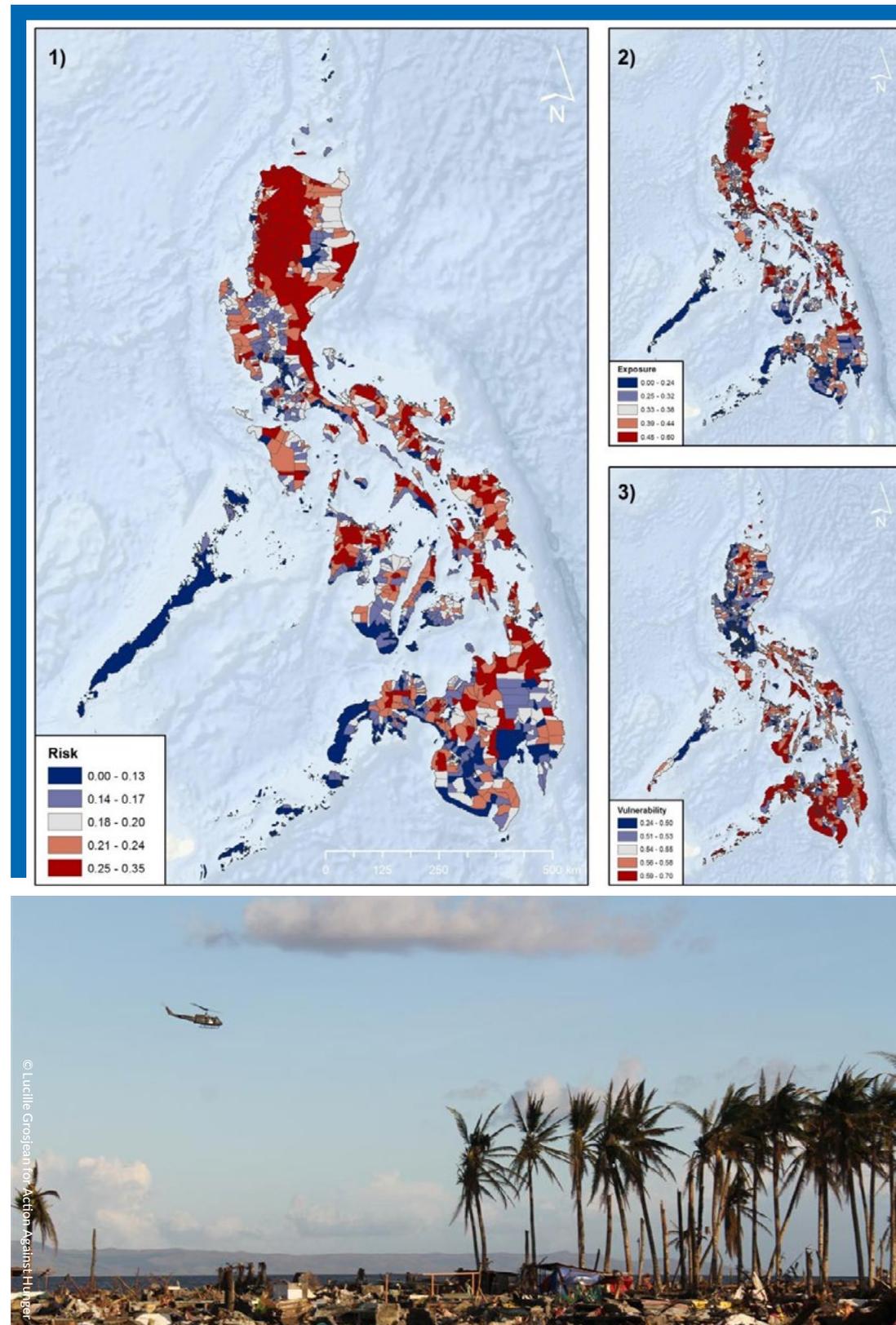
BOX 1
CONTRIBUTION AND ATTRIBUTION IN EVALUATING IMPACT

Interventions that seek to improve nutrition and food security outcomes by building disaster resilience, such as those realised by Action Against Hunger, are not implemented in isolation. Other drivers of change, such as global food prices, public policy, and private sector development – which have nothing to do with the programme in question – can all lead to changes related to a stated outcome. Attributing quantitative changes in resilience to a particular Action Against Hunger project is thus problematic: simply comparing baseline and end-line project data does not solve the problem, as the observed change is likely due to both project-related and external effects. In order to overcome this, evaluations that seek to attribute impact to a specific set of activities attempt to create a counterfactual – a scenario which allows for the study of changes in a comparable population in the absence of the project. This has numerous methodological, ethical and practical difficulties, but is the only way to be able to satisfactorily attribute changes in resilience to a specific intervention.

Experimental and quasi-experimental methods required for impact evaluations are challenging to design and carry out, and require significant resources and expertise. As a result, analysing the contribution an intervention has made to a change or set of changes is often a more practical and pragmatic approach, especially in the context of resilience building interventions. Contribution analysis is based on a recognition that it is difficult to prove attribution for many development interventions, and so aims to produce a credible, evidence-based narrative that a reasonable person would be likely to agree with, rather than to produce conclusive proof. One of the core components of this analysis is the presence of adequate evidence showing that change occurred. The outputs of the PRAM implementation thus have an important role to play in such an analysis.

Source: INTRAC 2017

IDENTIFYING THE STUDY AREA – RESILIENCE OF WHAT? ....

A key element of the PRAM is its use as a tool to compare levels of resilience across different villages. In order to make a basic comparison, there must be a degree of homogeneity across the different populations studied. Thus, in addition to the criteria mentioned previously, when it is desirable to make a comparison between study areas, each area must meet the criteria of:

(1) COMPARABILITY OF LIVELIHOODS: Each application of the PRAM that seeks to make comparisons across different villages should use common livelihood zones as defined by the Household Economy Analysis (HEA) approach.[11] This approach is consistent with other studies such as Nutrition Causal Analysis. When livelihood zoning does not exist in the country, it should be possible to identify an area with similar characteristics based on socio-economic secondary data gathered. Figure 5 shows an example of livelihood zoning in Senegal.

(2) COMPARABILITY OF DISASTER RISK: Livelihood zones can be extensive, and the disaster risk profile from one village to another could be quite different within the same livelihood zone. The second element to keep in mind is therefore to identify the different sub-areas with similar disaster risk profiles. Comparable exposure to the same hazards and similar drivers of vulnerability should be considered.

(3) ADMINISTRATIVE COMPARABILITY: Once a sub-area with similar livelihoods and disaster risk profile is identified, it is important to check comparability between the administrative units concerned (district, municipality, etc.). It is important to ensure that the study area belongs to the same administrative unit so that there is coherence of responses and inputs from the public figures that are key stakeholders in the process.

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11   The HEA considers a livelihood zone as an area within which people share broadly the same means of production and broadly the same patterns of trade/exchange. See the following link for more information on the HEA, https://fews.net/livelihoods

FIGURE 5: EXAMPLE OF LIVELIHOOD ZONING IN SENEGAL.
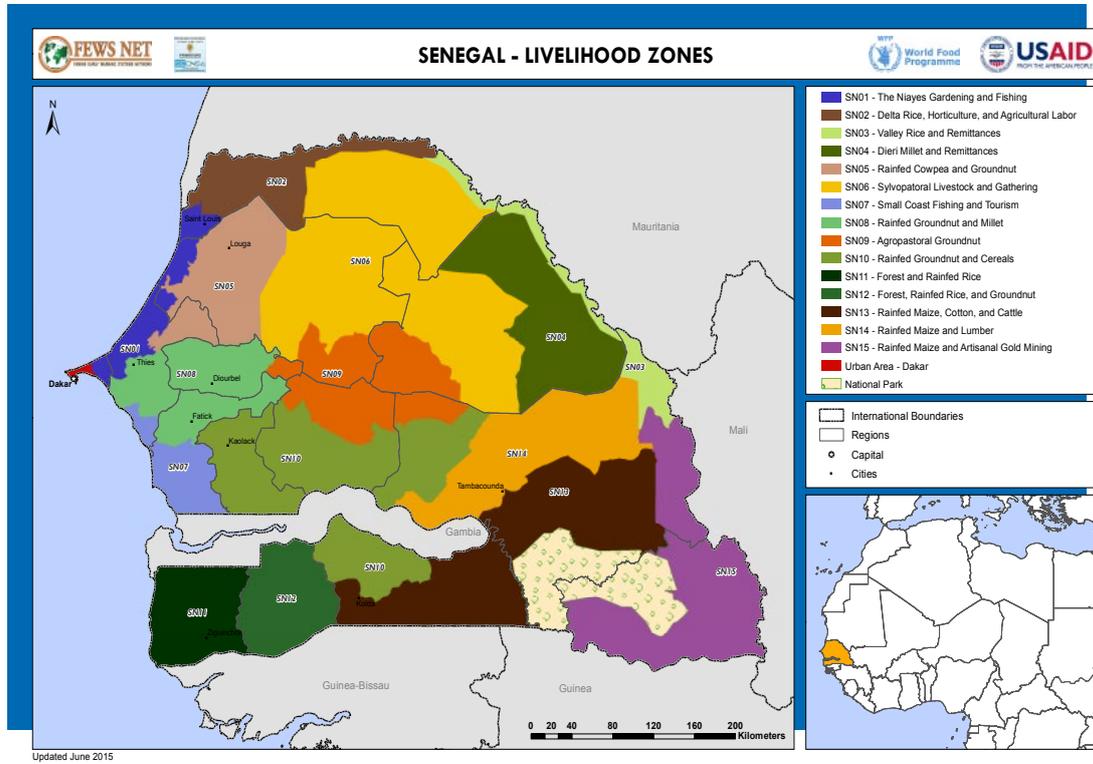
THE MAP IDENTIFIES ZONES IN SENEGAL ACCORDING TO THE MAIN PRODUCTION OR INCOME GENERATION ACTIVITIES. SOURCE: FEWS NET (2015)

ANALYSES OF SECONDARY DATA ....

The analysis of secondary data is an ongoing process that is done in parallel with the selection of the villages and the study area as detailed above. Table 4 below identifies key sources of information and what data to look for, such as the disaster risk maps and livelihood zones shown above.

The general aim of analysing secondary data is to start to build a foundational understanding of the study area and the population, which will orient the focus and the purpose of the PRAM, and inform its adaptation to the specific context and purpose of the study. It is also important to gain a general understanding of the wider context in which the study area finds itself. Incorporating provincial, national and regional levels in the analysis will support the conclusions of the final analysis and be important for validating findings and exploring intervention options.

TABLE 4: SOURCES OF KEY SECONDARY DATA		
DATA	**SOURCE**	**DATA INFORMATION NEEDS**
Hazard and Risk Maps	Provincial or national disaster management offices International internet-based resources such as https://www.gfdrr.org/en/disaster-risk-country-profiles	Selection of the specific study areas through identifying the most exposed and vulnerable communities. Creating the disaster history and carrying out the hazard prioritization.
Stunting, hospital admissions, Coping Strategy Index (CSI) score	Health Ministry or Health Centres or Nutrition Centres at local level; UNICEF	Data and information on nutrition collected over the longest period of time possible, to complement the seasonal calendar analysis and nutritional causal analysis.
Livelihood zones in the area of study (as defined by the HEA)	FEWS NET https://fews.net/livelihoods	Selection of the villages for the study based on common means of production and broadly the same patterns of trade/exchange
Average household income, literacy rates, child mortality rates, etc	Government registers; Development Plans at Community, Municipal or Regional levels; Assessment carried out by other organizations	Demographic and socio-economic data on the study population to make a preliminary assessment of vulnerability drivers.
Economic losses from previous disasters	Government registers Civil Protection / Civil Defense registers	Quantified economic losses from previous disasters and any information for the impact on livelihoods and food and nutrition security.

STEP 2
COMPOSE AND TRAIN THE TEAM

A well-trained and knowledgeable team is fundamental to the successful implementation of the PRAM and the reliability and usefulness of its outputs. The team should comprise a team leader that is familiar with the PRAM process and has experience carrying out social research, and technical staff that have a deep knowledge of the area in which the PRAM is to be carried out. The team should be balanced in terms of gender and representative of the population of the study area. Trust and ownership of the process and outputs are also important, so the team should include members that have a strong connection with the study area and know the local language and customs (although depending on the objective of the PRAM (e.g. project evaluation), maintaining impartiality might be important). Generally, it is key to rely on the participation of Action Against Hunger's own project staff as this allows for internal capacity building and a more detailed understanding of the context, which will be important for future projects.

Prior to the PRAM implementation, the team should have a solid understanding of the concept of resilience and the conceptual underpinnings of the PRAM, be familiarized with the PRAM process, and be trained in the data collection and analysis techniques presented in this guideline. This may require a significant investment of time and resources, but will be pivotal to the successful implementation of the tool. Preparing the team to facilitate the focus groups discussions is of particular importance, as they must be able to explain the concepts clearly and simply and, when asking the questions, allow time for the responses and not influence the participants decisions.

A hands on, participatory approach to the trainings is encouraged. As such, the training can be used to generate a first draft of the disaster history, seasonal calendar, and hazard prioritization, which is later validated by the expert groups (see phase 2). In Mali and Senegal, the training lasted about 2 days, and included a guided implementation of the tool with local experts and a village, as a type of 'learning by doing' approach.

In Mali, the team comprised 4 people: the head of project, the deputy head of projects and 2 enumerators/surveyors. In Senegal, the project team that was in charge of applying the PRAM was 1 head of project and 2 technicians. The nutrition supervisors (1 person per commune) provided crucial support for community mobilization in Mali, and they also participated in the organization and process of FGDs.

STEP 3 (PHASE 1)

STEP 3
PREPARE THE PRAM TOOL AND PLAN THE FIELD WORK

The activities, resources required, and timeline of the field work really depend on the scope of the assessment, and the number of villages or participants involved. It will also depend on whether the assessment builds on an existing presence of Action Against Hunger in the study area.

CONTACT WITH LOCAL AUTHORITIES AND OTHER STAKEHOLDERS

In cases where Action Against Hunger has not previously worked in the area, more time may be needed to identify appropriate entry points and establish trust through successive and repeated meetings and field visits prior to the PRAM application.

Once the study area and target villages are selected, the team should conduct meetings with leaders and other local actors to explain the objectives and the process of the PRAM, and to get their consent and their commitment. In these initial meetings, care should be taken to manage expectations about the process and possible future interventions. Dates, venues and the conditions of the group discussions should also be agreed. Along with these meetings and field visits, an initial investigation such as Community Profiling through semi-structured interviews and focus group discussions may be conducted to collect specific information on the characteristics of the community.

When meeting with the local actors, it is important to interact with people that represent the full diversity of the community. Ensure that those who are particularly vulnerable, such as minority groups, women, and people with disabilities are included. The people with whom you interact should be briefed on the content and the course of the PRAM as well as on the importance of their participation and their impartiality in providing answers.

PREPARE THE PRAM

With the primary objective of the study clearly defined, the study area selected, and secondary sources reviewed, the PRAM needs to be adapted to meet the needs of the study and the context of the study area. Some key considerations in this step are:

MULTI-HAZARD OR HAZARD-SPECIFIC STUDY: In the case that a hazard-specific analysis is to be carried out, it is recommended to include a maximum of 2-3 hazards. As the scoring is hazard-specific, a complete set of data has to be gathered for each hazard. Including more hazards would be time consuming and very complex. A multi-hazard approach, where questions are not specific to any particular hazard, gives a general indication of resilience and is cheaper and quicker

to implement. However, this approach is less useful in terms of understanding the differences between drivers of resilience for different hazards, as well as designing and evaluating projects that aim to increase resilience to a specific hazard.

UNIT OF OBSERVATION: The household, rather than the individual, or group, is the preferred unit of observation, as it allows for a detailed representative comparative analysis at the household level. However, this level of data, gathered using surveys, is resource intensive and will significantly increase the data capture and handling burden. More often than not, it will be judged to be more appropriate given the scope of the study to use groups as the unit of observation, and to use focus groups and multi-voting techniques to gather information for analysis at the village level. This allows for a similar analysis to the household survey, but with less detail.

RESILIENCE QUESTIONS: The focus group or survey questions and their related indicators will need to be revised based on the scope of the study and the information from the secondary data analysis. The questions should include references to the specific hazards being studied, and may need to be adapted to the specific priorities of the study population.

VOCABULARY AND LANGUAGE: All the materials that are to be used in the study – from the disaster history to the focus group questions – need to be adapted to the local context, using appropriate language and dialects. Making sure that all the terms are customized to the local culture. Language is really important for the success of the implementation of the tool.

FINAL LOGISTICS

When the methodology is finalised and the team is operational, the PRAM tool application can be planned. The PRAM is applied in two steps, (i) expert consultation and contextualisation, and (ii) primary data collection. Key considerations when planning the field work, which includes these two steps, are:

» What resources are necessary to implement the process?
» How will logistics be arranged?
» What budget is needed?
» How long will the processes last?
» Who will be our main respondents?
» What other organizations can be partnered with to share existing experience and information?
» Who may potentially want to collaborate on field assessments and follow-up planning?

PHASE 2 – CONDUCTING THE PRAM STUDY

There are two main elements to the application of the PRAM in the study area. The first is the contextualization process through local expert consultation, and the second is the data collection.

STEP 4	▶	STEP 5
PRAM CONTEX-TUALISATION THROUGH LOCAL EXPERT CONSULTATION		PRIMARY DATA COLLECTION
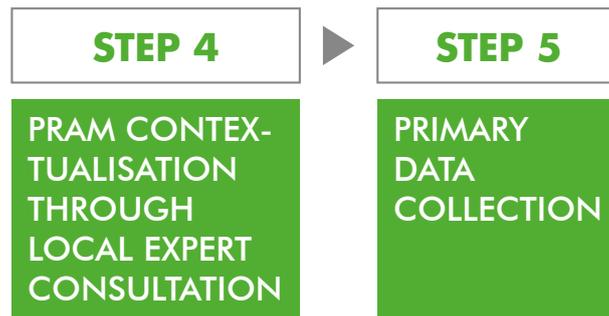
STEP 4
PRAM CONTEXTUALIZATION THROUGH LOCAL EXPERT CONSULTATION

In this step we build on the analysis of the secondary data collection to answer the question "resilience to what?", by confirming the hazards that are present in the geographical area of study and understanding their impact on the community. This step is also our opportunity to gather data related to seasonal and yearly trends in undernutrition in order to help answer the question "resilience for what?" Finally, we ask the group of experts to help answer the question "resilience through what?" by weighting the resilience dimensions according to their perceived importance in the study area.

The contextualization process is done in a workshop by a group of key local stakeholders. Further to the contextualization of the PRAM, this process is also considered an important part of the engagement process with the key actors within the study area and an opportunity to raise awareness around disaster resilience and promote buy-in to the process of the PRAM and any future interventions that might result from the study. The estimated timeframe for the whole workshop is two days, but it depends on the number of hazards identified for the study. A proposed structure for the workshop is presented in Annex 1.

SELECTING THE PARTICIPANTS: The participants of the workshop are referred to as local experts. These are key stakeholders within the study area, which will include representatives from local authorities, community leaders, any national and local NGOs that have a presence in the study area, academic institutions such as universities or research entities, and any grassroots organizations operating in the

study area. There should be between 8 and 12 participants, and the group should be representative of the population in the study area, including women, indigenous people and any other minority groups.

DISASTER HISTORY ....

In cases where this information is not available from secondary sources, is incomplete, or requires verification, the Disaster History exercise will be the first step of the PRAM contextualisation workshop.

The Disaster History exercise is a process of identifying significant disaster events that have happened in the community over a long period of time and outlining their impacts. Although the PRAM's primary focus will be on disasters or significant shocks that result from the impact of natural hazards on human and non-human elements, several additional topics can be chosen according to the focus of the assessment, such as health risks or environmental changes. The disaster history exercise helps provide a better understanding of the most significant disaster events that have left their mark on the community's development and evolution, and on the changes in their nature, intensity and behaviour. It helps reveal how disasters have affected people's resources over the years and evaluate their negative effects on their lives.

Suggested guiding questions for the facilitation of the exercise include:

» What disaster events or significant stresses have happened or are happening in the community?
» How did they or do they affect the community?
» Who are the people most affected?
» What were the main damage and losses?
» What was the survival strategy?

In order to gather this data, the field team will organise a group discussion around the selected topics that will start at the earliest date of memory. Table 5 shows a typical example of the output of the discussions on disaster history for the PRAM.

TABLE 5: DISASTER HISTORY EXAMPLE ADAPTED FROM THE PCVA PRACTITIONER'S HANDBOOK.[12]

1 Disaster History

| | Country: | Burkina Faso |
| | Livelihood zone | N/A |

Please identify significant disaster events from living memory.

Disaster	Year	Duration	Effects	Survival Strategy
Drought	1940		Migration of families; Famine	Consumption of wild game; consumption of wild leaves and roots (e.g. lily pods), sometimes toxic.
	1962		Death of several men	
	1984		Famine; Migration	Gold panning and small scale trade; Consumption of rice instead of millet as a staple food
	2004		Famine, poverty; Death of livestock	Consumption of immature corn; Consumption of seeds, leaves and wild roots, some of which are toxic; Sale of livestock and poultry
	2008		Failure of Millet crops found in the region; Famine, poverty	work on secondary crops; cash in hand labour, times of conflict
	2011		Migration; Deterioration of financial and material assets; Anxiety and distress; Famine	Sale of livestock and poultry to buy rice/millet; Travel to gold mine (especially young people); Migration to other villages
Floods	1998		Loss of animals through drowning	Sale of livestock and poultry
	2009		Loss of life through drowning; Granaries destroyed; cooking equipment and other valuable household items carried away	Donations of food (corn flour) and sleeping mats
	2010		Devastation of fields, which caused a famine	Evacuation of family members in the dugout; Assistance in the evacuation of goods; Information on water status is done by telephone
Extreme winds	1999		Destruction of some millet stocks and crops; Trees toppled; Death of poultry; Damage to roofs of houses; Famine and poverty	Sale of livestock and poultry; Consumption of wild leaves; Purchase of cereals subsidized by the State and its partners

12   Information of livelihood zone and duration of the hazard are not included in the example as these are recent modifications to the format specific to the PRAM methodology.

SEASONAL CALENDAR ....

Seasonal calendars are used to study changes in the community over a typical year. They are a useful tool for showing patterns between seasonal changes in weather and climate, and their impact on livelihoods and nutrition. In years where there has not been a significant shock, comparison of monthly nutrition data will provide an idea of a typical yearly cycle of nutrition status. For example, increased rainfall during the monsoon or wet season might correspond with increased incomes and improved nutrition in the population. In years when a significant shock has taken place, in combination with the disaster history, the seasonal calendar can help us to visualize nutrition status before the shock and the evolution of nutrition status in the following months and years. As mentioned in the introduction, the idea is not to conduct statistical correlation analysis of resilience variables and undernutrition, but to observe and analyse shock/stress history and undernutrition data jointly. The objective is to develop a sense of the impact of past shocks on undernutrition, and to develop a hypothesis on the relative contribution of shocks to overall undernutrition. Figure 6 provides an example of a detailed analysis that can be undertaken for specific events to show the disaster impact on specific nutrition outcomes.

FIGURE 6: THE EFFECTS ON NUTRITION OUTCOMES OF THE 2011 DROUGHT IN WEST POKOT COUNTY – KENYA
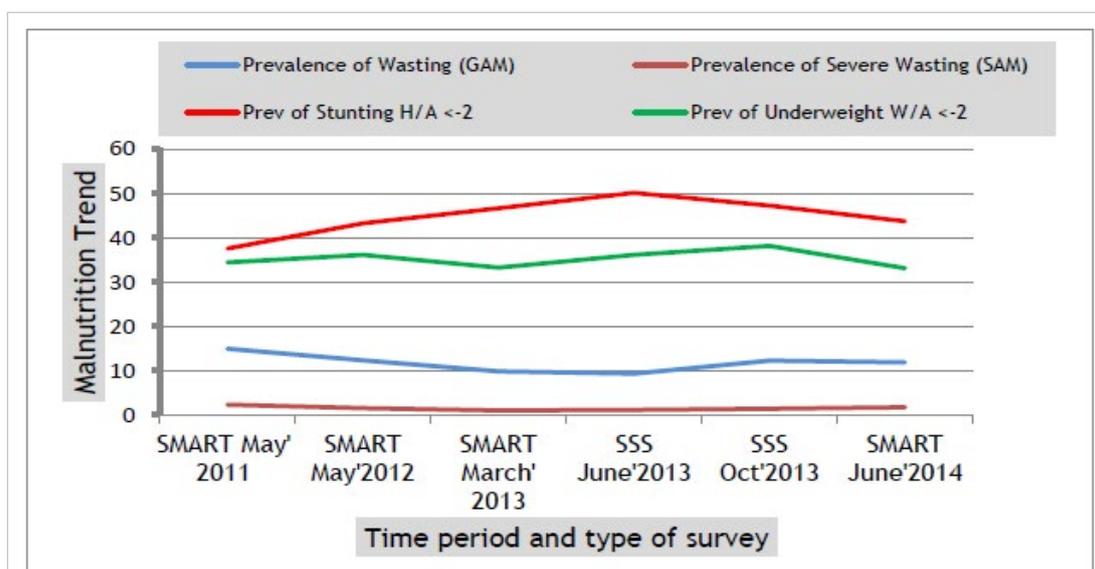
» Stunting: post-shock, the stunting rate increased from 38% to 51% over a 2-year period. This represents a 34% stunting increase post-shock, which is consistent with studies mentioning a 40% to 70% increased likelihood of stunting for children born in drought year (2007/8 UN human development report). Rates have gradually decreased since.

» Acute malnutrition: GAM rate measured at 15% during the drought has gradually decreased to below 10% in the two years following the crisis. This might be due to the increased attention and effort from humanitarian stakeholders to improve detection and treatment of acute malnutrition during the emergency period. Rates have gradually increased since.

SOURCE: ACTION AGAINST HUNGER KENYA

The first step in putting together the seasonal calendar is identifying the main seasons in the study area (short and long rainy periods, dry periods, colder and hotter periods, etc.), followed by the main characteristics of the seasons and any potential threats (flooding through increased rainfall, wind damage from storms etc.). Next, we want to know if there are periods where food shortages are common, if people have to reduce food and water intake, or diet is constrained to one or two staple foods. Then it is important to identify common illnesses such as malaria, dengue and cholera, and what time of year these are most prevalent. Are there increased hospital admissions at any point in the year? Understanding the sources of income, main crops and/or livestock, and planting and harvesting seasons provides important information that will paint a rich picture of the seasonal changes that influence nutrition security. Festivals and cultural events can also be included. Figure 7 shows a simple example from the PCVA field manual of what a seasonal calendar might look like.

FIGURE 7: EXAMPLE SEASONAL CALENDAR FROM ETHIOPIA

PRIORITISING DISASTER RISK

This step in the process builds on the previous steps by taking the hazards identified in the disaster history and prioritizing them according to participants' perceptions of their frequency and severity of impact. The aim is to identify the hazards that have the most serious impact on people's livelihoods and nutrition security in order to prioritise which hazards should be the subject of the PRAM Study. Table 6 shows an example of the hazard scoring matrix that can be used in this step.

The hazards from the disaster history exercise are used, and the participants are asked which hazards they perceive to be the most frequent and have the greatest impact. For each hazard identified, the local experts, based on data available and their own expert judgement, should discuss and agree on the level of severity and the level of likelihood of the hazard. The severity is to be determined on a 5-point scale, from negligible to catastrophic. The likelihood is to be determined on a 5-point scale, from improbable (over a 100-year event) to frequent (at least once a year). In order to facilitate the discussion around impact, it is advised to identify certain assets such as property, facilities, fields, cattle, water, road, schools and food reserves to contextualise the impact.

NOTE: In addition to the simple prioritization of the hazards, it is also important to try and understand how different hazards relate to each other, and the geographic scales at which they occur.

TABLE 6: EXAMPLE HAZARD SCORING MATRIX FROM DABIA COMMUNE, DEPARTMENT OF MATAM, SENEGAL

SEVERITY OF IMPACT					
Likelihood	Negligible	Low	Moderate	Significant	Catastrophic
Improbable					Unseasonal rainfall
Remote					High winds
Occasional			Flooding	Cholera Epidemic	
Probable			Precipitation deficit		Drought
Frequent				Seed-eating birds	

WEIGHTING THE CAPITALS

The weighting of the resilience capitals will provide further contextualization of the PRAM by understanding what these stakeholders consider to be the most important factors that contribute to their capacity to anticipate, absorb and adapt to the identified hazards, according to the socio-political, economic and environmental context of the study area.

The process of weighting the capitals is done using the **Analytical Hierarchy Process (AHP)**. The AHP is a methodological approach to decision-making that can be applied to determine the relative importance among a collection of alternatives, using paired comparisons. This method has been shown to be effective when

assigning weights for indicators of disaster risks and vulnerability indices, or when ranking risk factors.[13] In the case of the PRAM, it is used to assign weights to the 6 livelihood capitals, by systematically comparing the importance of pairs of capitals. The relative importance of one capital to another in terms of the community's capacity to cope with the hazard in question is determined based on their judgement as local experts who have a profound knowledge of the area and the context. A detailed explanation on how to conduct the AHP weighting exercise is provided in **Annex 2.**

The results of the weighting process for each hazard should be entered into the Data Analysis Matrix. The weighting will automatically appear as a percentage in the far-right hand column on the sheet. Figure 8 below shows an example of the desired outputs for weighting the capitals of the AHP methodology. Once the values are entered into the relevant cells, the percentage weights are calculated automatically in the Data Analysis Matrix available online.

FIGURE 8: EXAMPLE OF THE OUTPUT FROM THE ANALYTICAL HIERARCHY METHOD FOR WEIGHTING CAPITALS FOR DROUGHT RESILIENCE IN SENEGAL

Using the analytical hierarchy process, the experts valued the importance of the 6 capitals for their ability to anticipate, absorb and adapt to droughts.

		Economic	Natural	Physical	Social	Human	DRM	WEIGHT
	Economic		4,00	4,00	1,00	0,33	0,25	17,8%
HAZARD	Natural			4,00	0,33	0,25	0,33	9,6%
Drought	Physical				0,25	0,25	0,25	2,3%
	Social					1,00	2,00	20,5%
	Human						3,00	27,9%
	DRM							22,0%

USING THE WEIGHTING SCORES: The weights assigned to the capitals are a reflection of the importance given to them by the experts for their resilience to a specific hazard. These weights will later be assigned to the respective resilience dimensions that make up each capital, and will influence the final analysis. In addition to the application of the weighting for the final analysis, the weighting process can be used to adjust the data collection methodology; principally, the questions of the survey/focus group. For example, if low importance has been given to the Physical Capital, it will be worth considering whether all of the questions proposed in the Data Structure Matrix are necessary for inclusion in the survey or focus groups. It may be more practical to only keep a select few questions, and thus more time and resources can be spent on gathering and analysing data on the capitals that have been identified as more important.

13   Orencio & Fujii (2013)

STEP 5
PRIMARY DATA COLLECTION

TOOL FOR DATA COLLECTION
PRAM SCORECARD ....

With the contextualization complete, it is now time to collect the primary data. The data collection methods used will depend on the scope of the study identified in the planning phase.

FOCUS GROUP ....

Scoring in groups using multi-voting techniques at the village level will likely be the most commonly used data collection method in the PRAM application.

PARTICIPANTS: The focus groups should be made up of between 6 and 12 participants who, as far as possible, represent the population of the village. Care should be taken in contacting the participants and local customs should be observed (e.g. first reaching out to the local village leader). Be sure to give sufficient notice in advance so that participants can take the time to be part of the group.

ASKING THE QUESTIONS: Before starting the scoring process, clearly state your intentions to the participants and make it clear why they are being involved in the study. Each resilience dimension is discussed in detail before the participants vote on a final score. This preliminary discussion is the opportunity for facilitators to record the qualitative data that compliments the final score. Clear instructions should be given on **how to answer the questions**. All questions are closed, and follow the same structure Likert Scale structure, explained in section two "The PRAM methodology". It will be important to explain the difference between the seven response options; for example, what the difference between "slightly agree" and "agree" is.

SCORING THE DIMENSIONS: Experience from pilots of the PRAM implementation has shown that voting using stones, marbles or drawing pins has been an effective way of carrying out the scoring in village groups. Each person votes by placing the object next to their preferred answer, which can be presented using drawing or images. The answer with the most votes is recorded. This method has the added advantage of overcoming issues related to literacy. In order to generate more reliable and representative results, structured group decision-making techniques such as multi-voting should be used (see Box 2 for details). The facilitator can use the PRAM Scorecard to record the data from the focus groups. The results from surveys can be directly entered into page 5 of the Data Analysis Matrix.

STEP 5 (PHASE 2)

BOX 2
REACHING CONSENSUS USING THE MULTI-VOTING TECHNIQUE

The multi-voting technique is a structured systematic process for reaching consensus among a group, and is often applied in situations where a choice needs to be made from a range of alternatives. Voting on a list of alternatives takes place in two or more rounds. Participants anonymously rank the alternatives according to their perceived importance, and after each round the facilitator provides a summary of the previous round and a discussion can take place within the group, and the process is then repeated. The process is stopped either when consensus is reached, or when a pre-determined number of rounds has been completed. The multi-voting technique is considered to be particularly useful in situations where some group members are much more vocal than others, or there is concern about some members not participating.

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CONDUCTING A GROUP PRAM SCORING EXERCISE IN A VILLAGE IN PODOR, SENEGAL

A TIP FROM THE FIELD: There may be cases in which, despite your best efforts to create a participatory and inclusive discussion that yields results that are representative of the whole community, the voices of specific minority groups are not being heard. For example, in a group where 8 out of 10 participants are arable farmers, and 2 are primarily livestock herders, the important differences of the minority group may not be adequately reflected in the results. In this case, a separate sub-group should be formed, and the exercise carried out in parallel.

TESTING: A pre-test of the questions is advised. In the pre-test, the prepared question guide is taken and tried out to see whether it is understood in the way it is intended and to see how people will respond to the questions. Pre-testing can also be used to support the training of those who will be involved in conducting the focus groups, providing field practice, and helping to develop confidence.

RECORDING THE QUALITATIVE DATA: The simplest method for recording the qualitative data is for the facilitator to take notes, getting as much detail as possible. Notes should be written in shorthand, making a summary of discussions and then written up in more detail immediately after the session. Care should be taken not to include your own judgements or interpretation of comments; write down only what you hear. If possible, the session could be recorded using a digital device so that the conversation can be listened to again if there is confusion over the meaning of a comment made during the session.

In addition to all the relevant questions presented in the Data Structure Matrix, demographic data should be gathered in order to understand the characteristics of the respondents' households and support further comparative analysis if required later in the study. As a minimum, data should be collected on:

- » Gender
- » Age
- » Race/Ethnicity
- » Marital status
- » Primary source of income
- » Yearly household income

HOUSEHOLD SURVEY

In cases where time and resources permit, and the scope of the study requires such a level of data, a household survey can be used to collect the primary data.

SELECTING THE PARTICIPANTS: Although the survey is conducted at the household level, one individual should be selected per household to complete the survey. The individual can be selected using random selection between the main income generating partnership within the household. This random selection should ensure that there is roughly equal male and female representation in the survey.

Only respondents 18 years and older should be considered. When conducting a survey, sampling will be an important consideration. Box 3 below provides some key considerations for sampling when conducting a survey.

CONDUCTING THE SURVEY: The most practical way of carrying out the survey will be the use of open source software such as KoBoToolbox. KoBoToolbox is a suite of tools for field data collection using mobile devices specifically designed for use in challenging environments. If the implementation team has experience using this software, it should be considered as an option for carrying out the survey. More details can be found here: https://www.kobotoolbox.org/

As with the focus groups, before undertaking the full questionnaire, it is a good idea to **test it on a small group** (5-10 people) to get their feedback. This will help improve not only the survey itself, but also the surveyor's ability to explain the questions and record the data. The same guidance for conducting the household surveys, in terms of clearly stating your intentions and explaining how to answer the questions, also applies to the survey.

QUALITATIVE DATA: If a survey is conducted for quantitative data collection, qualitative data will need to be collected separately using either focus group discussions (FGDs) or Key Informant Interviews (KIIs). It is recommended that the qualitative data is collected after conducting the survey and doing the first analysis, so that initial findings can be used to guide the development of the FGD or KII line of questioning. In FGDs and KIIs, questions are asked in a very different way from survey questions. Whereas surveys use closed questions and fixed choices to gain concise and direct information, qualitative methods are more flexible and should encourage people to reply at length. The primary aim is to try to build on the quantitative data, allowing respondents to answer in any way they want, using "open-ended" questions. These questions need to be easily understood by the respondents. When forming these questions, consider the following:

» use simple language,
» be sure the meaning of the question is clear,
» keep questions short,
» do not have several parts to each question.

BOX 3
SAMPLING[14]

When conducting a survey, sampling is the process of selecting the individuals, households or groups from a wider population of interest, studying them in greater detail, and then drawing conclusions about the larger population based on this detailed study. There are two main factors to consider in the sampling process: the size of the sample; and the method of selecting the individuals, households or groups that will make up the sample. Larger samples are more likely to be representative of the wider population and are therefore more likely to capture changes that would occur in the whole population. Additionally, larger samples increase the precision of estimates of change and the statistical power of the evaluation. The means by which the individuals, households and groups of the target population are selected for inclusion in the survey or focus group discussions are also important in order to ensure that the participants represent the entire population, and not just specific groups.

PHASE 3 – CONCLUDING THE PRAM STUDY

Data analysis and dissemination of results make up the final steps in the PRAM process.

STEP 6	▶	STEP 7
DATA ANALYSIS		DISSEMINATION OF RESULTS
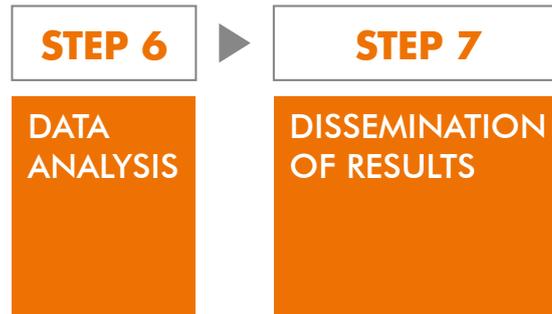
STEP 6
DATA ANALYSIS

TOOL FOR DATA ANALYSIS
DATA ANALYSIS MATRIX ....

If not already done, the data collected from the disaster history, seasonal calendar and hazard prioritization should be entered into the corresponding sheets of the **Data Analysis Matrix**. Having this data all in one place will facilitate the holistic analysis of the complete data set. The tool also allows for easy printing of each sheet for inclusion in reports or using in the validation step.

The scores for each resilience dimension from either the focus groups or the surveys are entered on **Sheet 5 - Resilience Dimension Scores** of the Data Analysis Matrix. Here, an average score is taken for each dimension from the complete data set. Sheet 5 has two parts: 5A is where the baseline data is entered; and 5B is where the end-line data is entered. The data analysis matrix allows us to automatically generate visualizations of the data to support our analysis.

ANALYSIS PART 1

THE BASELINE ....

SHEET 6 - VISUALIZATION OF RESULTS: Sheet 6 of the data analysis matrix provides us with a summary of the weighted scores presented by capital and by capacity for each of the hazards studied. The easily printable pages provide a snapshot of the results and gives us the opportunity to visualize what resilience looks like in the study area.

The data is presented in two ways. The first page of results shown in Figure 9 below provides a summary of the aggregated resilience dimension scores presented by capital and by capacity for each of the hazards studied. Both the baseline and end-line results are automatically generated when the corresponding data are entered in the previous page.

FIGURE 9: PAGE 1 OF RESULTS – BASELINE RESILIENCE DIMENSION SCORES AGGREGATED BY CAPITALS AND CAPACITIES.
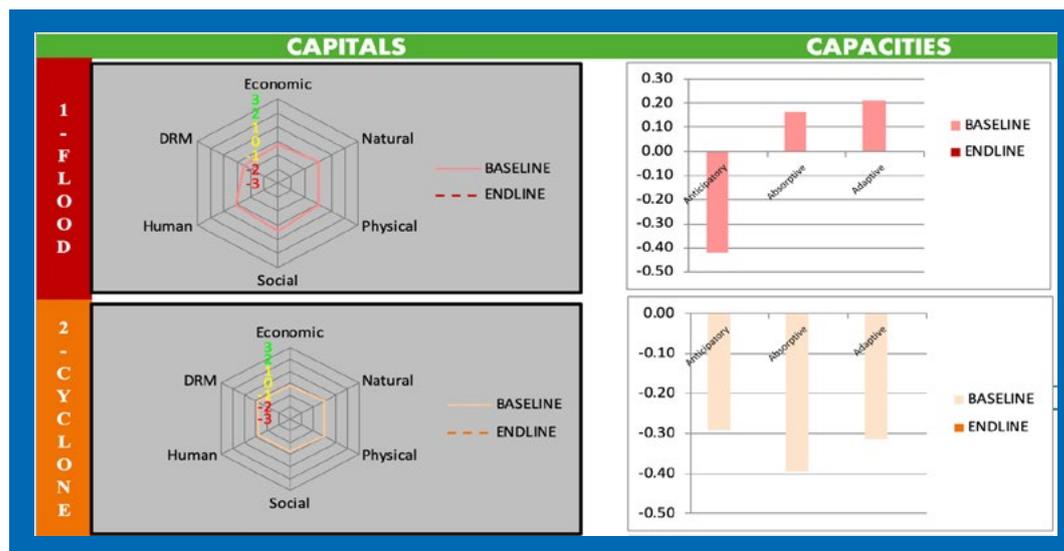
TIPS FOR ANALYSIS: This first page provides a visual summary of the scores, and serves as the starting point for identifying the capitals and capacities which are contributing to resilience, and those in which higher vulnerability is present. As with the Likert Scale, a negative number represents vulnerability and a positive number represents resilience. We can see in the hypothetical example in figure 9, for the flood hazard, the DRM capital is the weakest performer, which corresponds with a negative anticipatory capacity. This suggests that low scores in resilience dimensions that are related to DRM and/or anticipatory capacity, such as early warning, are contributing to increased vulnerability. Interventions to strengthen early warning will thus likely be the most effective in building overall resilience to floods, and will be key to the design of future interventions to improve resilience.

In addition to analysing each hazard studied on an individual basis, if the PRAM has been applied for more than one hazard in the study area (e.g. flood and cyclone), it is also important at this stage to analyse differences and similarities between hazards, in order to get a more detailed idea of multi-hazard resilience in the study area. Planning interventions must consider any differences and similarities so that the most effective interventions can be planned and so that these interventions do not lead to maladaptation from one hazard or another.

NOTE: The way in which the dimension scores are calculated, using the weights from the capitals, should be taken into account in the analysis. The weight score for each capital is applied directly to the corresponding dimensions within that capital, augmenting the dimension score according to the importance given to it by the group of experts in the contextualization workshop. A higher weighting score means a higher multiplier effect. As a result, depending on the weighting, a negative dimension score of -1 may be amended to -1.5 showing increased vulnerability and so placing greater importance on that dimension as a possible area of intervention. However, a positive score of 1 may be increased to 1.5. This may show an exaggerated increase towards resilience, because of the positive multiplier effect of the weighting, but may not reflect the true situation on the ground.

TAKING A CLOSER LOOK AT THE DATA: The second step of the baseline analysis takes a more detailed look at the dimensions, organized by resilience capacity for each of the hazards studied. Continuing with the example above, by taking a closer look at the data presented in Figure 10 we can see that a lack of adequate early warning is indeed contributing to reduced resilience, along with deficits in disaster prevention and mitigation, and disaster preparedness and planning. We can also see that significant barriers towards adaptation are related to the economic capital with little use of climate information in livelihood decision making, and improvement needed in terms of diversification and income stability.

QUALITATIVE DATA ANALYSIS: Analysis of qualitative data can be a laborious task that requires experience and specialist skills. As the PRAM does not pretend to follow strict scientific process for the reasons described in the introduction, the insights gained from the KII's and Focus Group Discussions can be used simply to gain general further knowledge about what the drivers of resilience and vulnerability are in the community.

FIGURE 10: RESILIENCE DIMENSIONS PRESENTED ACCORDING TO THE 3A'S FRAMEWORK
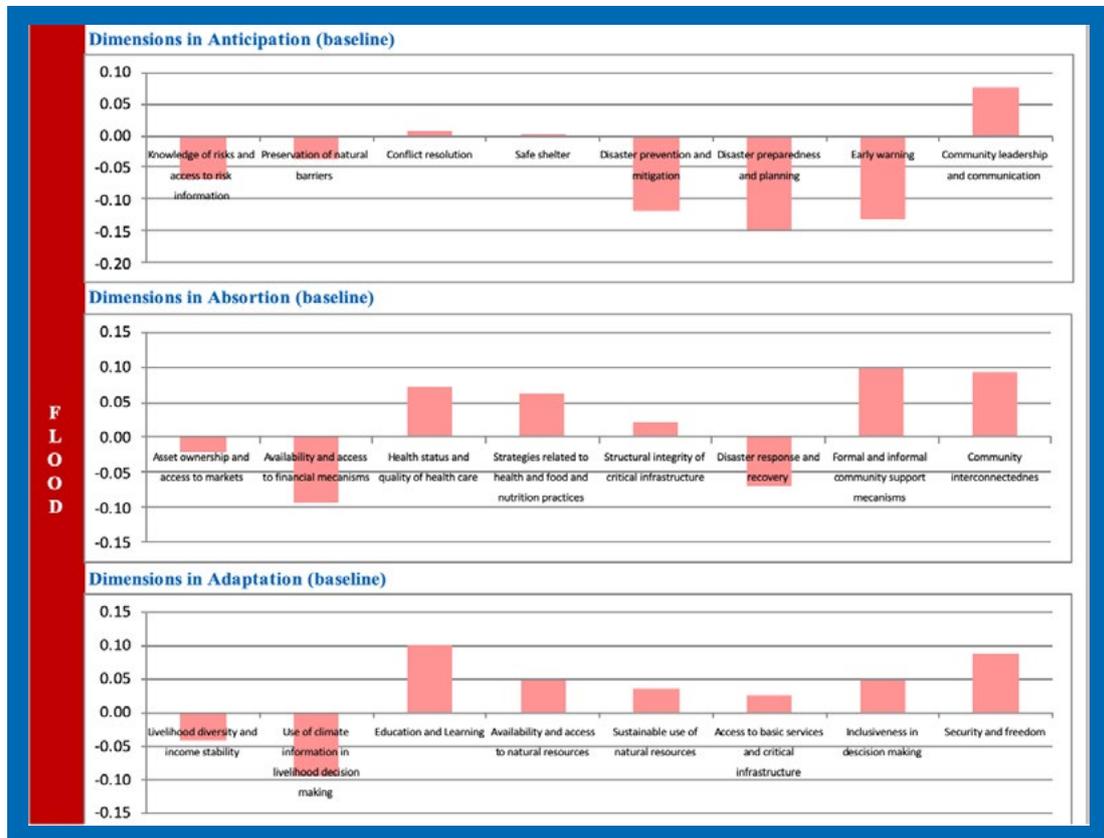
ANALYSIS PART 2
BASELINE AND END-LINE COMPARISON ....

The Data Analysis Matrix allows for an easy comparison of baseline and end-line data. Once the end-line data is entered in Sheet 5B, we can return to the data visualization page and compare the two data sets. In the hypothetical example shown in figure 11 below, we can see that there has been a notable improvement in the DRM capital and in anticipatory capacity.

FIGURE 11: BASELINE AND END-LINE COMPARISON OF RESILIENCE DIMENSION SCORES AGGREGATED BY CAPITALS AND CAPACITIES
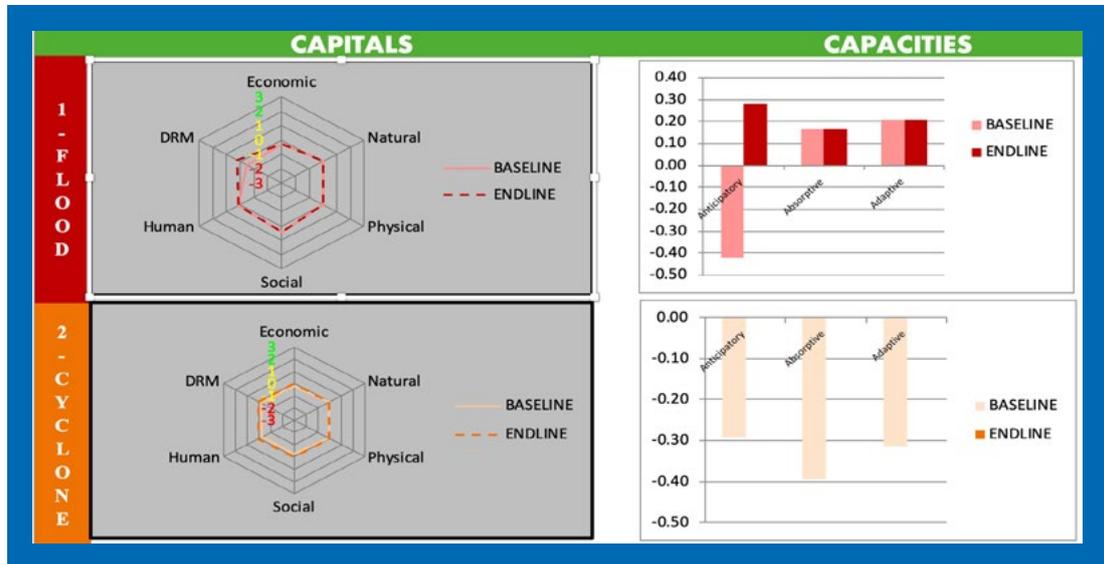
A closer look at the disaggregated data by dimension and capacity for both the baseline and the end-line figure 12 reveals that there has been a notable improvement in the score for early warning, disaster prevention, and preparedness compared to the baseline. This analysis provides sufficient evidence of change that can provide the basis for exploring attribution or contribution of the project or programme to improving resilience outcomes within the population.

FIGURE 12: BASELINE AND END-LINE COMPARISON OF DATA ACCORDING TO THE 3A'S FRAMEWORK
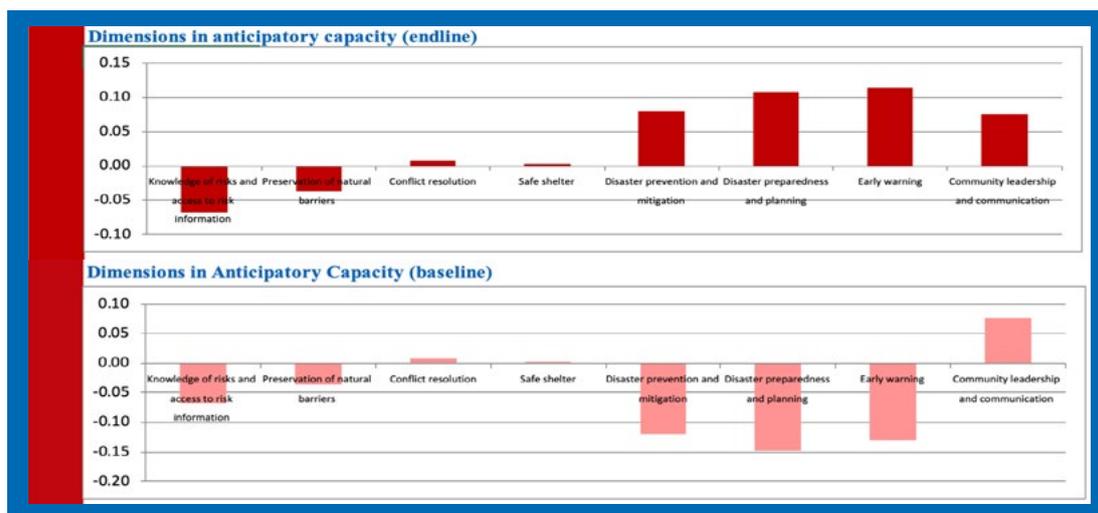
NOTE: If the PRAM has been applied for more than one hazard in the study area (e.g. flood and drought), it is also important at this stage to analyse differences in changes between hazards. We must be aware of any interventions that may have been implemented that may have increased resilience to one hazard, but could have also increased vulnerability to another. For example, we may find that new flood defences have improved anticipatory capacity and DRM capital for floods, but that this has reduced absorptive capacity and natural capital for droughts. A critical analysis of the results is therefore crucial to avoiding the promotion of maladaptive actions. This is where the **qualitative data** plays a crucial part in the analysis, as we can assess whether or not the quantitative scores are reflecting the realities on the ground.

COMPARING VILLAGES: The data can also be used to make comparisons between groups of villages from the same livelihood zone or different livelihood zones that have similar disaster risk profiles, or between groups of villages that share a livelihood zone and risk profile, but are in different administrative areas. This comparison can be used to get an indication of how the context is contributing to resilience.

We should also avoid making concrete statements about improvements or reductions in resilience based on the PRAM outputs, and specifically drawing conclusions about what works and what doesn't in terms of building resilience. PRAM serves as a tool for developing understanding about the drivers of resilience and supporting project design and monitoring, but should be part of an on-going and open analysis of resilience in a certain area.

The data analysis matrix includes three further main pages that are referred to as annexes. The data included in these annexes are not considered a requirement for the level of analysis expected from the PRAM study. However, they are made available for those that wish to explore the dimension scores in greater depth. A final aggregated resilience score calculation for each hazard is also included in the excel annex and explained in Annex 3 of this guide.

USING THE PRAM OUTPUTS FOR RESULTS BASED REPORTING ....

In order to hold implementing agencies accountable for the use of financial support for disaster prevention and resilience interventions, international development financing entities often have pre-defined indicators which are used to monitor and evaluate the performance of their financing initiatives. As such, it is often required to report against these indicators through results-based reporting using logical frameworks. Using the example of a Key Performance Indicator (KPI) used by the UK Government for reporting against their international climate financing initiatives, we can see how the PRAM is a useful tool to support results-based reporting.

KPI 4 *"Number of people whose resilience has been improved as a result of the project"* is an example of the type of indicator that is often included in logical frameworks at the project's design, and will be reported on during the project's life cycle. The PRAM methodology gives us numerical values for resilience according to the 3A's framework and the 6 livelihoods capitals, as well as disaggregated scores for each resilience dimension. It also allows us to measure the number of people that are directly and indirectly benefitting from an intervention, as the participants selected for the focus groups or surveys are a sample that represents the population within the intervention area or livelihood zone. This population data can be found in government records.

After conducting a baseline and end-line round of data collection, we are able to observe changes in resilience in a given population within a specific livelihood zone, via an increase or decrease in our capacity or capital values and resilience dimension scores. Therefore, providing that there is a net increase in these values, we can report the number of people whose resilience has been improved. It is recommended that the information on number of people is always disaggregated by sex. We must however keep in mind that, unless a large enough sample has been applied to make a statistically significant analysis of the data that is representative of the population, the conclusions related to changes in the resilience value will be theoretical, and based on assumptions and the interpretations of the team who applied the PRAM and analysed the results.

NOTE: If we want to state whether or not this improvement in resilience is *as a result of the project*, we will have to use the evaluation techniques described in step 1. The process described above is simply how we can observe a change in resilience in a given population. Any observed change in numerical values should always be put in context with the qualitative data to get a richer picture about what changes have occurred and how these are impacting the participant population.

USING THE PRAM TOOL TO INFORM THE DESIGN OF LOGICAL FRAMEWORKS:
When the PRAM has been carried out with the purpose of informing the design of a programme or project, the results will highlight specific strengths and weaknesses in terms of resilience in the study population, hence pointing towards the need for improvement, and the identification, design and prioritization of

relevant strategies and targeted activities to be developed and implemented.

The framework of the PRAM tool lends itself to forming a narrative for a pathway to changes in resilience and, ultimately, improved nutrition security outcomes. Starting with the identification of the desired outcome, we can work backwards to create a pathway for change that can be used in the design of project management tools, such as Theories of Change and Logical Frameworks. The discussion below provides an example of how a pathway to change may be identified using the PRAM. (Note, the terminology regarding outcomes and results often varies from one agency to another, and so different terminology such as objective, goal, vision may also be used).

OUTCOME	RESULT	INTERMEDIATE RESULT	OUTPUT	ACTIVITY
IMPROVED FOOD AND NUTRITION SECURITY OF 20,000 PEOPLE IN PROVINCE X	IMPROVED RESILIENCE OF HOUSEHOLDS IN 100 VILLAGES WITH HIGH DISASTER RISK IN PROVINCE X	IMPROVED ANTICIPATORY CAPACITY / IMPROVED DRM CAPITAL OF HOUSE-HOLDS IN 100 VILLAGES IN PROVINCE X	100 VILLAGE LEVEL DISASTER PREPAREDNESS PLANS VALIDATED BY EACH VILLAGE	DEVELOPMENT OF VILLAGE LEVEL DISASTER PREPAREDNESS PLANS

OUTCOME: The outcome in Action Against Hunger interventions will most likely be "improved food and nutrition security". This is the long-term impact of the activities in the target population.

RESULT: The result of the resilience building interventions will be related to the improved resilience of the beneficiary population.

INTERMEDIATE RESULT: This optional level of results strengthens the narrative by breaking down resilience either by capacity or capital. The intermediate result will be directly related to the capacity or capital that has been prioritized as the focus area of the intervention, by returning a low score in the PRAM study. In the example above, the Capital is DRM and the Capacity is Anticipatory.

OUTPUT: These are the direct products of the activities and are usually expressed in terms of numerical values.

ACTIVITY: The design of the activities will be directly informed by the dimensions of resilience under the Capacity and Capital identified and prioritized as an area that needs strengthening from the PRAM study. For example, if DRM Capital and Anticipatory Capacity have been identified as areas of weakness, and we can see that early warning and disaster preparedness are the dimensions that have the lowest scores, then possible activities for the intervention would be related to installing early warning communication systems and developing disaster preparedness plans.

Once the pathway towards change has been identified, the usual process of forming indicators for measurement and identifying risks and assumptions will be applied.

STEP 7 (PHASE 3)

STEP 7
DISSEMINATION OF RESULTS

The final step in the PRAM process is disseminating the results to the relevant stakeholders. The main goal of this step is to use the information and knowledge that the application of the PRAM tool has produced, by effectively communicating it to key actors. The strategy for the dissemination of the PRAM study findings should be formulated by answering two key questions: firstly, who are you reporting to? And, secondly, what are their information needs? The method and presentation of the PRAM study findings will depend on the answers to these two questions.

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REPORTING FINDINGS TO THE PARTICIPATING POPULATION ....

The main target audience of the dissemination of the PRAM results will be the villagers themselves, and the group of experts from the contextualisation workshop. The information needs of these two different groups may differ slightly, but in both cases, they will be closely linked to the objectives of the PRAM study that were identified in the preparation phase. With this in mind, three general types of information needs can be identified for the PRAM tool:[15]

INFORMATION FOR ACTION: By breaking down resilience into its component parts and measuring them separately, it is possible to use the PRAM tool to identify specific strengths and weaknesses in terms of what is contributing to resilience in a household or village, and therefore identify specific actions that can be taken to improve resilience status. Effective communication of the results of the PRAM to the participants could empower them to take targeted actions to reduce vulnerability and increase resilience. This applies to village leaders and local authorities, but also individual households themselves.

INFORMATION FOR UNDERSTANDING: Depending on the stage at which the PRAM has been applied in the project cycle, the results can be used to explain the rationale for certain project activities that Action Against Hunger is implementing in the area. The outputs of the PRAM could also be used to demonstrate short-term impacts of an intervention and what has been learned from implementing certain activities, so that more villages and households in the livelihood zone can take similar actions.

INFORMATION FOR AWARENESS RAISING: The participatory nature of the PRAM engages the community and as such provides an opportunity to raise awareness about the potential impact that shocks and stresses can have on food and nutrition security, and the importance of taking proactive measures to increase resilience. Local leaders and authorities could also use this information to highlight specific issues that are driving vulnerability and generate national government support for specific interventions that are urgently needed to improve resilience in the study area.

METHODS OF PRESENTATION: When disseminating information to the participating population, careful consideration must be given to how the information is going to be communicated to them. The message needs to be clear and concise, and understandable to all stakeholders in areas that may have low literacy rates. With the groups of experts, a simple presentation of the results may be sufficient as they have already received training on resilience in the contextualization workshop. In some cases, when disseminating the results to the wider population, it might be necessary to be more creative with getting the message across, such as using performances or role-play.

15   Myers and Barnes (2004)

SECTION 4
· · · · · · · · ·
ANNEXES

ANNEX 1

TEMPLATE FOR CONTEXTUALIZATION WORKSHOP

Total No. participants present _____,
No. Male participants _____, No. Woman Participants_____

Activity	Time needed
Official welcome and introduction - Welcome and introduction of participants - Presentation of the objectives of the workshop	30 min
Understanding resilience concepts and measurement - What is disaster risk? - What is resilience? - Why measure resilience?	45 – 60 min
Break	15 – 20 min
Presentation of the PRAM tool - What are its main uses? - Overview of the methodology and key concepts - Overview of the key steps	45 – 60 min
Introduction to the study area - Presentation of the study area (livelihood zones, administrative area etc) - Presentation and validation of the seasonal calendar	45 – 60 min
Lunch Break	60 min
Group session to generate disaster history	30 – 45 min
Group session for hazard ranking (or validation if the hazard identification and ranking has already been done in the secondary data analysis).	30 – 45 min
Presentation of the resilience capitals, - Explanation of what each capital represents - Presentation of the resilience dimensions for each capital - Review and correct the terminology used in the matrices if needed.	45 - 60 min
Break	15 min
Weighting of the Resilience Capitals for Hazard 1	30 - 45 min
Weighting of the Resilience Capitals for Hazard 2	30 – 45 min
Weighting of the Resilience Capitals for Hazard 3	30 – 45 min
Validation of results	15 min
Evaluation, feedback and agreement on next steps	30 min
Closing remarks	10 – 15 min

ANNEX 2

WEIGHTING RESILIENCE DIMENSIONS USING THE ANALYTICAL HIERARCHY PROCESS

WHAT IS THE ANALYTICAL HIERARCHY PROCESS (AHP)?

The AHP is a methodological approach to decision-making that can be applied to determine the relative importance among a collection of alternatives, using paired comparisons. This method has been shown to be effective when assigning weights for indicators of disaster risks and vulnerability indices or when ranking risk factors. In the case of the PRAM, it is used to assign weights to the 6 livelihood capitals, by systematically comparing the importance of pairs of capitals. The relative importance of one capital to another in terms of the community's capacity to cope with the hazard in question, is determined based on their judgement as local experts who have a profound knowledge of the area and the context.

HOW TO CARRY OUT THE WEIGHTING PROCESS USING THE AHP METHODOLOGY?

The facilitator will ask participants to discuss the importance of one capital compared to another according the table below. It is important to give detailed context to what assets are considered to be part of each capital and how these might reflect a community's or household's ability to anticipate, absorb, and cope with the hazard in question.

How the final question is framed is important to generating a consistent and accurate result across all capitals. The question posed to the group should be structured as follows; *"given the current situation, how important is (x) capital compared to (z) capital to your capacity to resist, absorb, cope and adapt to the impacts of [insert hazard]"*

	Economic	Natural	Physical	Social	Human	DRM	WEIGHT
Economic							%
Natural							%
Physical							%
Social							%
Human							%
DRM							%

Based on the group discussion, a final value is agreed using the adjacent table. Depending on the time available, the Multi-Voting technique can be used to reach consensus among the group. Once all capitals have been compared against each other, the values for each cell can be inputted into the table on page 3 of the Data Analysis Matrix, and the percentages are automatically generated. Repeat the process for each of the hazards studied.

Equal Importance	1
Moderate Importance	
If A is slightly greater than Z	2
If A is slightly less than Z	0.5
Strong Importance	
If A is much greater than Z	3
If A is much less than Z	0.33
Very strong importance	
If A is very much greater than Z	4
If A is very much less than Z	0.25

ANNEX 3

FURTHER ANALYSIS OF DATA USING THE DATA ANALYSIS MATRIX

The final data that the Resilience Data Analysis Matrix gives us on sheet 9 is a score of resilience for each hazard studied. This score, currently presented in the matrix, is the sum of the capacity scores, but could also be presented as the sum of the capital scores, or a function of the two. However it is calculated, this final score provides us with a nominal value of resilience that can be used as a very simple way of quantifying changes in resilience over time.

Presenting a nominal value for resilience in this way has significant limitations and users of the PRAM are advised to interpret this score with caution, and to take into account that reducing a complex and multi-dimensional concept such as resilience to such an extent will result in the significant dilution of the original data, and could provide a false or skewed picture of changes in resilience.
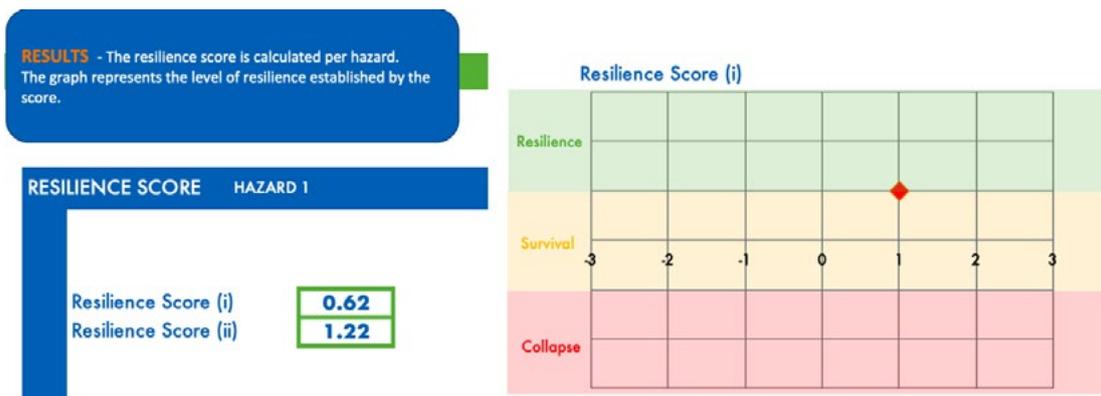
Although its analytical value may be limited, this final resilience score has potential uses in project management, specifically for reporting against results-based management frameworks. When logical frameworks require the inclusion of performance-based indicators (e.g. the number of people in which resilience status has improved) this score may provide a simple way of expressing this change in the population. We can also see if resilience to one hazard has risen over time and resilience to another has fallen, which may call for a deeper investigation into the data to see what might be causing these changes.

PRAM implementers are encouraged to provide an ongoing analysis over time as to whether changes in the final resilience score are consistent with changes observed in the Capitals and Dimensions. This analysis and feedback will be a valuable contribution and inform future iterations of the tool.

ANNEX 4

LINKS BETWEEN THE PRAM AND THE PCVA

The objective of showing the alignment between the PRAM and PCVA implementation process, is to facilitate the coordination of the implementation of both methodologies, and sharing of data and information gathered, to avoid duplication and over burdening the participating population when both activities are being carried out, or have previously been carried out in the same area. Although the PRAM shares several steps with the PCVA, there are some key differences in terms of what is required for the implementation of the PRAM and the levels at which some of the steps are carried out. The graphic below highlights where communication and coordination may be required between the two processes and where information from either process can be used to inform or enrich the other.

PHASE 1: PREPARATION OF THE PRAM STUDY

STEP 1
DEFINE THE OBJECTIVES AND IDENTIFY THE STUDY AREA

STEP 2
COMPOSE AND TRAIN THE TEAM

STEP 3
PREPARE THE PRAM AND PLAN THE FIELD WORK

PHASE 1: PREPARATION OF THE PCVA PROCESS

STEP 1
DEFINE THE OBJECTIVES

STEP 2
COMPOSE AND TRAIN THE TEAM

STEP 3
ANALYSE SECONDARY DATA

STEP 4
SELECT AND MEET THE COMMUNITIES

STEP 5
SELECT AND TEST THE METHODOLOGY

STEP 6
PLAN THE FIELD EXERCISE

PHASE 2: CONDUCTING THE PRAM STUDY

STEP 4
PRAM CONTEXTUALISATION THROUGH LOCAL EXPERT CONSULTATION

STEP 5
PRIMARY DATA COLLECTION

PHASE 2: CONDUCTING THE PCVA

STEP 7
IDENTIFY DISASTER RISKS

STEP 8
PRIORITIZE DISASTER RISKS

STEP 9
ANALYSE DISASTER RISK

PHASE 3: CONCLUDING THE PRAM STUDY

STEP 6
DATA ANALYSIS

STEP 7
DISSEMINATION OF RESULTS

PHASE 3: DATA ANALYSIS

STEP 10
SYSTEMATIZE THE DATA

STEP 11
VALIDATE THE DATA

PHASE 4: ACTION PLANNING

STEP 12
DECIDE ON THE TYPE AND SCOPE OF THE ACTION

STEP 13
DOCUMENT THE ANALYSIS

STEP 14
DRAW UP THE COMMUNITY ACTION PLAN

STEP 15
SUPPORT THE COMMUNITY ACTION PLAN

——— OPPORTUNITY FOR INFORMATION SHARING   ·········· COORDINATION RECOMMENDED

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FOR FOOD.
AGAINST HUNGER
AND MALNUTRITION.

FOR CLEAN WATER.
AGAINST KILLER DISEASES.

**FOR CHILDREN THAT GROW
UP STRONG.**
AGAINST LIVES CUT SHORT.

**FOR CROPS THIS YEAR,
AND NEXT.**
AGAINST DROUGHT
AND DISASTER.

FOR CHANGING MINDS.
AGAINST IGNORANCE AND
INDIFFERENCE.

**FOR FREEDOM FROM HUNGER.
FOR EVERYONE. FOR GOOD.**

FOR ACTION.
AGAINST HUNGER.

**ACTION
AGAINST
HUNGER**